

Luciano Floridi | Jörg Noller [Eds.]


The Green and the Blue

Digital Politics in
Philosophical Discussion



VERLAG KARL ALBER

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Table of Contents

<i>Jörg Noller</i>	
Introduction	7
<i>Luciano Floridi</i>	
The Green and the Blue: A New Political Ontology for a Mature Information Society	9
Discussion	53
<i>Manfred Broy</i>	
Reflections on the essay »The Green and the Blue – A new Political Ontology for a Mature Information Society« by Luciano Floridi	55
<i>Markus Gabriel</i>	
Being Human in the Digital Age: Comments on Floridi’s sketch for a New Political Ontology	71
<i>Armin Grunwald</i>	
The information society: cause for a philosophical paradigm shift? A response to Luciano Floridi	85
<i>Ruth Edith Hagenruber</i>	
Out of the Box – into the Green and the Blue: A Plea for a Post-humanist Information Society	107
<i>Alexander Kriebitz, Christoph Lütge, Raphael Max</i>	
Reflections on Floridi’s »The Green and the Blue: A New Political Ontology for a Mature Information Society«	125

Catrin Misselhorn

Are philosophical questions open? Some thoughts about Luciano Floridi's conception of philosophy as conceptual design and his new political ontology 139

Malte Rehbein

A Responsible Knowledge Society Within a Colourful World: A Response to Luciano Floridi's New Political Ontology 153

Luciano Floridi

Replies to Broy, Gabriel, Grunwald, Hagengruber, Kriebitz, Lütge, Max, Misselhorn, and Rehbein 171

Meta-Replies 193

Manfred Broy

A Brief Final Reflection on the Reply of Luciano Floridi to My Reply 195

Markus Gabriel

Reply to Floridi's Reply 197

Ruth Edith Hagengruber

Reply to a Reply: Knowledge in the Digitized World: The Third Knowledge Dimension 201

Catrin Misselhorn

Reply to Luciano Floridi 205

Luciano Floridi

Postscript 209

About the Contributors 211

Introduction

If the task of philosophy is not only to look back, but also to claim significance for the present and the future, then it must not remain silent about the more recent developments. It must take a critical stance, reflect on everyday phenomena, and even coin new terms that will help us better understand reality – a reality that increasingly includes *digital realities*. The lifeworld significance of digitization is particularly evident in political issues. This volume presents the extended »Jahrbuch-Kontroverse« on Luciano Floridi's essay »The Green and the Blue – A New Political Ontology for a Mature Information Society«¹. This topic is highly relevant because it touches on the following questions: How can Europe benefit politically and socially from the possibilities of digitalization and overcome its crises that have plagued it in recent times? How can it realize a »human project« and reach the unity of »green« ecology and »blue« information technology? How can nature (φύσις) and technology (τέχνη) be united in a politically meaningful way for the benefit of humanity? And finally: How can we develop and cultivate a philosophical discussion of digital politics? In his initiative essay,² Floridi shows how digitization has a very concrete impact on everyday political and social phenomena, and how this transforms our ontology of space and time, as represented since Aristotle and Newton, because is now not so much things as their relations that gain importance.

¹ The main part of this debate appeared in the *Philosophisches Jahrbuch* 2020(2)–2021(2). Luciano Floridi's essay appeared in volume 2020(2), 307–338, the critical discussion in volume 2021(1), 84–169, and his replies in volume 2021(2), 378–393. The other contributions were written exclusively for this collection. In what follows, the original page numbers will be given in square brackets, as well as the minor additions for the reprint. Minor errors have been silently corrected.

² The essay is a short synthesis of some of the topics discussed in the book *The Green and The Blue – Naïve Ideas to improve Politics in an Information Society*, to be published by Wiley.

Floridi's reflections mark the beginning of a digital philosophy or a »philosophy of digitality«, the full consequences of which have yet to be systematically unfolded.³

Following the tradition of past »Jahrbuch-Debatten«, the debate presented below is vehemently fought.⁴ We thank the »sparring partners« involved for their stamina and punch – Manfred Broy, Markus Gabriel, Armin Grunwald, Ruth Hagenruber, Alexander Kriebitz, Christoph Lütge, Raphael Max, Catrin Misselhorn, and Malte Rehbein.

³ For a philosophical definition of the concept of digitality, see Jörg Noller, *Digitalität. Zur Philosophie der digitalen Lebenswelt*, Basel 2022.

⁴ These past debates include, for example, those on Markus Gabriel's »Neutral Realism« and on Rahel Jaeggi's »Critique of Life Forms«.

The Green and the Blue: A New Political Ontology for a Mature Information Society

1. Introduction

In this article, I present some ideas that I hope may help improve political thinking and practice in a mature information society.¹ The ambition is quintessentially philosophical: trying to understand and improve the world, to the extent that each of us can contribute, in this case with some intellectual work. That is all. It is not a little, I realize, but it is not much either. It is the usual paradox: how important is a vote, or, in this case, a conceptual contribution? As much as a grain of sand on the beach: one counts for nothing, two are still nothing, but millions of grains can make a significant difference, if only because, without them, the beach would not exist. This is the *relational value of aggregation*. The ambition is therefore philosophical, but also aggregative, because I hope that the ideas expressed in this article may be useful and find some follow-up.

The ideas presented are philosophical, but they want to avoid being too abstract, so as not to be ultimately inapplicable. However, they do not want to be overly applied either, because it is up to politics to discuss and transform ideas into specific actions. The point is to find the right distance between politics as pure *political science* and politics as a practice of *policy*. For this reason, the correct term to describe the ideas in this article can be borrowed from medicine, where the most abstract theory of a Nobel laureate and the most applied practice of a family doctor are never dissociated: they are *translational* ideas. They have the objective of articulating a foundational reflection that can

¹ It should be clear contextually, but let me clarify that in this article I only refer to good ideas that can influence politics, not to any good ideas in general, for example scientific ideas. This article summarises some of the theses developed in Floridi (2020).

be translated into concrete strategic guidelines, for the realization of specific political, legislative, economic, organizational, and technical actions. It is not an original idea: good philosophy has tried to be translational at least since the time of Socrates. We only lacked the right word.

Offering ideas for improving politics is a political operation in itself. This is because today politics is emerging more and more as a *relational activity* (the central theme of this article), and it is typical of some of the relational phenomena to absorb [308] also their negation. For example, lack of interaction is a form of interaction, as an omission; lack of communication is a form of communication, because silence also speaks volumes about who is silent, and about what they are silent; and lack of information is a form of information, because it has a communicative value, given that a question without an answer is always informative with respect to the need to know something, and to its lack of satisfaction. Politics belongs to this kind of relational phenomena. Not doing politics – for example abstention – still remains a political behaviour, at least insofar as it delegates political decisions to others. It is therefore an illusion to think that we can live in a society and not be political. Only *solitude* can be genuinely apolitical (not *solipsism*, which is only the state of *believing* that one is alone). Even with only two people in a desert island, like Robinson Crusoe and Friday, politics is already inevitable. For this reason, Aristotle was partly right: we are all political animals, because even the attempt not to be political remains a political act. But he was wrong in thinking that we are *voluntarily, continuously, and rightly so*. None of the three conditions is ever entirely taken for granted, and today all are unfulfilled, for the following reasons.

First, because, in every democracy that exists today, we are political even *involuntarily*, that is, against our explicit will, not only unconsciously. And this can generate irritation and conflict since we cannot escape politics even when we want to reject it because it has disappointed us and we do not like it.

Second, because, in a mature information society, we are never »always political«, but more and more often we are political *intermittently*, when social attention is called to express its judgment. For this reason, the communication mechanisms of politics are almost indistinguishable from the communication mechanisms of marketing, especially in countries where comparative advertising is permitted (»this product is better than that one«). The medium

pursues the same goal: to attract or renew and then to keep the attention of the people (be they clients or citizens) on a particular theme, be it a new product or a new political issue. If this happens often, the result is a constant renewal of the stimulus, which requires increasingly intense doses to have some effect. Marketing has its own pace, and so does politics. If politics is the constant pursuit of populist consensus, each political actor will inevitably be tormented by his or her competition, and therefore devoid of control over their diary and agenda. Every move must be countered by another move, everyone chasing one another, no one driving. People do not become used to political solutions but only addicted to the communication that advertises them (or indeed that advertises new political *problems*). Not all current politics shares this asynchrony, but the fact remains that today we need the political call to take action; and yet we are also addicted to this call, requiring an ever-increasing intensity or diversification to be noticed (it doesn't matter what one communicates, it simply matters that it is »new« or else communicated in a »new« way)—and the use of emergency or alarmism as a part of normal messaging. Brexit is a very fitting example. The populist marketing of a single problem, that is, immigrants and hence the European Union, and therefore of the exit from the Union as the only (and stridently) stated solution, has been successful for a thousand reasons, including because of the constant renewal of the advertising message, unrelated to the real needs of the custo[309]mers-citizens. In order to distance ourselves from all this, the following pages should be imagined as read out in a low and quiet voice – without alarmism, re-evaluating a rhetoric of content (semantics) over that of mere form (syntax), and favouring a strategic not a tactical timing, that is, an approach that does not simply react to the news of the political market.

And finally, the third reason is that Aristotle was only partly right about us. He was justified in calling us political animals, but the problem is that, when we are asked to be political, we can easily be so in the *wrong way* (rather than »rightly so«)—when politics becomes a matter of power serving itself, of promoting private interests, or of a majority abusing a minority.

From these reasons it follows that, in any society, politics can never be *denied*, but can easily be *degraded*. The politics of populism, of nationalism, of intolerance, of violence, of extremism, of selfish interests, of passive and indifferent abstention, and at times of sterile protest... all these many kinds of self-centred politics *also* manifest an

understandable dissent against the impossibility of non-politics. But the more such negative politics is expressed, the more it remains a political contribution, generating further and even more negative political reactions, until it ends up occupying all the space of political dialogue, in a downward spiral of negativity that eventually leads to useless polarization and a corruption of society's confidence in its political abilities. Today, there is no lack of good policies to be realized, because there is a lot of intelligence around. What is missing is the right approach to remove the obstacles to implementation, because goodwill, while as abundant as intelligence, has become estranged from politics. By not doing politics, goodwill turns to self-destruction, because it leaves room for bad politics, which in turn negatively influences the exercise of goodwill. The frustration of reason joins the optimism of the heart (to paraphrase Gramsci) in regretting so many opportunities wasted, while the world is in such great need of them.

In the light of these problems, the political ideas expressed in this article are intended to be constructive, non-destructive, and *super partes*, not party-oriented or ideological. Not for anti-party reasons. As I argued above, anti-partitism and anti-politics now belong to the most widespread and sometimes »smart« partisan and political rhetoric. But because these ideas, to the extent that they can be useful, are offered to any political force that is interested in using them to govern better. In other words, the ideas presented here are *open source* and without constraints: adoptable and adaptable by anyone who thinks that they may have some value.

The title of this article takes up an idea, expressed in an article I wrote some time ago, on the need to unite green environmental policies (green economy and sharing economy) with blue digital policies (service economy), in favour of an economy of experience, that is, centred on the quality of relationships and processes, and not so much of consumption, that is, not so much centred on things and their properties.² These are topics to which I shall return in the following pages. Here, I would like to explain in what sense the ideas offered would like to be *naïve*.

[310] The ideas presented are naïve not in the sense that they are *void* of any »cunning of reason« (to use a Hegelian phrase) in the clever calculation of conveniences, or of opportunistic cynicism in the

² »The Green and the Blue: Naïve Ideas to Improve Politics in a Mature Information Society«, in: *The 2018 Yearbook of the Digital Ethics Lab*, 183–221.

evaluation of power. But that they were intentionally *emptied* of it, in retrospect, and with disenchantment, but without disappointment. Think of the difference between a new coffee machine, which is void because it has never made any coffee, and a used and empty one, which contains no coffee because it has been emptied. Coffee tastes better when made in the second one, the one that has been emptied, not in the first, which is still void. In other words, the patina of reflection improves itself. This is why historical memory has enormous value, as a reminder of a presence of meaning, which requires a mental life to be appreciated, and not as a mere recording of facts, for which a digital system is sufficient.

This emptying – or »naïve-fication« to use a neologism – has been pursued in this article to give space to social altruism; to the intergenerational pact; to care for the world; to the sense of common homeland; to civil and ecological liability; to the political vocation as a service towards institutions, the State, and the *res publica*; to a cosmopolitan and environmentalist vision of *the human project*, understood as a society and life that we would like to see realized in the world; and finally the possibility of talking about good and bad politics. These *relations* are all qualified by many values, as we shall see later. Today it takes courage to use these expressions, because political ingenuity is seen as nonsense, for incompetent beginners, or as crafty cunning, for cynical politicians. Many deride it, or suspect it to be mere rhetoric, behind which other meanings, ambitions, messages, or manoeuvres can be hidden, to be deciphered according to the refined art of the most advanced political gaming. These many can stop reading this article. It is not written for them, because it means only what it shows and does not intend to show anything but what it says (to paraphrase Wittgenstein), with the simplicity that should qualify the most serious and mature politics. Or as Paul of Tarsus says in his *Letter to Titus*: »Everything is pure for the pure [*Omnia munda mundis*]; but nothing is pure for the polluted and infidels; their mind and their conscience are contaminated (1:15)«. The contaminated should take no offence, but they will not understand it.

By adopting this »naïve« approach, this article does not disregard Machiavelli or Hobbes, Locke, Rousseau, Kant, Mill, or Rawls. Yet in the end it is based, laicly, on the most forward-looking strategy contained in *Matthew 18:3* »if you do not become like children you will never enter«. *Ingenuousness* (naivety) is the point from which we start and to which we must return as *ingenuity* after the

enriching path of reflection. It is sometimes the highest degree of sophistication to which we can aspire. Ithaca is a good analogy. And if this »forward« return to naivety (not backwards regress) perhaps cannot save the soul, maybe it can save politics. For this reason, a more adequate title for this article could be, in a less arrogant and ambitious way, »ideas that *would* like to be naïve«.

Europe needs good ideas for a political government strategy that values and promotes its potential at best, not so much as a post-industrial society, but as a mature information society. The Union is emerging from a long period of crisis, at least as regards the economy, if not also the social aspects (especially in terms of the fracture of the social pact, even intergenerational, reduction and impoverishment of [311] the middle class, less social mobility, and polarisation of opportunities that are not fairly equal), political (especially in terms of crisis of trust in institutions, populism, and personalization of politics), and cultural (national identity, immigration, role of Europe in a globalised world). In this delicate phase of recovery, the point is not being original at all costs, or imitating the US or China or other political realities, but recognizing and taking full advantage of the specific strengths of the many Europes that the EU contains, while reducing their weaknesses, and above all identifying the obstacles that do not allow these two operations. In light of this strategy, the wish is that the following naïve ideas, offered to improve policy, will be of some help.

I avoided as much as possible technical expressions and bibliographic references. They do not serve but hinder the development of ideas and the flow of reasoning. Philosophy is *conceptual design* (Floridi 2019). At its best, it analyses fundamental problems – that is, those richer in consequences (like the first dominos in a chain)—and articulate, in a factually correct and logically cogent way, solutions that are always open to sensible, informed, and urbane discussion, because the problems in philosophy are intrinsically open. Scholarly and rhetorical trappings unnecessarily burden it, hiding its rational and functional structure, and I have therefore tried to avoid them.

2. The idea of a transition from things to relationships

Our way of thinking – especially in economics, law, politics, and sociology – is still dominated by a profound and implicit philosophy

of an Aristotelian and Newtonian nature, and it is now obsolete. In order to label it, we may conveniently refer to this »philosophy behind philosophy«—this conceptual paradigm that we do not question when we do philosophy – as our *Ur-philosophy*.

The Aristotelian and Newtonian *Ur-philosophy* has worked well in the past: our way of thinking is still unknowingly formatted by it precisely because of its great success. Let's see it briefly, to understand why it would be a mistake to continue to apply it (perhaps by adapting it), to try to extract from it the right answers to the new political questions posed by the information society.

An Aristotelian *Ur-philosophy* conceives of society as lego-like in structure. There are many units of bricks that connect to other units of bricks, from the bottom to the top, to create complex structures, interacting with each other. Bricks or atomic (i.e., not further divisible) entities are *natural* or *legal* persons. And their various combinations are the couple, the family, a generation, a social class, an ethnic group, an industrial sector, an administration, a political party, and so on. The properties (what qualifies the bricks for what they are, for example »age«, or »is a company«) and behaviours (what qualifies the bricks for what they do, for example »teaches at a high school«, »manages sales in a shop«) of bricks/persons combine in a more or less complex way. They thus give rise to inherited properties and behaviours. The assumption is that, for example, honest bricks/persons create an honest-emerging built society; or, with another example, unfairly advantaged [312] bricks/persons create an unfairly built society. In more precise but technical terms, our Aristotelian *Ur-philosophy*, and the related sociological thought that is based on it, uncritically assumes an ontology formalized by »naive set theory«.³ This considers a set (in our case the society) as a variously complex and differently structured collection of simple objects, called elements or members of the set. And it analyses all the other non-atomic »social objects« (family, generation, social class, party, trade union, etc.) in terms of sets of natural or legal persons.

To this Aristotelian *Ur-philosophy* of things one then needs to add a Newtonian conception of space – for example, the house, the city, the region, the territory, the nation, the country, the borders, the land, the sea, the sky – and of time – for example, the days, the months

³ See for example (Halmos 2017). Axiomatic set theory analyses sets on the basis of the relation of satisfaction of specific axioms.

and the years, the history, the tradition, the recurrences, the deadlines, the holidays – understood as two rigid and absolute reference frameworks or containers (not related to anything else), which are dynamic only insofar as they tend to an ideal definitive stability. Imagine a large box, space, in which the persons-bricks interact, in a linear and irreversible way, along the arrow of time. The fascist concept of »living space« (»spazio vitale«) and the Nazi concept of »Lebensraum« are ideological aberrations of this Newtonian Ur-philosophy of physical space as geographic territory and physical time as a calendar.

As a whole, our Aristotelian–Newtonian Ur-philosophy of things, time and space puts all the emphasis on the concept of *action* as the essential point (the ontological variable, we would say philosophically) on which to press constructively in order to modify or improve the behaviours or properties (nature) of the elements/persons themselves and, above all, of their structural combinations, and therefore of the society they constitute. To simplify: according to this vision, society changes by operating on the *actions* of the natural or juridical persons that constitute it. The actions are therefore the point of pressure of the system on which to intervene in order to be able to manage, drive, or modify a society. From this, there follows a vision of law as a system through which one shapes the actions of agents-bricks (and their compounds) in time and space.

The metaphors of society as a body, organism, or system, or that speak of coordination, cohesion etc. are all based on this Ur-philosophy. One finds it in Menenius Agrippa's *Apologia* and later in Paul of Tarsus' advice to the Corinthians, as well as in the first pages of Hobbes's *Leviathan*. And from Weber onwards, the emphasis of sociological theorising on the concept of action indicates how the design of social architecture is still concentrated today on forming and directing behaviours by focusing only on actions and their effects as the entry points for any policy.

The crowning of the Aristotelian–Newtonian paradigm in sociological thought is the idea of constructing the social mechanism: atomic entities in their own right, thanks to their properties and behaviours, are combined into a structure that has its properties and behaviours, like an analogue clock. The construction of the desired mechanism, for properties or behaviours (in our case, a society), starts from the identification of the necessary and sufficient components needed to make it happen. [313] If the mechanism does not work, or works in an unwanted manner, one may repair, modify, or add the

responsible components, or the components that are necessary and sufficient for the solution, until they work as desired. The concept of »performance« and its quantitative analyses are the contemporary translation of this Aristotelian–Newtonian approach.

The Aristotelian–Newtonian paradigm has had its merits, but today it no longer responds to the needs of a mature information society, that is, a society whose members assume the digital as a foregone phenomenon (I will return to this concept later).

Since the twentieth century, the most formal and quantitative sciences – from mathematics to physics, to logic – confronted with more difficult conceptual challenges, have been forced to abandon the old Aristotelian–Newtonian Ur-phi[314]osophy or, if they still adopt it, they do so critically and with full awareness of its limits, essentially as a fall-back. Their »new« (but in fact now a century old) Ur-philosophy can be defined as *relational*. The problem is that our brain, our sensory apparatus, our languages and our Western cultures, by their nature, hypostatize (i.e. reify, or with a more intuitive term »thing-fy«) the world, organizing it as lego: first there are things (nouns), then there are the properties of things (adjectives), and then behaviours of things (verbs). For example: Alice (what) writes (behaviour) with the blue pen (thing + property) on the white paper (what + property), and so on, for the rest of our experiential world. This is the way we are used to thinking. Our Aristotelian–Newtonian Ur-philosophy is so powerful because it is the codification of our deepest intuitions as intelligent mammals.

A *relational* Ur-philosophy uses sophisticated mathematical tools to overcome the obstacles of Aristotelian–Newtonian intuition and common sense in the various scientific fields. For example, relativity theory requires vector spaces, in which tensors are used to describe space and time in terms of four-dimensional spacetime. And category theory replaces set theory to uncouple the foundations of mathematics from the assumption of first elements understood as things, according to the Cartesian metaphor of the apples (elements) in the basket (together). The two examples are important, but they are also a bit disheartening. Because they are complicated and difficult. And if the request advanced in this article is to change the way we think politically, in the same way that we were forced to change our thinking on physics and mathematics, the suspicion that we are heading towards a resounding failure is justified. We can hardly understand how our democratic systems work. How can we

therefore abandon such an intuitive and familiar Ur-philosophy in sociological reflection like the Aristotelian–Newtonian one, when we will have to dialogue with everyone (given no-one can exist outside of politics, as discussed), but without necessarily relying on a common conceptual vocabulary, especially when human reflection focuses on its conceptual and factual artefacts, such as society, economics, jurisprudence, and politics, which, by their nature, invite us to linger in a »natural« way of thinking? Society not only interprets itself in terms of »lego«, it also builds itself in terms of »lego«. Changing both trends seems a titanic effort destined to fail.

It must be admitted that the abandonment of an Aristotelian–Newtonian Ur-philosophy is a really difficult conceptual transformation, much more difficult than accepting that the earth is not flat, or at the centre of the universe, or that each of us is in large part a field of forces. The phenomena investigated – in our case, society and politics – impose a paradigm shift in a much less steady way (in terms of less intractable problems to be solved), and with much weaker standards (in terms of evaluation of the solutions). In other words, the Aristotelian–Newtonian Ur-philosophy is natural, intuitive, familiar, does not easily show its limits, and has worked in the past. The alternative is untested, counter-intuitive, unfamiliar, it is not how we conceptualise the world and our societies in it, or how we go about designing and constructing them, and does not really seem to be forced upon us by the nature of the problems with which we are dealing. It is going to be a hard selling.

An excellent example of this inability to think outside an Aristotelian–Newtonian paradigm is provided by Margaret Thatcher, not by chance an Oxford graduate in chemistry with a specialization in crystallography (few other scientific areas appear more Aristotelian–Newtonian). The »lego« model – which, I repeat, is now inadequate but difficult to replace – is evident in her famous interview from 1987:

[T]here is no such thing as society. There are individual men and women, and there are families. And no government can do anything except through people, and people must look to themselves first. It's our duty to look after ourselves and then, also to look after our neighbour. People have got the entitlements too much in mind, without

the obligations, because there is no such thing as an entitlement unless someone has first met an obligation.⁴

Note the admission (for political rhetoric) that the family should be considered to be a basic element of society. In fact, it is contradictory: where does a family end? Do we include only parents and progeny, or even grandparents and aunts and uncles? And the cousins? And on what basis do we admit »the family« and not, for example, a group of families who are related to each other and represented by a village? And why not admit the whole human family? A dangerous slippery slope for any coherent thinker who is not also a politician.

The same (unsatisfactory) Aristotelian–Newtonian Ur-philosophy – this time stated almost literally, given the etymology of economics as regulation (*nome*) of the house (*oikos*)—is evident in Thatcher’s simplistic conception of politics and the economy:

Any woman who understands the problems of running a home will be nearer to understanding the problems of running a country.⁵

Aristotle would have been happy with this statement. But we are not. Because today it is virtually impossible to understand accurately – and even more so, to manage successfully – in a simple framework of home government and ordinary Aristotelian–Newtonian insights, phenomena such as the purchase of their own shares (»buy-backs«) by a company; a policy of negative interest rates (a tax on [315] owning money, to use Gesell’s expression), supported by an inflationary monetary policy; the popularity, in recent times, of negative-performing government bonds, such as those issued by Germany; the fact that austerity is better exercised when it is possible but unnecessary, that is, in moments of economic growth, and not when it seems necessary, that is, in moments of crisis, when it is damaging; the goodness of a minimum degree of inflation; or populist and self-destructive phenomena of democratic implosion, like Brexit, the Trump presidency, and the success of populist parties in the Italian elections of 2018.

Society is not lego, and politics or a nation’s economy cannot be understood in terms of mere management of household affairs. Thatcher was wrong. It is as if the CERN wanted to use only New-

⁴ Interview 23 September 1987, cited in Douglas Keay, *Woman’s Own*, 31 October 1987, pp. 8–10. https://en.wikiquote.org/wiki/Margaret_Thatcher.

⁵ BBC (1979), cited John Blundell, *Margaret Thatcher: A Portrait of the Iron Lady* (2008), p. 193. https://en.wikiquote.org/wiki/Margaret_Thatcher

tonian physics to understand the behaviour of subatomic particles. The point is not that Newtonian physics does not work, but that it no longer works in this case, and that this case is now the more fundamental one.

In order to cope with the new challenges posed by mature information societies, where well-being is higher and more widespread than in the past (and compared with other developing societies), and the degree of complexity and interconnections is now profound, political thought must take a step forward and update the common-sense intuitions espoused by the Aristotelian–Newtonian paradigm. But what concept can today replace the main one of a social *thing*?

Almost a century ago, Cassirer identified the end of what I have defined here as the Aristotelian–Newtonian paradigm in the transition from the centrality of the concept of substance (things) to the centrality of the concept of function (relations) in mathematics and physics (Cassirer 1923). He was right, and the next step is simple: a function is only a special kind of univocal relation between input and output.⁶ It is therefore a matter of appreciating the possibility that it is not the concept of »thing«, but that of »relation«—which refers to what constitutes all things and connects them among themselves – that can play a foundational role in the political thought of the twenty-first century.

We saw the difficulties, but there are also good reasons to be optimistic about the conceptual feasibility of this paradigm update. The conceptual vocabulary of relations is sufficiently rich, semantically, to allow us to express everything we want to express in the political vocabulary of things, their properties, and their actions. In more precise terms, the concept of relations is powerful enough to define all the necessary ontology.⁷ This semantic equipotency makes possible something far more important than a mere translation exer-

⁶ Here, »relation« is to be understood in the logico-mathematical sense, as anything that qualifies every thing – human, natural, artificial – individually (e.g. Alice is unmarried, which is a *unary* relation) or not individually (e.g. Alice and Bob are married, which is a *binary* relation; or Carol is sitting between Alice and Bob, which is a *ternary* relation; and so forth for any *n-ary* relation).

⁷ All entities are reducible to bundles of properties, and all properties are reducible to *n-ary* relations, so all entities are reducible to the totality of bundles of relations. Behaviours and changes in properties of entities are then reducible to state transitions, and the latter are reducible to transitions from one set of relations to another. In short, one can use the vocabulary of relations to speak of entities, properties, actions, and behaviours – and that is all that is needed. Note that this is not a metaphysics, but a

cise. It has the enormous advantage of mov[316]ing and expanding (the dual movement is crucial) our focus first on the *analysis and design of relations*, rather than on the realization of specific actions or interactions, as the main point of pressure on which to operate to try to improve a society in a lasting and not ephemeral way. In simple terms: economics, jurisprudence, sociology, and above all, in our case, politics, become relational sciences of the links that make up and connect the *relata* (not just people, but all things, natural and constructed, and therefore their environments and ecosystems), even before being behavioural sciences studying the nature and actions of those special entities (that are natural and legal persons understood as things). In this, Hegel and Marx were perhaps prescient when they put the accent not on people themselves, but on the dialectical relationships *between* people.

This shift in conceptual paradigm changes the implicit operating model, which is no longer that of the Aristotelian–Newtonian *mechanism*, rather rigid and restrictive, but that of the force field or relational *network*, much more flexible, inclusive, and unbounded. In a network, nodes (including all people, but not only) do not pre-exist to be connected by relations, as is the case for the lego bricks or the components of a mechanism. Rather, they are the relations that make up the nodes, in the same sense in which the roads constitute the roundabouts. Therefore, if the properties or behaviours of the nodes-entities can be improved, it is on the nature and the number of the relations that constitute them that we must intervene. The new model, placing the relations at the centre of the socio-political debate, is more easily able to include in its analysis *all* the entities (*relata*), not only persons, but also the world of institutions, artefacts, and nature.

We know that things are discrete and can easily be grouped in separate sets. For example, we can group the set of all Italian citizens, the set of all French citizens, and the set of all citizens with both nationalities. Venn diagrams are popular for this reason. But social relations tend to be intertwined and continuous, with varying degrees of intensity, from weak to strong. In our example, we may be better off by speaking of Italian citizens who have relations with French citizens and vice versa in a variety of ways, i.e. relations that are more or less intensive, superficial, fruitful, frequent etc. As a consequence, in

way of describing the world at a relational, instead of substantial, level of abstraction. That is, it is an epistemological ontology.

a »relation-oriented« and not »thing-oriented« policy, it is no longer the quantifiable amount of »performance« of things that is the main parameter of evaluation, but the degree of solidity and resilience of the relations that constitute things and bind them together, citizens included. When today we observe that, in some European countries, for example, the financial and political crisis has been addressed thanks to the efforts of families or social institutions, what we are actually saying, looking more carefully, is that it is the social network that today is making possible and less traumatic the transition from an industrial country (production of things and quality of things) to a country with a green and blue digital economy (production of services-functions and quality of experiences). This is not at all to contradict the phenomenon of globalization. On the contrary, a relational and not »substantial« (thing-oriented) view of society explains the current tendency of politics to become global and cosmopolitan, more based on diplomacy (a coming together of relations) than on war (a clash of things) according to a *reticular philosophy*.

[317] This paradigm shift, which has been necessary since the rise of information societies, implies the abandonment not only of an Aristotelian ontology of the primacy of things, but also of a Newtonian ontology of space and time as rigid containers, within which things are positioned, move, interact, and change. Let's see how.

A network is a logical space, not a physical one, in which distances are measured with metrics that are not Euclidean. With an elementary example: in chess, the distance between a pawn and the queen is symmetrical in the Euclidean sense, for example 10 centimetres from the pawn to the queen and therefore from the queen to the pawn. However, it is asymmetric in the logical sense, for example a step from the queen to the pawn, but three steps from the pawn to the queen. Still in chess, the diagonal is necessarily longer than the column from a Euclidean point of view, but on the chessboard it has the same length in terms of number of squares, and therefore the king takes the same number of steps in covering both. In our case, with the arrival of the Internet, the space of politics (a relational and therefore logical space) no longer overlaps, indistinguishably, with the space of geography (a »substantial« and therefore physical space) of national sovereignty. This has been the case for a long time, since the old Westphalian identification of legal space with political space. On the contrary, the space of politics becomes the spatiality of social relations, including those of strength. The old concept of a »zone

of influence« already anticipates this idea in part. For example, the Mediterranean nature of Italy is above all cultural (i.e. relational), not merely geographical; likewise, Denmark is a Scandinavian country; and Spain can be as Mediterranean as Greece. This is why the EU should allow the expulsion of European member countries that do not respect agreements and shared values, and drop the geographical clause that prevents a non-European State from joining the European Union.⁸ More Europe also means having the courage to abandon the twentieth-century geographical space, on which the EU was founded, to adopt a relational spatiality, making possible the exclusion of European countries that repeatedly deny the values of the EU, because geography is no longer sufficient, and the inclusion among its members also of countries not belonging to the continent, but which respect and promote its values, because geography is no longer necessary. From this new perspective it would be very reasonable to think of Canada, for example as a possible member of the EU, as has already been done in the past.⁹ If this relational approach seems counterintuitive, consider that it was already adopted with Cyprus, a State that, in terms of Newtonian space, geographically belongs to Asia, but which rightly entered the EU in 2004 on the basis of a spatiality made of historical–cultural relationships.

Similarly, political time takes care of the temporality of relations. For example, something becomes possible only after something else has happened: a concrete [318] discussion of the feasibility of Eurobonds is conceivable only after the approval of the German government, in terms of the logic of chronological relations (before, during, after), and not of calendar year or calendar (absolute dates and times). And intergenerational relations are no longer relations between lego-like Aristotelian–Newtonian persons, but relational ties between node-like persons, something the vocabulary of politics describes as »social fabric«, a crucial concept on which we need to pause for a moment.

⁸ Article 49 (formerly Article O) of the Treaty on European Union, or Maastricht Treaty, states that any *European* country that respects the principles of the EU may apply to join. A country classifies as European »subject to political assessment« by the European Commission and more importantly – the European Council. This geographic membership criterion was later enshrined in the so-called Copenhagen criteria.

⁹ See <https://mowatcentre.ca/canada-should-join-the-eu-sort-of/>.

To introduce this idea, it is useful to start from another version of the quotation from Thatcher we have already seen, on the sole existence of individuals and the non-existence of society:

A transcript of the interview at the Margaret Thatcher Foundation website differs in several particulars, but not in substance. The magazine transposed the statement in bold, often quoted out of context, from a later portion of Thatcher's remarks: »There is no such thing as society. There is living tapestry of men and women and people and the beauty of that tapestry and the quality of our lives will depend upon how much each of us is prepared to take responsibility for ourselves and each of us prepared to turn round and help by our own efforts those who are unfortunate«. ¹⁰

In a tapestry the fabric is woven in blocks of coloured weft threads, which are beaten down very tightly on the warp threads, producing a picture or pattern. When the work is finished, the warp threads are hidden. Weft and warp are sets of threads. Each thread is individual and the figures in the tapestry (and the tapestry itself) emerge from their intertwining. So, Thatcher was right in the choice of her conclusion: her likening of the »social fabric« to a tapestry is correct, if one looks at the internal coherence of her ideas. But a fabric does not necessarily have to be »woven« like a tapestry, it can also be knitted (a word that comes from »knot«, which clearly relates to network), like a blanket. And in this case, it is a fabric formed by a number of consecutive rows of intermeshing loops. The loops do not pre-exist the fabric, but co-exist with it because of the common thread. Thus, Thatcher was wrong in choosing the premise: because the social fabric is a lot like a knitted blanket, not so much like a woven tapestry. It is not a new idea (Blondell 2005), politics as weaving a society together is already present in Plato's *Statesman* (308–311) and in Aristophanes' *Lysistrata* (565–86):

Till from the vast heap where all is piled together at last can be woven [ὄφῆναι] ¹¹ a strong Cloak of State.

Finally, the *personal* fabric is the »inter-temporality« of an individual life, that is to say, the fact that human existence, individual and social, is like a knitted thread, whose loops must relate correctly

¹⁰ See https://en.wikiquote.org/wiki/Margaret_Thatcher.

¹¹ From ὄφαινω meaning not only to weave a web, but also metaphorically to create, to construct, hence to contrive and to plan.

with each other according to a coherent design. For example, if one invests in higher education one should then find a place in society to work. There must be inter-temporal links that give meaning to paths, trajectories, expectations, individual and social human projects (more on this later), [319] and so on. Politics must know how to take charge of the »inter-temporality« of people's lives and of the intrinsic relationships and connections between the phases of human existence, addressing not only individuals' interests but also their hopes, by means of a human project, as we shall see next.

3. The idea of a human project

By »human project« I mean the kind of life and society we would like to achieve. In a more simplistic way, it is what political parties, often without critical conscience, try to summarize in their electoral slogans, for example »For the many not the few« (British Labour Party, 2017), or »Building a country that works for everyone« (British Conservative Party, 2017). In a more analytical way, the human project is the form of human life – programmatic in its various individual, collective, private, and public manifestations – that a society presents and promotes from time to time as desirable, at least in theory or implicitly, and depending on historical moments.

Perhaps a close, philosophical term to describe the concept of human project is the Wittgensteinian term of humanity's social *Lebensform*, but the concept of human project is not just descriptive is also normative, in the Kantian sense of *regulatory ideal*. It is plausible that each human project, at every stage in human history, is not entirely feasible, or is only minimally feasible, and therefore should be understood only as a goal. Despite this limitation, two crucial observations remain correct.

First, each society incorporates its own human project, no matter whether this is only implicitly or explicitly pursued, whether it is coherent or contradictory (for example, when it comes to promoting several projects that cannot be reconciled with one another), pragmatic, realistic, or utopian. This happens for two reasons. Because individuals get together, voluntarily or not, on the basis of a shared purpose – the human project – be this positive (as in Plato or Rousseau), in order to achieve a higher degree of trust, coordination, and collaboration; or negative (as in Hobbes or Kant), in order to

achieve a lower degree of distrust, conflict, and insecurity. The second reason is because the very absence of a human project is *itself* a project. We are back to the relational nature of phenomena that also absorb their negations. Not having a project does not mean you are doing without one, but rather that you have opted for a bad project, underdeveloped and uncontrolled. It follows that a society without a human project does not exist. There are only societies with human projects that are more or less good, achievable, or compatible with each other.

Second, although every society usually tends to absolutise its human project as *unique* (there is only one, its own), *eternal* (its own is always valid) and *universal* (its own is valid everywhere), in reality there is no single human project, but as many human projects as there are societies, states of societal evolution, and historical circumstances in which they are found. This *pluralism* is not *relativism*, as if one were saying that every human project is necessarily as good or bad as any other. In [320] reality, it is a matter of adopting a serious and relational way of describing the plurality of the projects in question, as made possible also by what has already been achieved, and therefore known, and by what has not been realized, but it is conceivably achievable. The human project described by Cicero in *De Republica* is very different from the one described by Tocqueville in *De La Démocratie en Amérique*, and neither is easily applicable today to the information society.

Among the various factors that explain the sense of radical transformation and uncertainty characterizing our time there is, above all, the implicit perception of the absence of a human project in the information societies that are maturing before our eyes. The metaphor is that of ever-faster traveling in a still unknown and sometimes obscure direction. The problem is exacerbated by the fact that we do not have a human project for the digital age (to be precise: we obviously have a project – as absence of project is itself a project – it is just not planned). However, we do have a postmodern [in a chronological and non philosophical sense] starting point, in the sense of an incomplete meta-project shared by the industrial and post-industrial consumer society, which today characterizes many advanced economies. The old project is dying but the new project struggles to come to life, to paraphrase Gramsci. Both terms, »meta-project« and »incomplete«, need to be clarified.

The postmodern meta-project consists in the fact that the information society, like the consumer society, pursues the human project to make the various individual human projects possible and compatible with each other. In other words, in the best of cases, today the human project is reduced to the support of individual projects (aspirations, hopes, plans etc.), that is, to the social project to make the various individual projects feasible and compatible with each other. To exemplify, we do not pursue a »happy society«, but rather a society in which every individual has the opportunity to pursue his or her own happiness, provided this is not at the expense of others. The examples can be multiplied: we do not pursue a rich society, but a society in which every individual has the opportunity to get rich within the limits of legality; not a healthy society, but a society in which every individual has the opportunity to live and take care of him or herself in a healthy way within the available constraints; and so on.

The meta-project is clearly *liberal*. The purpose of the State is centred in defending and promoting the rights of each member of society, in a mutually compatible way. And the mechanism on which this relies is that of the »spontaneous« emergence of the desired social-relational properties, starting from the realization of the individual relations that are supported. It is an approach still based on the »lego« model we already encountered. In the previous example, allegedly, a happy society would spontaneously emerge from the happiness of its members. Economically, this emergentism goes well with *liberalism*: the State ensures a free market in which individuals can own, produce, and trade economically, within the limits of legal compatibility. In some cases, ethical liberalism and economic liberalism end up supporting political *libertarianism*, which promotes the maximum reduction of the functions of the State in favour of the freedom and responsibility of individuals.

The liberal and postmodern meta-project is incomplete because it focuses only on the interests and hopes of the individual, or at most of the person, including the [321] legal person (think of corporate taxation), but does not provide, nor does it mean to provide, programmatically, an indicative framework on the kind of society that one would like to build together, and for which coordination of the efforts of many, if not all, is needed. I will return to this second point in the next section. Here it is worth stressing that, in the past, starting from the twentieth century, the incompleteness of the postmodern meta-project was made less evident by the great historical disasters

of the two World Wars and by the ensuing reconstructions, by the Cold War, and by political and religious ideologies. Whenever we had to fight together against something for something – for better or for worse – or to build or rebuild together what we inherited from this fight, or whenever we adopted a collective ideological or religious faith, in all these and similar cases the postmodern meta-project was supported *externally*, by other social or community projects, which hid its incompleteness. The great movements for various human rights, the pacifist and ecological movements, for example, have provided the social component to the postmodern human project, which otherwise would long have remained limping on the single leg of the individual human meta-project. In the best of cases, these external social projects have been »included« in the human project, providing it with the non-individualistic component. Think of the work of Martin Luther King in the United States, the fall of the Berlin Wall and the reunification of Germany, or the end of Apartheid in South Africa. The same happened for political and religious ideologies. Fundamentalism and populism are also answers addressing, implicitly and uncritically, the incompleteness of the current human project.

Today, the gap between social projects and political projects is extreme, and the former can no longer hide the incompleteness of the latter (using a British example, Cameron's »Big Society«, with volunteering replacing government services while hiding a paucity of political ideas, did not last long and was a failure). The social project, whatever it is, is no longer part of the political project. Quite the opposite, it often distances itself from the political project in an anti-political way, falling into the negative dialectic described in the introduction. The proof is that the world of volunteering and therefore social commitment grows together with disenchantment for political commitment, and its refusal. For example, according to the latest ISTAT data, in 2013 in Italy 6.63 million people (12.6 % of the population) volunteered their time and work for free and for the common good. In the light of what I have argued, this is not a contradiction, but a consequence of an incomplete human project: politics has not taken on a social human project, and this need, which goes beyond individual human projects, is otherwise met, outside of politics.

This generates three risks. We have already discussed the first one. Community activism, detaching itself from the human project, risks leaving it unlimbed and limping. The second is the double illusion that community activism can somehow compensate for the

absence of a *social* human project – as opposed to an individual human project – and that politics can not only be left limping but continue so without any negative consequences. The third is that community activism is confused with the social human project and tries to replace it, through movements that claim to be political, but do not intend to do politics positively, because they fail to recognise that *good politics is the properly regulated evolution of community cooperation*.

[322] All this leads to a crucial question, which is essential if we are even to hope to be able to outline a good human project for a mature information society: if it is possible to adopt not only an individual meta-project, but also a social project – and this conditional is not rhetorical at all – is it possible to do so today without falling into a right-wing or left-wing ideology, or a religious one? In other words, is a *complete* human project possible, both as a meta-project for the individual and as a social project, that is neither ideological nor transcendent? I believe the answer can be positive, but the room for manoeuvre is narrow. Let's examine it.

It is indicative that one never speaks of a centrist ideology. The centre of politics does not have its own ideology because, in the best of cases, it transcends the latter, adopting ethics as the main and superior guide. And in ethics – from Aristotle to Rawls – the end is always that of equilibrium and of a collaborative reconciliation of interests, rather than the imbalance of the confrontation of parts, in a zero-sum game. The centre does not promote or lead »political struggle«, but creates political convergence; connects, does not disconnect; it does not quarrel, it argues. For this reason, the human project that we can hope to draw today can proceed socially and not only individualistically (and hence only metaprojectually), if it is pursued in an ethical-centric way, and not in an ideological way of left or right; and in an immanent and not transcendent way, staying within history and improving it from within, not coming out of it in a saving way, and rejecting it. That is to say that good politics will no longer take left vs. right seriously, but will concentrate on centrist alternatives that have more or less successful strategies to approach the human project. To be coherent, the ethics to be adopted will have to be inclusive of all those parts of the world and society inevitably ignored by the meta-project, that is, those parts that do not play an active role in presenting and managing their own interests and rights in the first person. It is one of the great lessons that political commitment can learn from the community commitment: the human project for the digital age and

for a mature information society must include the »silent world«: the marginalized, the disadvantaged, the weak, the oppressed, the past generations to be respected, and the future ones to be facilitated, the environment (natural and artificial), and that semantic capital formed by culture and memory. In other words, it must be an ethics of the interests of all the »patient« nodes (those who receive the effects of political action), and of the various networks that they form, and not only of the individual »agent« nodes, whose interests are already taken care of by the meta-project component, which knows their requests because they are presented explicitly and constantly. It will have to listen to those who are not heard by the meta-project.

As for the relationship with religion, the human project must support a secular and immanent society, while being fully respectful of the faiths that can not only cohabit but also flourish within it. The reasons in favour of a lay human project are many. Only a secular society can be coherent with the meta-project, which, to repeat, is a project to facilitate individual projects to the extent that they are mutually compatible. Only a secular society can be truly tolerant, that is, sincerely respectful and supportive of the great variety of individual human projects. And only a secular society can lack any interest in proselytism, and not fall into the temptation of [323] *imposing* a specific vision (religious or otherwise) of the human project at the expense of other visions, or a specific evaluation of the world as comprising »we« and »they« (religious divide). The human project will need to be secular and lay because ethics can unite and support faith, but faith often ends up dividing and defeating ethics.

To sum up, the human project for a mature information society must first be ethical and then be political, and it will have to be made up of two components, one now classical, represented by the liberal meta-project that favours individual projects, and the other still to be built, which can also make social sense of the way we live together, as a community. The fact that today there is no serious utopian thinking shows that we have not yet developed the second part. To fill this gap, we need an important thing: a good ethical infrastructure that allows coordination and care of the social fabric. This is the topic discussed in the next section.

4. The idea of an infraethics

It is a sign of our times that, when politicians speak of infrastructure nowadays, they often have in mind information and communication technologies (ICTs). They are not wrong. And it is an old story. From success in business to cyber-conflicts, what makes contemporary societies work depends increasingly on bits rather than atoms. Depending on their digital infrastructures, societies may grow and prosper. And it is ICTs that can also present a catastrophic weakness, in terms of cyber security and the vulnerability of our increasingly networked critical infrastructure. We know all this. What is less obvious, and philosophically more interesting, is that ICTs also seem to have unveiled a new sort of equation.

Consider the unprecedented emphasis that ICTs place on crucial phenomena such as accountability, intellectual property rights, neutrality, openness, privacy, transparency, and trust. These are probably better understood in terms of a platform or infrastructure of social norms, expectations and rules, that is there to facilitate or hinder the moral or immoral behaviour of the agents involved. By placing at the core of our life our informational interactions so significantly, ICTs have uncovered something that, of course, has always been there, but less visibly so in the past: the fact that moral behaviour is also a matter of »ethical infrastructure«, or what I will simply call *infraethics*.

The idea of an infraethics is simple, but the following »new equation« may help to clarify it further. In the same way as business and administration systems, in economically mature societies, increasingly require physical infrastructures (transport, communication, services etc.) to succeed, likewise human interactions, in informationally mature societies, increasingly require an infraethics to flourish. The equation is a bit more than just an analogy between infrastructure and infraethics. When economists and political scientists speak of a »failed state«, they may refer to the failure of a *state-as-a-structure* to fulfil its basic roles, such as exercising control over its borders, collecting taxes, enforcing laws, administering justice, providing schooling, and so forth. Or they may refer to the collapse of a *state-as-an-infra[324]structure* or environment, which makes possible and fosters the right sort of social interactions. This means that they may be referring to the collapse of a substratum of default, accepted ways of living together in terms of economic, political and social conditions, such as the rule of law, respect for civil rights, a sense

of political community, civilised dialogue among differently-minded people, ways to reach peaceful resolutions of tensions, and so forth. All these expectations, attitudes, rules, norms, practices – in short, such an implicit »socio-political infrastructure«, which one may take for granted – provides a vital ingredient for the success of any complex society. It plays a vital role in human interactions, comparable to the one that we are now accustomed to attributing to physical infrastructures in economics.

The idea of an infraethics can be misleading, because, despite the economic analogy, an infraethics should not be understood in terms of Marxist theory, as if it were a mere update of the old »base and superstructure« idea. The elements in question are entirely different: we are dealing with moral or immoral actions and not-yet-ethical facilitators of such moral or immoral actions. Nor should infraethics be understood, conceptually, in terms of a kind of second-order or metaethical discourse about ethics, because it is rather the not-yet-ethical framework that can facilitate or hinder evaluations, decisions, actions, or situations, which are then moral or immoral. At the same time, it would also be wrong to think that an infraethics is either ethically *neutral* or simply has an ethical *dual-use*, because its dual-use is always *oriented*. If it were just *neutral*, this would mean that an infraethics would not affect either ethical or unethical behaviour, a mere logical possibility that is utterly unrealistic. In philosophy of technology, it is now commonly agreed that design – in any context, society included – is never ethically neutral, but always embeds some values, whether implicitly or explicitly. Yet this does not mean that an infraethics is simply dual-use, as if it could both facilitate and hinder morally good as well as evil behaviour in equal degree, depending on other external factors. The textbook example is the knife that can save a life or murder someone. And the trivial comment is that its use and hence moral evaluation depends on the circumstances. This is true, but insufficiently perceptive. Because not all knives are born equal. The very short, blunt, round knife that an airline provides to spread butter has a dual-use that is hugely oriented to fulfil a purpose that the butcher's knife can also fulfil, but much less easily. A bayonet has a dual-use only theoretically, because it is designed to kill a human being, not to cut bread. Likewise, every infraethics may be dual-use only in principle: in fact, if it is a good infraethics, it means that is oriented towards facilitating the occurrence of what is morally good. At its best, an infraethics is the grease that lubricates the moral

mechanism in the right way and successfully. So, it is easy to mistake the infraethical for the ethical because, whatever helps goodness to flourish or evil to take root, it partakes of their nature.

As I mentioned in the previous section, speaking of the need for a human project that is not only meta-conceptual but also social, every society – be this the City of Man or the City of God, to put it in Augustinian terms – pursues its human project (even if only unconsciously) by adopting (even if only implicit) an infraethics, which can be more or less morally successful, and more or less evil-unfriendly. It follows that even an ideal society of angels, that is, a society whose nodes are all [325] impeccably good moral agents, needs infraethical rules for coordination and collaboration. In other words, not even a society of angels can succeed if it is exclusively a libertarian one. It too needs a social project to support its development. Thus, James Madison was *partly* (more on this specification below) mistaken when he famously wrote that

If men were angels, no government would be necessary (*The Federalist* No. 51, 1788).

He was partly mistaken because he had a merely negative anthropology in mind – the one so well-articulated by Thomas Hobbes in his *Leviathan* and *De Cive* («homo homini lupus») and never revised nor criticised by John Locke – and an atomistic view of society as a mere aggregate of individuals (recall the Aristotelian–Newtonian Ur-philosophy). Yet even a society of angels would still need some form of government, and hence an infraethics, to coordinate its good deeds, set common goals, evaluate the degree of success in pursuing them, and rectify the course of actions as a group, if necessary. Because »good« can always be »better« and »we the people« is not equivalent to a mere aggregate of all the Alices and Bobs in the world. An arch is not only a pile of stones. There is a moral goodness that is entirely social and does not emerge merely from individual moral goodness. Because goodness is also a matter of ambitious agency: what »we the people« can do and hope to achieve together, as opposed to what Alice and Bob could ever do individually. Angels would still need an infraethics to organise a party, or to push-start a car. It is not always true that every little effort helps: an angel attempting to push the car on its own will only waste its time and effort, completely. A multi-agent system – many angels working together to push the car successfully – needs coordination and control if it is to achieve

anything. We should also regard evil as a matter of opportunity costs (not just bad deeds), that is, what *could* have been done that wasn't. Without a system of governance, the angels will miss performing many good deeds that are only available to them as a group. This cost can be very high and morally negative in any society.

I specified above that I take Madison to be only »partly« mistaken about his positive assessment of angels as requiring no governance because that sentence should be read within its context, which states that

If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal *controls on government* would be necessary (The Federalist No. 51, 1788, my italics).

The part in italics shows that Madison was actually referring to the need to structure the government with checks and balances (that is, with external and internal controls). So, one may read him more charitably, not as saying that any government, or any infraethics, would be unnecessary – as stated in the first sentence – but rather as saying that one designed on the basis of an angelic anthropology would be. That is, he might be interpreted as arguing not that rules for coordination would be unnecessary, but that special constrains on the application of these rules would be unnecessary if we were angels, because those governing and those governed would behave according to the proper application of the rules all the time. With an [326] analogy, he might be read as saying that, if all men were angels we would still need driving rules to coordinate driving behaviours, but no police to enforce them.

Insofar as Madison was mistaken – the first sentence of the quotation above definitely is, and it is often interpreted by itself as meaning what I took it to mean above, as if every law and social regulation were based only on the dialectic between »crime and punishment«—it would also be wrong to dismiss the crucial importance of an infraethics not only from a libertarian but also from an anarchist perspective. In this case, the reasoning shares the premises and draws a different conclusion: if men were angels they would need no government, but men (sometimes) are angels, and so (sometimes) they do not need government. The spontaneous emergence of the morally good is therefore (erroneously) assumed as both natural and uncontroversial by libertarian and anarchist alike. Yet the truth is that without an infraethics to begin with (i.e. internal controls), and then

the issuing of good governance that supports it (i.e. external controls), not enough moral goodness could ever be achieved individually. A multiagent system like a whole society needs its own organisation and governance, precisely because it is not an old Aristotelian–Newtonian cuckoo clock.

If we now return to the *oriented dual-use* of an infraethics, one may argue that a society of Nazi fanatics could rely on high levels of trust, respect, reliability, loyalty, privacy, transparency, and even freedom of expression, openness, and fair competition, without being for this any less evil. Clearly, what we want is not just a successful framework of facilitations and constraints provided by the right infraethics, but also a coordinated cohesion between them and morally good values, such as human and civil rights. This is why a balance between security and privacy, for example, is so difficult to achieve, unless we clarify first whether we are dealing with a tension within ethics (security and privacy as moral rights, i.e., both understood as »water« in the earlier analogy), within infraethics (both are understood as not-yet-ethical facilitators, i.e. as part of the pipework), or between infraethics (security intended as facilitator or »pipe«) and ethics (privacy intended as a value, or »water«), as I suspect to be the case.

The right sort of infraethics is there to support the right sort of values (that is, axiology). Designing it, maintaining it and keeping it updated is one of the crucial challenges for our information society. It is also one of the reasons why, in terms of innovation, our age is the age of *design*, even more than an age of discoveries or inventions. Clearly, when politicians talk about »infrastructure« nowadays, they often have to deal not so much with bits and atoms, but rather with the infraethics and the values it supports. It is mainly working on these last two factors that politics can best support the right human project at the right time – for a mature information society.

5. Ideas for a mature information society

We have seen that political thought should move from a »substantial« to a »relational« approach, from mechanisms to networks. This means thinking of politics as [327] a *science of relations* and as a guide and management of the *ratio publica* (more on this later) even before the *res publica*. The new relational paradigm helps us to

understand how an information society, which is mature in terms of its socio-cultural expectations, can articulate and pursue its own complete human project – that is, both an individual human project as a meta-project for individual projects, and a social human project, for group projects – using the right infraethics to organise itself and realise it. All this makes possible, and at the same time requires, good ideas for a better politics. This is both in the sense of positive conditions of possibility, which aim to draw and then build what is or should be a good democracy for a mature information society, but also in the sense of negative conditions of possibility, which reveal the presence of bad politics, which hinders the construction of what is or should be a good democracy.

In this section, I present some of these ideas, those that today seem to me to be the most important. They can be read as conceptual explanations or logical consequences of a single premise: what a good politics for a mature information society is – that is, a politics that intends to pursue a complete and ethically desirable human project, through an effective and sharable infraethics.

I have tried to facilitate the task of the reader by schematically separating the various ideas and numbering them, so that it may be easier to agree or disagree with each of them. I have italicized some key concepts when they are introduced for the first time before being discussed or explained. And I tried to make the text readable on two levels. The first level is a network that simply connects every numbered idea, readable as a node, while ignoring the paragraphs below, which represents a further analysis. For those in a hurry, it should be enough to read just the numbered phrases. For those who have time and patience, the second level is more in-depth and sequential, and requires a non-reticular reading.

1. A society is the totality of the *relations* that constitute it.¹²

This is because a society is a network formed, and not merely composed, by many individuals, who are not like stones collected in a pile, but who interact, coordinate, and change.

2. A *good society* is a *tolerant* and *just*, and therefore *peaceful* and *free*, society.

¹² The implicit reference to proposition 1.1 of Wittgenstein's *Tractatus* (»The world is the totality of facts, not of things.«) is meant.

These four moral values, presented in order of logical precedence, are essential. They refer to the four conditions identified by Locke (tolerance is the foundation of peace), by Mill (tolerance is the foundation of freedom) and, between the two, by Kant (justice is the foundation of tolerance). However, in this article I argued that tolerance and justice have this logical order (tolerance has priority over justice), even if they are co-necessary.¹³

3. A *civil society* is organized into a political community, called a *polity*.
4. A *government* is the executive guide of the polity. [328]
5. *Governance* is the activity of the government.

Governance includes the design and management of social policies, with proper oversight, transparency, and accountability.

6. *Democracy* is the best way to create and maintain the governance of a polity.

This is because democracy maximizes the just care and tolerant flourishing of individual, social, and environmental relations, paying attention to the satisfaction of the interests, needs, and reasonable hopes of not only all persons (both physical and legal) but of all related »things«, that is, the human, natural, and artificial *relata*.

7. The best form of democracy is *representative*.

This is because a necessary condition of democracy is the structural separation between *popular sovereignty* (those entitled to vote hold political power and can legitimately delegate it) and *political governance* (those who rule receive political power and can legitimately, transparently, and accountably exercise it, through revocable delegation). From this it follows that all forms of dictatorship – including that of the majority – spring from the self-legitimizing merging of *sovereignty* and *governance*, that is, between the possession and the exercise of political power. Every form of government and governance is fallible: sometimes they do not work, or they work badly. From this it follows that a representative democracy is preferable to a dictatorship not because it works better, but because it is much more *resilient*: when it does not work, it works much less badly than a

¹³ See also (Floridi 2016, 2015).

dictatorship because it causes less damage and admits of change and repair.

8. Good democracy allows voters to choose between *real alternatives*.

This means that the multiplication or superfetation of choices and the lack of real alternatives of content is a hallmark of any anti-democracy in any political regime. It reduces the space of political decision: voters choose between options (as in a restaurant menu), but do not decide between alternatives (which restaurant to go to).

9. Good democracy offers the right *granularity of alternatives*.

This means that the more we collect packages of choices (bundles) in individual blocks on which to ask to decide politically, the less good the democracy in question is. This is an argument in favour of a mixed electoral system, with some balance between majoritarian and proportional features, to reach the right level of granularity.

10. A good society requires a *good politics*.
11. Politics is bad when it does not allow change to an individual's *starting position*.

The impossibility of modifying one's starting position constitutes another hallmark of the anti-democracy of a political regime, and it is equivalent to the reduction of space in the construction of the human project. Social mobility, for example, is a sign of good politics.

12. Politics is good when it seeks to take care of the *prosperity* of the *whole society*, of all the people who belong to it, and of public and common goods, including natural and artificial environments, which belong to it or in which it lives.

[329] »All« here means, ideally, not only the society that expresses it, but the entire human society, the whole network.

13. *Prosperity* is a relation that includes the protection and promotion of civil liberties, education, security, wellbeing, and equal opportunities. Following a relational and not »substantial« approach, arguing that good politics takes care of the prosperity of the whole society, of all the people who belong to it, and of public and common goods (including natural and artificial environments), means ensuring that politics is *reticular*.

14. The *ratio publica* is the totality of public, individual personal fabrics, the social fabric and the fabric of public and common goods.
15. Good politics is *reticular* (fabric-like), as it takes care of the interconnectedness of all nodes and relations (*ratio publica*).
16. Politics is bad when it tears the fabric of the *ratio publica*, failing to ensure a minimum level of decent life, individually and socially. For this reason, the violation of the dignity of the person or of groups of people constitutes another hallmark of the anti-democracy of a political regime, reducing the space within which one may flourish in a society.
17. Good politics is *universally participatory*.

Good politics requires the input and active participation of all the components of a society, including industry associations, companies, and administrative structures. Good politics is successful only if there is the involvement of all the stakeholders, at all stages, from the initial brain storming and reflection, to the development of good ideas, to their discussion and implementation. Participation has no natural boundaries, but only pragmatic limits. This is why good politics is also inevitably *cosmopolitan*.

18. Good politics can be transformed into good governance only thanks to the positive support of the *public administration*. Failing to work in synergy with the public administration is not only a strategic mistake, because the public administration knows the mechanisms and degrees of feasibility of political projects from within, it is also a mistake of perspective, because only the commitment of the public administration can guarantee the continuity and the final success of the projects even across several governments.
19. Implementing good politics together with the social partners and the public administration means drawing the basic relational mechanisms that facilitate the desired behaviours and hinder the unwanted ones.

This means working with policies »by design«, which give shape to the conditions of possibility of behaviours that one wants to determine or modify. Designing such conditions means creating relational mechanisms that work not merely according to a logic of control and of possible sanctions, but above all according to a logic of reflexivity of self-reinforcement: virtuous circles such that the more they work, the better they work. For example, the widespread interest of citizens

in the use of digital payments instead of cash can result, as a beneficial side effect, in greater tax control on the transactions themselves and therefore on tax evasion, a decrease of which could lead to a reduction in the tax burden, an improvement in the economy and greater incentive to use [330] digital payments, and so on. It is therefore a question of technically designing virtuous circles that improve society and which are strengthened the more they are used.

20. Good politics pursues its aims, including its human project, through the promotion of *economic well-being*, freely enjoyed or sought by people, not through the exercise of *coercion*.
21. Good politics does not use *coercion* as a means but, classically, maintains its *monopoly on violence* to eradicate it altogether, or replace it with peaceful, equitable, sustainable, and productive *competition*.
22. Good politics is guided by good ideas in satisfying, reconciling, and prioritizing, within its human project, the reasonable hopes and legitimate interests of people and society, with regard to individual, social, and environmental prosperity.
23. Ideas are good when they provide politics with strategies that are *feasible* (achievability), *efficient* (cost), *effective* (result), *shareable* (consensus), and *desirable* (ethics) to take care of individual, social, and environmental prosperity.
24. Good ideas are generated by good *reflection* and are consolidated by good *practice*.
25. Reflection is good when it is *rational* in its reasoning, *informed* about facts, aware of its *fallibility*, *tolerant* of different opinions, and open to *constructive dialogue*.
26. Reflection takes place in the *public sphere*.
27. The public sphere is part of the *infosphere*.
28. A practice is good when it is *transparent* in the sense that is both accountable and auditable.
29. A good reflection is promoted by a good political debate.
30. A political debate is good when it is based on a good reflection and decides, in a satisfactory way, on the goodness of the available ideas, on their compatibility and priorities, and on how to achieve them, creating a fair and open market of tolerant and just ideas.
31. Good ideas are not partisan but, because of their nature, they are *shareable* by more than one political program.

Knowing how to recognize and support good ideas, regardless of the source and the context that offers them, is essential in a political context that is increasingly »on demand« and »just in time« and less and less »always on«, in which the management of the attention of the civil society must be based on the forward-looking interest in the proposing of good and relevant ideas, and not on alarmism, emergency, or recurrent crises.

32. Sharing good ideas regardless of line-ups or political programmes means privileging *ethics* to *ideology*.
33. Good ideas motivate politically (in a sort of political *psychagogy*¹⁴) by relying on three factors: *hope* (which can also be altruistic and public, and when negative can become *envy*), *interest* (which is usually only personal and private, and [331] when frustrated can become *anger*), and (inclusive disjunction) *reasonableness* (from common sense to logic, from the correct use of facts to probabilistic reasoning).
34. *Hope* motivates more than *interest*.

There is no personal interest – including the fundamental one for one’s own well-being or that of others, and for one’s own survival or that of others – that cannot be overcome by hope, to the point that people can commit suicide because of their hopes. For this reason, fundamentalist or ideological terrorism, when it is driven by hope, cannot be fought or counteracted by appealing to interest.

35. *Interest* motivates more than *reasonableness*.

There is no reason, including mathematical certainty, which cannot be neglected, perverted, or underestimated for personal interest.

36. The *hubris* of reason consists in its faith in the cogency of its own epiphany.

In other words, reasonableness (the epiphany of reason) is not necessary and can be insufficient (is not cogent enough) to motivate politically. Reasonableness is reconcilable with hope and interest but motivates less than either. This follows from the previous points. It is why the most rooted greed, which is based on selfish interest,

¹⁴ In ancient Greek philosophy and early Christian theology the term refers to »guiding the soul«, e.g. through reflection and education about correct conduct and the obtainable virtues. Today, it refers to attempts to influence a person’s behaviour, e.g. by suggesting desirable life goals.

cannot be fought by appealing to reasonableness. In particular, social problems – above all, corruption, fundamentalism and intolerance, exploitation and violence – and environmental problems – above all global warming, biodiversity loss, pollution, and violence on animals – cannot be solved by leveraging only reasonableness as motivation.

37. Good politics is successful if it motivates above all on the basis of hope, then of interest, and finally of reasonableness.

A winning political campaign, from Berlusconi to Trump, from Brexit to the populist movements in Italy, devalues the present, that everyone has an interest in changing as always unsatisfactory, and overestimates the future, that everyone is hoping to be better. A losing campaign, from Hilary Clinton in the US, to the Remainers in the UK, or the defeat of Renzi and his Partito Democratico (PD) in Italy, values the present as already satisfactory, often indicating how much better it is when compared to the past,¹⁵ disappointing the hopes of all those who want it to be better; and evaluates a possible future as worse or risky if the alternative wins, thus frustrating the electorate's hopes, promising only a reasonable yet unattractive *more of the same* (another Clinton presidency, the usual European Union, another Renzi government), that is, a losing political message. [332]

38. *Fear* is only an indirect motivational basis.

This is because anyone who has no hope, or has no interest, or does not listen to any reason, cannot be motivated by fear. Fear works only if it frustrates or threatens hope, interest, or reasonableness.

39. *Punishment*, understood as an instrument for the management of fear and therefore of interest, is always ineffective if it generates desperation, understood as a total lack of hope.

40. *Public opinion* is born of the hopes, the interests and the reasonableness of the public that expresses it.

Public opinion is rarely reasonable (it is not an expression of *nous*), it is often above all *emotional*, in terms of hopes and fears, and *instinctive*, in terms of interests (as an expression of *doxa*). Therefore, its formation is very rarely deliberative but above all psychological and hence rhetorical.

¹⁵ See the list of U.S. presidential campaign slogans: https://en.wikipedia.org/wiki/List_of_U.S._presidential_campaign_slogans.

41. The *rhetoric of reason* is the best way to shape public opinion politically.

Good ideas alone are never enough; they need to be explained and supported in a persuasive way.

42. Good ideas are *timely* (they work at the right time, that is, they are *kairological*, the work at the right *kairos*) not *timeless* (as if they worked any time), and therefore *dynamic* and always *updatable*.

This is because the solutions they propose are *not immutable*, like the laws of nature, but *contingent*, like human history, and must evolve with the problems they face. The timeliness of good ideas is neither *relative* – as if it depended entirely on circumstances and always and only changed with them – nor *absolute* – as if it did not depend on circumstances at all, and never changed in relation to them. It is *relational*, because it depends in part on the circumstances and changes interactively with them, trying to improve them.

43. It is on good ideas, their priority and feasibility, that *consensus* must be created.

44. Consensus is the cooperative and contextual convergence of relations.

45. The two fundamental values that qualify political relations are *solidarity* and *trust*.

46. Politics as a practice is the totality of *solidarity* and *fiduciary* (trust-based) relations that organize and guide a society.

47. *Solidarity* regulates needs in a society and is at the root of *green* (environmental and ecological) solutions.

This is solidarity understood as the mutual care of relations with others, with the world, and with future generations. Without this solidarity there is only a free market but no fair prosperity.

48. *Trust* regulates actions in a society and is at the root of *blue* (digital) solutions.

This is about trusting ourselves, each other, the future, human ingenuity and its products, and the potential goodness of their applications. Without this trust there is only management of political power and a market of people's views, but not also a good policy and a market of ideas.

49. Politics takes care of the relations that make up and connect things.

Focusing on the primacy of relations rather than on the primacy of things – for example, on the primacy of the concept of »citizenship« rather than that of [333] »citizen«—means that good politics must move from taking care of the good management of the *res publica* to taking care first of all of the nature and the healthy growth of the relational network that constitutes a society, its members, and its environment, that is, the *ratio publica*, as previously defined. The fabric of the *ratio publica* is the inter-spatiality of historical–cultural relations that give identity to a society and its members.

50. Criminal politics is a form of *mafia*.

Mafia replaces politics in taking care of the relations that make up and connect things. This is why it is incompatible with the State and survives only by becoming an alternative form of governance.

51. Politics, when it does not work, can only be repaired if its relational nature is repaired.

Politics is malfunctioning when the two main relations of solidarity and trust do not work. It can only be repaired by repairing the two relations. This should be a reason for some comfort and moderate optimism, because it is easier to repair relations than the *relata*, that is, the things constituted and connected by the relations. For example, it is easier to repair the relation of trust between two political parties than »repair« the political parties themselves to make a relation of trust work.

52. Good politics is metaprojectual, that is, it supports the *individual human project*.

Every individual is a path of self-realization, through which a person progressively becomes more and more himself or herself. This individual, open and autonomous construction (*poiesis*) of the self is a delicate process because every individual does not exist in their own right and alone, but comprises a knot of relationships, fragile, flexible, and easily influenced and damaged. Politics supports individual self-construction (*autopoiesis*), providing the conditions for its realization, especially in terms of tolerance, justice, peace, freedom, security, education, respect and recognition of others, and equal opportunities. Politics is malfunctioning when any of these conditions is not met.

53. Good politics support the *human social project*.

Every society is in constant tension, even if only implicitly, towards the realization of what it would and should be, that is, as a shared and shared human project, which is an open-ended work in progress. Politics is concerned with supporting and implementing the best possible human social project, in a critical and conscious way, that is compatible with the historical circumstances in which it arises, and the individual human projects of which it takes care.

54. A fundamental value promoted by good politics is *just tolerance*.

Starting from Locke, tolerance lies at the root of the modern political era, as a request to keep every individual and social human life always open to choice, change, and rethinking. Tolerance must be just, i.e. attentive to the negative effects of its excessive application. But justice itself must be tolerant of difference, of error, of the possibility of doing otherwise or better, of starting again, and should not rely on the excessive application of protocols and automatisms. Justice recognizes the logical superiority of tolerance when it assumes, as its [334] own limit, the acceptance of unjust injustice rather than unjust punishment: better a criminal outside prison than an innocent in prison. Hegel was right (*pereat mundus ne fiat iustitia*) not Kant (*fiat iustitia, pereat mundus*).

55. The exercise of just tolerance promotes the care for *human fragility*.

56. Respect for human fragility should be a *universal right*.

Individuals are delicate informational organisms, open and adaptable to change, malleable by education and imitation, transformed by events, changed by circumstances, influenced by the flow of information and the informational environments in which they find themselves. The first duty of politics is to ensure that human fragility is always respected and never exploited or abused.

57. Politics does not *log out*.

Socio-political relations can be modified but not denied. So, the rhetoric of being inside or outside (for example of Europe) is made hollow by the fact that, in a global relational network (*cosmopolitanism*), one cannot be disconnected, but only connected, and this in a more or less correct and coherent way with the social human project pursued. Bad politics does not disconnect (log out) but badly connects

(short-circuits) the social relations and interfaces that must facilitate and coordinate them. The impossibility of politics to log out is the new embodiment of the old-fashioned, Aristotelian idea of politics being always-on. The continuous political nature of everything that happens in a society (no logout) should not be confused with the discontinuous political nature of social engagement (politics is now on-demand).

58. Politics is *cybernetics*.

In Plato, the *kybernetes* or »steersman« is the pilot of the ship, which navigates in the right direction, even against the current or unfavourable winds, and therefore sometimes indirectly and obliquely. Politics' main task is not to manage the *speed of change* (for example *technological innovation*), but to determine the goodness of the *direction of change*. It may or may not have a foot on the brake or the accelerator, but it must have hands on the steering wheel. The high speed with which a society proceeds in its transformations can be a good thing, if the direction chosen by politics is the right one.

59. Politics is *Markovian*.

Like a chess game, politics is constrained by the past, but it knows only the present, to be managed and negotiated (and in case criticised), and the future, to be designed and planned (and in case promised). This is so because voters have no memory. Whatever politics delivered in the past, whether a problem or a solution, is taken for granted. The only past that is present in the voters' minds is unrelated to history and is part of a story-telling. So those who shape the narrative of the political past control its impact.

60. Democratic politics is *binary*.

Democracy is usually defined in terms of the *shared values (semantics)* or *rules (syntax)* adopted by a society. In reality, semantics and syntax presuppose a previous *structural step* of separation between two elements: *sovereignty* (possession of political power) and *governance* (the exercise of political power). Without this binary structural condition, a democracy flattens out into a dicta[335]torship, in which the majority (which owns and exercises political power) imposes its will on the minority, whose individual or collective human project is not protected.

61. The space of politics is part of the *infosphere*.

Today the *space of politics* – understood also as *public space* (see above) and as a *deliberative exercise* – is always *online*: partly online and partly offline, partly analogue and partly digital. And it is so also for those who are still excluded from the digital revolution (those on the wrong side of the *digital divide*), because their choices are conditioned, influenced, or determined by those who are included.

62. Good politics today must make *capitalism sustainable* and *fair*.

Capitalism is the best system known to date to produce wealth, but not to produce it in a *sustainable* way (in terms of *environmental impact*) and to distribute it *fairly* (in terms of *social equality*). Good politics rectifies robustly these two limits, while supporting *private property*, *project ownership*, *competition*, *innovation*, *investment*, and *profit*.

63. Good politics today must replace *consuming* the world with *fostering* it.

In the past, capitalism has been seen as an inseparable counterpart to *linear consumerism*: producing, using, consuming, and disposing of things. But now this link can and must be severed, in favour of a new coordination between capitalism and the economy of caring for the world (that is, *circular fostering*). Moving from a politics of things to a politics of relations, it is easier to start building a post-materialist and post-consumeristic society, which privileges a *circular economy* of services and experiences in a fair and sustainable way.

64. Good politics organizes and manages a *capital of citizenship*.

Every generation enjoys the work, the efforts, and the sacrifices made by all the countless past generations, because each generation is the heir of past humanity and in turn leaves its legacy to the next generation. Politics in the twenty-first century should adopt strategies to distribute and capitalise on the benefits of inherited wealth, guaranteeing to members of society not only equal opportunities but also a capital of citizenship to support individual projects.

65. The State is an *interface* that performs a function of relational support for the creative and fruitful strategies implemented by a society.

The State is not the point of arrival of the legal–political organization of a *polity* – which we have seen to be a political community, that

is, the political ordering of a society – but the relational meeting point – that is, a *dynamic interface*, that can be realised in a variety of ways – between polities, that is, between a society that organizes itself through it, and the other societies, organized like other States, in the rest of the world. Citizens interact politically among themselves and with the world through the interface-State, to which they belong, and the various interfaces within the State (e.g. at the regional or city level). Different dynamic interfaces allow this interaction and communication, which does not require a single model at all – think of the various models of State organization, for example federations, presidential republics, constitutional monarchies, and so on. In the digital age and globalization, it may seem that [336] the State no longer has a key function, and that the alternative is either a more rooted localization and corresponding micro-nationalisms – see the many phenomena of independence in various European States, from Spain to Great Britain, from Germany to Italy – or a multinational globalization consonant with markets, large companies, and intergovernmental institutions. In reality, the greater the globalization, the more necessary is the State, understood as an interface of communication, interaction, and coordination between local and global realities. The crisis of the modern State is not a crisis of »necessity« but of »sufficiency«: the State is increasingly necessary, but also increasingly insufficient, to take care of the *ratio publica*. It is joined by many other equally necessary agents: supranational organizations, international institutions, and multinational companies.

66. A State is good when it implements good politics.

67. Good politics is *multiagent*.

The State has the convening power and the duty to coordinate (infraethics) other agents to take care of the *ratio publica*. Above all, the State should call all the stakeholders, including the corporate world, to share the responsibility, in a visible (transparency) and responsible (auditable accountability) way, of making policies together, in a multiagent pact guaranteed and managed by the State itself. This is also true at the supranational level, where the European Union, for example, has the strength and the duty to coordinate other States and stakeholders to take care of the European *ratio publica*.

68. Good economic policy is an economy of *onlife experience*.

The time available and its quality are the most important (finite, non-transferable, and non-renewable) resource for every individual. Therefore, the prosperity of individuals, their societies, and their environments is also assessed on the basis of the management and enrichment of their individual and social time. The modern era is widely interpreted as the period during which humanity has managed to »heal« more and more time – especially thanks to the improvement of living standards, scientific research, and national health systems – and to »free« more and more time – especially thanks to the various phases of industrialization and technological development, to trade, and to socio-political conditions. We live longer and better than any other past generation; and we live with much more time and income at our disposal. This is why, today, an innovative economy of growth should focus on the management and enrichment not so much of working time, but of healthy or healed time – that is, the time spent without suffering and illness – and of leisure or liberated time – that is, the *disposable time* (in analogy to disposable income), which is *available* and *onlife*, not bound by work commitments, and *usable*, that is allocable to activities of choice. In a world in which healthy time and free time will increasingly expand, the corresponding economic activities linked to their intelligent management and their fruitful use will be increasingly crucial. The future of advanced economies is not in the consumption of things but in the enjoyment of experiences. [337]

69. The solutions of good politics are *green* and *blue*.

The marriage between nature (*phusis*) and technology (*techne*) is vital for the prosperity of the planet, its inhabitants, and therefore every society. Today, the solutions found by good politics, in order to design and pursue the human project for a mature information society, must be both green (environmental and cultural economy and policy), and blue (digital economy and information policy). Environmental, artificial, cultural and digital environments must be fostered to ensure that they coexist in symbiotic relationships of mutual benefit. Not only must they be protected, but they must also be valued as resources for individual and social well-being, and not wasted. And they must be taken care of in a holistic way. This also means that the mentality of the exclusive protection and care of environmental and cultural assets – the environment and culture as a burden and cost for society, education included – should be transformed into an economic strategy

of promotion and utilisation, seeing the environment and culture as precious capital to be put to use, for the benefit of the whole society that expresses it, and dependent on digital technologies.

6. Conclusion

When we talk about the digital revolution it is natural to ask ourselves what the next radical transformation will be. Human history certainly does not end here, and there will be other extraordinary changes that we cannot even imagine. These are real unknown unknowns. Just think of what we would have answered, say, in 1920, if someone had asked us to predict the future in 2020. It is simply unimaginable what the world will be like in 2120. That said, the right perspective is that digital technologies will certainly bring other incredible innovations, but the transformation from an entirely analogical world to one that is also (and in some places, perhaps above all) digital has already happened. More will happen, but not this. Our questioning is a bit like wondering what else to expect after arriving on a new continent. We have »landed« on the digital, and we have mapped only the coasts (to continue the analogy), but the historical step has been taken. A small one for this generation, but a giant leap for future ones. So now the most important revolutionary challenge is understanding what to do with this new continent, all to be built. In other words, the new real challenge is not digital innovation but the *governance* of the digital. Digital governance is currently delegated (or abrogated) to the corporate world – primarily American – which follows a logic of profit-seeking and implements an entrepreneurial culture. This is fine in itself, but it is also an unsatisfactory solution as a whole because it risks ending up as a colonising monopoly – while missing the immense, counterbalancing contribution from (and to) the rest of society. However, to support and complement a necessary but insufficient corporate governance of the digital, we need above all good political strategies and courage in making the right social choices. In other words, there is a great need for good politics. [338]

Bibliography

- Blondell, R. (2005), »From Fleece to Fabric: Weaving Culture in Plato's Statesman«, in: *Oxford Studies in Ancient Philosophy* 28, 23–75.
- Cassirer, E. (1923), *Substance and function, and Einstein's theory of relativity*, Chicago.
- Floridi, L. (2015), »Toleration and the Design of Norms«, in: *Science and Engineering Ethics* 21(5), 1095–1123.
- Floridi, L. (2016), »Tolerant Paternalism: Pro-ethical Design as a Resolution of the Dilemma of Toleration«, in: *Science and Engineering Ethics* 22(6), 1669–1688. doi: 10.1007/s11948–015–9733–2.
- Floridi, L. (2019), *The Logic of Information: A Theory of Philosophy as Conceptual Design*, Oxford.
- Floridi L. (2020), *Il Verde e il Blu – Idee ingenue per migliorare la politica*, Milan.
- Halmos, P. R. (2017), *Naive set theory*, Mineola/New York.

Discussion

Reflections on the essay »The Green and the Blue – A new Political Ontology for a Mature Information Society« by Luciano Floridi

1. Information Society Impact

There can be no doubt: information society is not coming, it is present and it is correct to speak about an information revolution, certainly! Our society has changed in the last 30 to 40 years more than ever before its way to handle, to deal with, and to exploit information. This is a revolution with deep impact on our human everyday life, since information may be the most significant concept that characterizes human beings. Consciousness, behavior, understanding, communication, decisions are all based on information. After the first industrial revolution, the revolution of the mechanical production machines, we now encounter the revolution of the information machines.

Luciano Floridi writes in his essay about »the Green and the Blue«. The »Green« addresses environment, culture, economy, and ecological policy, and the »Blue« addresses digital technology, and information policy, as well as digital economy. Both are important aspects of our society and, so far, they seem to stand quite unrelated side by side. So far, society seems to be unable to find a solution to take care of both of them.

In the following, we concentrate on the »Blue« and the »Green«, meaning on questions related to digital transformation and questions of ecology. Luciano Floridi discusses much more in his article about politics, in general, but I do not intend to comment on this. Perhaps the best way to read Luciano Floridi's essay is to start with its end. I fully agree to his conclusion that we landed on a new continent, which we call digital, and, as he says, we have mapped at most the coastline. So, the historical step has been taken, perhaps even a small one for

this generation, but a giant leap for the future one. Now, we have to understand this new continent and all to be built.

Even as a computer scientist, I agree that the new, huge challenge is not digital technical innovation, but the governance of the digital. This is in many aspects true for many companies, true for a lot of states and governments, and true for a large number of organizations of our society. Floridi's next remark is correct, too: digital governance is currently delegated to the corporate world, preliminarily the North [85] American one, as Luciano Floridi writes, following a logic of profit seeking and of implementing an innovative entrepreneurship culture.

I agree to this observation – Floridi is right. However, perhaps it would have been good also to consider and to mention China, where digital governance is interpreted differently from the American way. Nevertheless, many of the thoughts of Luciano Floridi apply to China, as well, including the risk of Europe ending up as being colonized by some global entrepreneur monopolies while missing the immense counterbalance in contributions for the rest of the society. In addition, as Luciano Floridi ends, we need – above all – good, encouraging political strategies to make the right social choices to laws supporting and complementing the digital instead of insufficient corporate governance seen so far. In other words, there is a great need for good politics. How could I agree more?

2. European Needs

Certainly, it is more than true that Europe needs new ideas for a political government strategy that promotes its potential best as a mature information society. Moreover, I agree to the idea of a transition from things to relationships. Although, obviously, following the arguments of Luciano Floridi that change has started even before digitization started, however, it is radically reinforced by the digital transformation.

However, coming back to the main text of Luciano Floridi: a lot of it is not about the very amazing development of the digital and its influence on society and politics – and the »Green«. It is a bit more general and asks general questions about good politics. It starts with a number of very abstract remarks about ideas for improving politics in a political operation in itself and that politics is emerging more and more as a relational in contrast to a hierarchical activity. Therefore,

one of the changes in how we can see and model our society is a step away from a more center-oriented model for our society into one, which is based on the quality of relationships and processes. This is generally called the step from the conventional state approach to a more relational one. Certainly, this is right and it is close to models that we find also in computer science, but it is not clear, what is the cause and what is the effect. Obviously, these changes have started more than 100 years ago, 20 years before Zuse built the first programmable computer. At this time, there was nothing what could be called the digital or digital natives which are today much more related to networks, relations and to sets, and which influence and form the structure of our society. There seems to be a feedback process going on here between changes in the society and those caused by the digital – all run by the »Blue« and in no way by the »Green«.

It is correct that structures, which are built by the digital, are no more a structure of things and also not hierarchies, in general. These rather form relations, even networks of relations, where elements may occur in several relations that constitute things and bind them together. This fits also better to a service-oriented society and to the network-effects, we have seen so many times in the digital age. This is also [86] reflected in the development of the hyperscalers, which govern the structure of the World Wide Web. The web is a network of data and services, it is a logical space with distances completely different from distances we know from real world geographical spaces, and in fact, it constitutes a relation. In the end, it is much closer to an ontology that identifies a space of notions than to any physical structure.

Nevertheless, we get used to the fact that we understand complicated relationships in the line of the web of notions much better, if modelled by relations. This also means that the cognitive view onto relations influences the way we think about relationships and the items connected by them, and it is true, spatial politics become the speciality of social relations. The same applies to a number of further notions. The place of understanding notions becomes the speciality of ontological relations.

What is definitely needed is a »human project« as Luciano Floridi calls it. The human project is thought to define a goal for a society. As Luciano Floridi points out correctly, the goal of a society cannot be to be just more digital, not even to create more wealthy people or companies. These are, at most, side effects and not proper goals. In a

human project, it has to be defined what the main goal and purpose of a society would be. Then all the other targets are secondary and have to support the primary goal.

3. Human Projects

I like the idea very much to start considering the »Blue« and the »Green« from the idea of a human project. We live in a very diverse world where a high number of forces are in place pushing development of technology and economy forward, and politics as well. It is one of the amazing and – in the end – sad stories, obviously: in many respects the development of the world is no longer much influenced by human projects. Rather, it is more and more influenced by subjective goals, very much independent, general ideas where to go, but determined by very narrow aims related to economy and personal wealth – and by a wild progress of science and technology. We measure what we call the »progress« of our society by numbers, by statistics. However, those numbers are often not justified by any human project. And if we study statistics that reflect what is happening in the »Green«, you see a lot of disturbing developments. But, obviously often pretending that they would like to change that, the individual political and economic leaders in the different parts of our society always find reasons and explanations why not following lines of development which are sustainable, but rather narrow goals, often individual and determined by personal welfare and individual success.

Of course, one of the difficulties here is that in the world there might be a number of different human projects and human social projects. Obviously, Luciano Floridi believes in a number of values that should be reflected in human projects on an international level including European ethical principles, but it is not clear to what extent human projects have to follow European ethical principles – as they have been developed by ethics of European culture. This brings in a very serious problem: digitalization is a big part of globalization and globalization brings together quite a [87] number of different societies and cultures much closer on a worldwide scale. Societies, which had or have their own ethical principles and their own human projects, which – to a large extent – were quite incompatible. Therefore, there does not and cannot exist a worldwide global human project. Before globalization and the close interchange of cultures and views

by the internet, the differences in cultures around the world could coexist, since there was no direct interchange as long as they were not affected by imperialism and colonization. This situation has changed dramatically. Different human and political projects are in a direct opposition leading to clashes. This explains the large number of conflicts we see. And is, what China is doing, not a kind of human (?) project – of course, based on quite different ethics and philosophy than what we find it in Europe?

But, although so far there is no human project – at least in Europe, there is a technical project, the digital. It has begun with small steps like first computing machines, later electronic data processing, embedded systems and software switched telecommunication networks, then personal computing. However, more significant, the internet is a technical entity that connects and integrates the whole world within one technical context under the internet protocol and the World Wide Web. However, we now observe that certain countries develop their own understanding of how they handle and restrict the access to the internet. We are getting closer to a situation where we have the global internet built up by a number of local internets. Still, the internet is an example for a global technical project, side by side with a large number of only partially defined local human projects, at least, human projects of the past, which get more and more lost in the tsunami of technical development of the digital. A typical example are the incredible changes in the Chinese society over the last 30 years.

4. From Things to Relationships

A key idea in the essay by Luciano Floridi is what he calls a transition from things to relationships in the structures of society. It is obvious that in the past, 200 years ago and more, the structure of societies was – to a large extent – formed by geography. At these times, the geographic location of people together with their position in their society determined their role in the social structure. In the past, most people had not so many different roles. Of course, they were members of their families and had jobs to do, were part of communities, but all these roles were arranged around their geographic situation. For an ancient farmer, his profession in his farm, his role as a father, and him being a part of community were quite coherent.

Here, I think, is more to say beyond the essay of Luciano Floridi, how this has changed. Today people have various roles: in their families, in their jobs, in their neighborhoods, in their hobbies, but they also have roles in the digital. Apart from social networks, they exchange messages and opinions with people far away. In addition, the intensity of contacts is no longer determined by geographic distance, but by subjective interests. Moreover, even far distances can be overcome by digital [88] interaction and communication. This is an essential part of the digital society. One result is – as Prof. Ursula Münch, Director of the Academy for Political Education in Starnberg, explains – that geographical neighborhood is replaced by digital contact and things people have in common govern digital content. This leads to a relational society, formed by networks that overlay the structure of nations and geographical neighborhood and result in an enormous accelerator of ideas and ideologies. If you only communicate with people who have similar ideas like yourself and if you can close a contact as soon as the contact seems to develop different uncomfortable views, then our society ends up with a complicated network of quite unconnected subnetworks of people of joint ideas about society and politics quite independent of geographical limitations.

This underlines once more the idea that things are replaced by relationships. But this is just one aspect. Bits become more important than atoms and this makes a lot of difference. Social relations tend to be intertwined and continuous with varying degrees of intensity. This has to be understood by politics, if looking for a new human project. The social fabric of today is woven – to a large degree – out of the digital. Politics must know how to deal with the intertemporal nature of people's lives and the intrinsic relationships and connections between the phases of human existence, as Luciano Floridi expresses.

5. Future Driven by Technology

However, there is something, which is very relevant but only briefly touched by Luciano Floridi: we are in the middle of a revolution that is different to many other revolutions we have seen over the centuries. This one is not driven by some social or political ideology or by a human project. Instead, it is a result of a technology running wild accelerated by technical innovations with exponential increase of

power. This is supported and exploited by a liberal capitalism counting on everyone who is entrepreneurially successful. If only he/she has the right ideas and the capability to put them into reality, it does not matter whether these ideas are good or bad for society in the long run. As a result, we see today a couple of people who became super rich in a very short time, and being super rich, they are able to get a lot of influence on people, society, and their development. Their only legitimation is just that they made it.

Last year, when I visited the Bay area, one of the protagonists of Silicon Valley, a very successful investor and entrepreneur formulated that as follows: »Europe is in endless discussions, but we are creating the future.« From a technological perspective and in fact, looking at the development of the last 30–40 years, this seems to be true. We live in a world, where (digital) technology determines more than ever our everyday live.

As I already pointed out, the human project means to define goals that are – at a first glance – independent of the question, how reachable these goals are. With some ethical and moral beliefs, one could think about »human« projects. Or maybe it would sometimes be more precise to talk rather about »inhuman« projects in all [89] the cases where projects do not respect human rights and the idea to achieve a higher degree of trust, coordination, and collaboration. I would have liked to read more about the question how to relate the human project with general values and ethical principles of the European worldview including human dignity, democracy, equal rights, and peace, which is different to »The Green«, so important »The Green« is and how it fits to »The Blue« – the digital.

6. The Winners Take It All

Another missing aspect is the specific role of the digital looking at all the digitally enforced and enabled changes, not only in terms of economy, military power, political power, and infrastructure. In which way does the digital introduce options, opportunities and possibilities for humans whatever they want to do with different ideas, with more efficiency and better effects, and, in addition, to end into possibilities people never thought of? This is essential: things, people never thought of such that, for instance, someone from the Bahamas can send a message to someone in Europe within milliseconds and get into

a relationship with such a person, just knowing about the person from some information found on some web pages, brings in a quite different quality. Or, even more revolutionary, the worldwide web with all its information, services, and contacts, at the finger tip of the billions.

Hyperscalers like Google or Facebook, which control billions of personal data of people are able to analyze these data and to program the reactions to input and activities to those people in order to exploiting these data. This brings in a completely new, but in some respect bad quality. What can be done? Everyday people lose a piece of their privacy and – if you look to China – these possibilities are used there in a large scale to support some kind of dictatorship which is able to collect data about all people and to control people according to these data by techniques of social scoring.

I would have liked to see more in Floridi's text about the fact that Europe as the original source of rationalism, democracy and human rights is about to lose a battle against the giants from North America and China and is about to become a digital colony and in turn also a cultural and economic colony, in general.

7. Making Digital Technology Beneficial

Why do we allow that this powerful digital technology is mainly used to make digital industry more efficient and effective, used for companies' prosperity? Why it is mainly used for creating new companies that earn their living in a completely different style by taking care of the data, of the users and offering highly attractive services? These companies do not sell anything, but manage to earn a lot of money and power through the services they offer, the data they get, exploit, and exchange that way. [90]

At the same time, China is catching up. In some respect, it is even overtaking digital companies in the US following also the idea of global business success. However, always combined with benefits for the Chinese government in their intentions to control their people, manipulate them and to force them to fit into their plans to become the super IT-power of the world. »China first« is as stupid and frightening as »America first«, but even more likely to be highly successful.

Therefore, a key question I would like to ask a philosopher like Luciano Floridi, is the following. What are the arguments for combining the power of digitalization with the beauty of new inno-

vative variations of the European worldview, such that they bring prosperity not to the few but to the many? Further, such that they support completely new aspects of life including art and culture as aims of a human project, which is enabled by and at the same time drives the digital? Probably »digital« is not the right term here; in contrast, digital here stands for deep logical insights into the nature of digital technology.

The quintessence of essays like the one of Luciano Floridi is that his call for good politics needs good politicians. In a digital age, good politicians should be politicians who understand digital technology deep enough to make good decisions, find good plans and strategies related to a well-chosen human project. In addition, it needs honesty, so that we can trust politicians. The politicians need to have the maturity and capability to steer a process that leads to a governance of the digital paving the way into a positive information society.

Nevertheless, it seems quite clear how a human project for a mature information society could look like: digital technology is such a powerful instrument. There are so many options to use it. We could improve our educational systems, our infrastructure, the efficiency and economy of our society. It could help to get deeper understanding, make many people get rid of dull labor and help them to get insights and access to culture and its potential to create a much more democratic society – if we do not leave the digital to the economic rampage of the hyperscalers.

However, looking at what happened during the last 30 years, it would be a wonder if this will actually happen. The internet as it was invented by DARPA in the 70ies; the worldwide web was added at the end of the 80ies. Both provide a worldwide platform that is much too anarchic to be able to support obvious ethical principles. This is related to what Luciano Floridi calls the ethics of infrastructure or »infraethics« for short. Here, I completely agree. If we introduce something as powerful as the internet, the way the internet is build, its rules and processes determine largely how it can be used and what are the ethical beliefs that are supported by it. Don't we have to ask for the infraethics of the internet?

Luciano Floridi is right when he complains about the absence of a human project in our information society – also in Europe. In fact, we do not have a human project for the digital age. What we have: a post-modern starting point consisting of an incomplete meta-project by the industrial and post-industrial consumer society

and neo-capitalistic system on the one hand, and on the other hand by dictatorships like China where the motivation of both sides is the same, getting rich and getting powerful, but not caring for a human project. This meta-project is clearly neoliberal in North America, but in the sense of economic liberalism which promotes a maximum reduction for the function of the state in favor of the freedom and the responsibility of the individual. This brings the risk that – what we already see today – powerful companies like the hyperscalers start to take over certain tasks of the government and bring in their own governance. The other side of the coin is what we see in China where the digital is used to come up with a hyper-controlled society.

So, we end up with giant risks: first, community activism detaching itself from a human project not really existing, second and third, the double illusion that community activism can somehow compensate for the absence of a social human project and that community activism is confused with a social human project and tries to replace it. These are all dangers, which are seen and clearly formulated by Luciano Floridi, too.

8. Understanding the Digital

Luciano Floridi introduces the term of infraethics in his essay. Infraethics addresses the important aspect that you cannot bring in new infrastructure or a new technology like search engines or social networks or any digital services without implicit or explicit bias towards a particular ethical and moral point of view. This can be hidden and very implicit, in the worst case not understood even by the designers, or it can be very explicit, completely understood by the designers with well-targeting effects, but depending on their – perhaps missing – social responsibility and their overall goals which usually are not derived from a human project. This is something, which has to be understood very deeply by politics, because good politics can only become true, if this concept of infraethics is understood.

We have spent the last 50 or 60 years in developing a very powerful technology. This is the digital technology with its networks, with cyber-physical systems, autonomous and automated processes, the ability to store and analyze huge sets of data (such that it is possible to analyze them in a lot of different aspects creating knowledge), and to provide humans with a powerful weapon for all kind of cognitive

work. But although there were some discussions, nothing has happened to think about how this huge and powerful technology we have built out of the digital has its own »infraethics« which determines the way it is used and changes the views onto the world's social or economic structures, political power, and much more. We have worked always on improving the instruments without clear ideas how those instruments change our world and society and, in the end, us.

Finally, Luciano Floridi gives 69 numbered points of thoughts. Many of them are interesting, but actually not talking about the »Green« and the »Blue«. He rather talks about general ideas about good politics and about how to act in a reasonable political space supporting the social human project. Only a few relationships to the digital are mentioned, for example, in the phrases »politics is cybernetics« or »democratic politics is binary«. Many of these phrases seem not directly related to the information society, but rather relevant for a post-industrial society addressing information issues, in particular. This is why I do not want to comment on them. This would need more time and space. [92]

9. The Age of Design

Finally, I just want to express that I completely agree with Luciano Floridi's point of view that our age is an age of design, even more than an age of discoveries or inventions. The design of a search engine for the internet or of a smartphone and understanding its economic effects is rather not an invention and different from the discovery of a new continent or the invention of a gas-driven engine. When politicians talk about infrastructure nowadays, they often have to deal not so much with bits and atoms, but rather with infraethics and the values it implicitly reinforces. This is, in particular, true for digital infrastructure, which even becomes more decisive in times of a pandemic disease.

10. On the Interplay between the Green and the Blue

I think the relationship of good politics to the »Green« and the »Blue« has to be understood much deeper. The »Blue« substantially changes the balance of power. The »Green« needs a well-balanced power

of good politics such that we get a chance that our world is not disappearing in a cloud of climate change and waste.

Although Luciano Floridi expressed in an e-mail exchange with myself that he has written a lot about details of the digital elsewhere, I would have liked to see more here about the digital in relationship to the »Green«. The questions are to what extent is good politics today possible without deep understanding of the digital, to what extent has a human project a clear interface to the digital, and how we can achieve that? In a world like ours, we see that developed regions like North America, Europe, and Asia, in particular, China, follow completely different approaches to the digital.

11. China, the US and Europe

China in its politics is aware of the digital and uses it comprehensively to increase its power and its influence, not only in his own country, but in many respects all over the world. China has a kind of imperialistic non-human project using the digital as a platform for establishing political power and for being able to completely control society.

In North America, the relationship between the large hyperscalers and politics is much more complicated. There, lobbies are involved which make sure that politics does not disturb the incredible economic development of the hyperscalers, and there is a kind of specific philosophy in Silicon Valley where people say that they create the future, but without knowing or not even thinking about a human project, and without much ethical considerations. All that counts is economic power and success on an international scale – a kind of dogged sportive competition.

And there is Europe, finally, with its politicians too unaware, too ignorant, too naive, and too undetermined about the digital, too weak and too anxious to come up [93] with clear ideas about a human project and about measurements to relate it to the digital and to make it become true. They do not dare to do anything against a development, which is driven largely by North America and China. They are sometimes breathlessly looking at what is going on, have no clue what they could do, and miss their possibilities to come up with their own ideas about a digital future, about digital sovereignty, and about a kind of digital society closely related to ethical principles as they were developed, over ages, by Europeans.

Here it is, certainly, the role of philosophy to further develop European ethics and culture bringing it together with the power of the digital. This may be the only hope we can have for the future according to our values. People like Luciano Floridi are playing an important role in this. Being an age of design, the key challenge is not just technical or digital design and innovation, but design of human projects exploiting the digital and, not to forget, addressing the »Green«.

12. What is »good« politics for the Green and the Blue?

Obviously, it seems much too simple just to call for »good« politics.

If too many different ideas exist what »good« politics are, very much based on philosophical and ethical, political and economic principles and social ideas – in particular, on a world wide scale.

However, there is a very important fact that is not discussed enough. If you look at the »Blue« and the »Green«, the specific impact of these factors, the responsibility of politics is quite different. Let us have a very global look at that: the »Blue«, digital technology, is a really incredible, breathtaking development in technology that opens up possibilities people did not even think about only a few decades ago. What has happened with the introduction of global networks or edge technologies such as smartphones? Everywhere and every time you see creation of a digital world full of information and services beyond our imagination. The problem here is not to fight against digital technology, the problem is to find a way to exploit digital technology in good human projects to make sure that this technology is used for the benefit of mankind. Therefore, creative energy, deep technological and scientific insights are needed as well as a kind of a strategy for a good information society.

Looking at the »Green«, the situation is quite different: fighting against the climate change, keeping the ecological balance for the world can hardly so simply be combined with a human project that takes us to a great future. What has to be done here is much more defensive: we have to defend our world; we have to defend our climate. Of course, this is also an economical problem, but it is much less a problem of ideology. It is a rather narrow, but gigantic problem preventing that we destroy the livelihood for the human race and for billions of animals. Although, there might be some ideas about a green

future for our planet, we can imagine lots of different societies and political systems, which guarantee the survival of our planet.

As a result, the »Green« and the »Blue« need quite different approaches in politics. Of course, there are interesting relationships between both of them. In the past, the ecological footprint of the »Blue« was not so significant. This has changed and is [94] about to change even more: downloading movies over the internet and, for instance the training of machine learning systems is about to use a lot of energy, and so far, there is not much to prevent that. Since a few years ago, it has become obvious that high-performance computing will not come to an end, because of the high prices of the computing machinery, but with respect to the high prices of the energy required to do such computations. The energy costs are higher than the costs to buy new hardware.

On the other hand – used in a consequent way – the »Blue« can contribute a lot to the »Green«. We only have to think back to the old days where Donella and Dennis Meadows published »Limiting growth to save the world«, at that time computation power was rather weak although computational system models played an important role. With the computing power of today, we could do much more on the one hand to simulate and predict developments and on the other hand, to control many aspects of ecology as it is done already in models to investigate the climate change.

However, as a bottom line we need completely different steps in what is called »good« politics to take advantage of this unbelievable digital technology on the one hand and to stop and to reverse what is going on in our world accelerating the climate change and destroying the ecological values of our planet.

13. Other Colors

It is not enough, not even, strictly speaking, possible to talk about the »Green« and the »Blue« in isolation. Both have one thing in common: they are in a deep interdependency with nearly all other »colors«, all other application areas. However, their effects are quite different: the »Green« is determined by the way applications are handled, how far they are climate aware, while the »Blue« determines more and more how applications are handled in new innovative ways. This is a big difference. The Green is influenced by the way things are

done; the Blue influences the way things are done. Good politics has to understand how to use the Blue to improve the Green.

But there is more: at least so far, right or wrong, the Green does not show a lot of impact on the decisions of politics, at least, it does not seem to directly affect human rights or democracy! This is much different for the Blue. Hyperscalers become more and more powerful and in many ways are taking over governance in areas that so far were ruled by the governments. A very interesting example are the decisions of Twitter and Facebook to lock down Donald Trump's account. Although, this seems an overdue step, it nevertheless leads to the serious question, whether this is a decision that is to be taken by private companies. This shows why the Blue is very different from the Green.

Being Human in the Digital Age: Comments on Floridi's sketch for a New Political Ontology

Floridi's lead article for this exchange is too rich in novel ideas to be exhausted by one set of comments, not to mention his overall impressive contribution to the philosophy, ethics, and logics of information on which it draws.¹ In what follows, I will focus on two dimensions of his proposal for what he calls a »New Political Ontology« (Floridi 2020). First (I.) I will discuss his (social) ontology. Then (II.) I shall sketch an alternative to his »postmodern meta-project« (321). This alternative, which is part of the overall philosophical research program of »New Realism«, maintains that we ought to reclaim the concept of being human as the relevant ontological interface between politics and ethics. Despite his recourse to the very idea of a »human project for the digital age«, Floridi seems to be ensnared by a certain postmodern and posthumanist siren song that is a constitutive part of the problem Floridi wants to overcome.

My comments are meant as an invitation to dialogue rather than as critical objections that might be expected in a »controversy«. For, controversies in my view are alien to philosophy itself. They belong to the preferred modes of confrontation of our digital age insofar as the widespread commercial use of digital infrastructure (including, but not limited to AI-systems as the most powerful tools available) tends to restructure the public sphere in terms of easily digestible forms of polarization. Philosophy's task in the face of our situation of »nested crises« is to cooperate in order to create better, more forward-looking conceptual avenues than those characteristic of our current »management of the attention of the civil society«, which draw on »alarmism, emergency, or recurrent crises« (330).² Having said that, I will focus on the aspects of Floridi's article with which I find

¹ Cf. Floridi (2011), (2013) and (2019).

² Cf. Gabriel (2020a) and (2020b).

myself in some sort of disagreement. This disagreement takes place against the backdrop of a vast background of agreement. [96]

1. Floridi's (Social) Ontology

Floridi claims that there is something like »our *Ur-philosophy*« (311). In the context of political ontology, this *Ur-philosophy* which he associates with the names of Aristotle and Newton »conceives of society as lego-like in structure. There are many units of bricks that connect to other units of bricks, from the bottom to the top, to create complex structures, interacting with each other.« (311) Elsewhere, in a similar spirit, I have called this *Ur-philosophy* »legocentrism«, a worldview which is indeed out of touch with much contemporary scientific activity (not limited to the natural sciences).³ In this regard, I want to emphasize the proximity of Floridi's rejection of an ontology based on naïve set theory and my introduction of the notion of »fields of sense.«⁴ Fields of sense are intensional structures. They are domains of objects individuated by Fregean-style modes of presentation that structure objects in a given field. To exist, according to the underlying ontology, is to appear in a given field of sense, such that existence itself turns out to be a relation between a field and the objects located therein. Otherwise put, the ontology of fields of sense belongs to the species of »relational *Ur-philosophy*« (313). As a matter of fact, there are some points of contact between this ontology and the »sophisticated mathematical tools« Floridi mentions (he draws on vector spaces in relativity theory and category theory as foundational theory in mathematics).

Surprisingly, Floridi does not consider those examples of contemporary French (social) ontology that depart from Aristotelian *Ur-philosophy* in just the ways suggested by Floridi himself. For instance, Badiou maintains that on his preferred interpretation of set theory and category theory, it is possible to provide an ontological foundation of Althusserian political ontology – a tradition of Marxist thought for which Floridi ought to have some sympathies.⁵ What is more, Bruno Latour has spelled out a relational ontology of modes

³ Gabriel (2017).

⁴ Gabriel (2015a), 13.

⁵ Badiou (2007) and (2019).

of existence based on his actor-network-theory, which transcends legocentrism and replaces it with a sophisticated ontology based on sociological evidence.⁶ Latour (like many other contemporary sociologists from different schools, such as the hermeneutic tradition, the Frankfurt school or that of system theory, to name but a few) would certainly subscribe to Floridi's insight that »economics, jurisprudence, sociology, and above all, in our case, politics, become relational sciences of the links that make up and connect the *relata* (not just people, but all things, natural and constructed, and therefore their environments and ecosystems), even before being behavioral sciences studying the nature and actions of those special entities« (316).

Regardless of this somewhat astonishing absence of references to already existing relational contemporary social and political ontologies, I have a series of objections against the idea of grounding a transformation in (social and political) ontology on an analogy with mathematics and natural science. For, the objects of (social [97] and political) science cannot be meaningfully modelled in terms of natural science. There is no social vector space and category theory is not capable of getting the kind of qualitative experience into view that is constitutive of »the participant standpoint«⁷, to invoke Strawson's felicitous formulation.

The most obvious disanalogy between the ontology of the kinds of objects that can be dealt with in terms of strictly mathematical and natural-scientific methods and those that are in the target systems of the human and social sciences is that social objects and facts exist in virtue of their relationship to concept-mongering creatures like us. We produce social facts on account of our capacity to think of each other's experience and to adjust our attitudes to the attitudes of various communities of which we happen to be members.⁸ The »force field or relational *network*« (316) of social entities essentially exists in virtue of implicit and explicit attitude adjustments grounded in the fact that we are socially produced and constantly reproduced animals.

Exactly like Latour's, Floridi's »new model, placing the relations at the centre of the socio-political debate, is more easily able to include

⁶ Latour (2013).

⁷ Cf. Strawson (1962) and the elaboration of the relationship between a hermeneutically accessible life-world and social relations in Habermas (1984, 1987) which owes much to this Strawsonian account.

⁸ Gabriel (2020a), §§ 12–17.

in its analysis *all* the entities (relata), not only persons, but also the world of institutions, artefacts, and nature« (316).⁹ However, there is one crucial difference, which comes out at a deeper philosophical level: Floridi refrains from claiming that the actual ontology of social and political entities is relational. Instead, he presents us with »an epistemological ontology«, »not a metaphysics«, i.e. with »a way of describing the world at a relational, instead of substantial, level of abstraction« (315, fn. 7).

Yet, this motivates my first more critical comment: How does Floridi account for the presumed fact that a »*reticular philosophy*« (316) is superior to an »Aristotelian Ur-philosophy« if all he is saying is that we can devise a vocabulary in which »[a]ll entities are reducible to bundles of properties, and all properties are reducible to n-ary relations, so all entities are reducible to the totality of bundles of relations« (315, fn. 7)? To be sure, it is possible to devise many vocabularies whose logical properties we can fix in an axiomatic way so as to study their intrinsic inferential properties. But what does it mean to claim that Thatcherian social ontology »was wrong« (315) then? If there is a right and a wrong level of abstraction, in what does the rightness consist? It cannot be reduced to »a way of describing the world«, as there are indefinitely many such ways of describing the world. There has to be some set of criteria that help us to decide which of the available modes of description better capture how things really are. At this point, it cuts no ice to assert that the »*relational Ur-philosophy*« imposes »a paradigm shift« and that it »untested, counter-intuitive, unfamiliar, it is not how we conceptualise the world and our societies in it, or how we go about designing and constructing them, and does not really seem to be forced upon us by the nature of the problems with which we are dealing. It is going to be a hard selling« (314). [98]

For one thing, the relational picture Floridi sketches is not really new. It has been a standing possibility throughout the entire history of philosophy, in both the ›West‹ and the ›East‹. It suffices to mention Hegel's discussion of relations in the Doctrine of Essence, as a famous paradigm for 19th century social ontology and sociology, which Floridi

⁹ Cf. Latour (2004).

only mentions in passing (316), and the various versions of holistic, relational ontologies in Buddhist metaphysics.¹⁰

Floridi compares the motivation for adapting a reticular philosophy to the transition from Newtonian, classical physics to quantum physics. »The point is not that Newtonian physics does not work, but that it no longer works in this case, and that this case is now the more fundamental one.« (315) If this point is meant to be understood at face value, I disagree. For, Newtonian physics does not work precisely because it cannot cover the behavior of subatomic particles. On some scales, it is a useful approximation to the physical facts, but it simply does not cut nature at its joints in all relevant domains, which is why it has been superseded by much better theories, theories whose superiority is both experimentally tested and impressively coherent on the theoretical level.

Regardless of the details of the philosophy of paradigm shifts in physics, the comparison between legocentrism in social ontology and Newtonian physics is misleading to the extent to which social entities ought not, on any respectable construal, to be regarded as points subject to laws of nature – an idea that has been constantly rejected since sociology became an academic discipline.¹¹ Sociologists have not been operating with the ›Newtonian‹ paradigm, Floridi rightly criticizes. And to the extent to which a legocentric view of the social is actually based on a ›Newtonian‹ (or, for that matter, ›Aristotelian‹) paradigm, the corrective is not to base a new ontology of society on a post-newtonian scientific paradigm derived from physics. Rejecting atomism in social ontology and replacing it with holistic ways of thinking about social facts and entities as essentially integrated into networks of mutual recognition, is certainly not an innovation triggered by »new challenges posed by mature information societies, where well-being is higher and more widespread than in the past (and compared with other developing societies), and the degree of complexity and interconnections is now profound« (315).

In this context, I believe that Floridi's repeated claim that our »Aristotelian-Newtonian Ur-philosophy is so powerful because it is the codification of our deepest intuitions as intelligent mam-

¹⁰ For a recent, logically sophisticated reconstruction of Buddhist metaphysics in terms of contemporary logical and ontological theory see Priest (2014) and (2018). See also the discussion in Gabriel/Priest (forthcoming).

¹¹ See famously the papers collected in Weber (2012).

mals« (313) is wrong. At least, in his article he does not offer any evidence or arguments in favor of the idea that a specific metaphysics is indeed constitutive of common sense or our cognitive architecture as members of a species of intelligent mammals. An atomistic social ontology is certainly nothing natural in that sense. If anything, it is the result of a lot of metaphysical theorizing (it might deserve the title ›Aristotelian‹, after all). And if you look back at the founding gesture of political philosophy and ontology, you will notice that Plato, in con[99]trast to Aristotle, defended a reticular philosophy. For Plato, being is a »network of ideas (συμπλοκή τῶν εἰδῶν)« where each element is what is in virtue of occupying a position of identity and difference to other members in the network of being.¹² One could even go so far as to maintain that the very idea of Plato's political philosophy which, if anything, is *the* political Ur-philosophy, is based on a rejection of legocentrism.

This brief historical remark is only intended to show that there is nothing natural, common-sensical or deep about an atomistic conception of political ontology according to which »there is no such thing as society«. Of course, Thatcher was wrong, but she was not, after all, even in the business of stating anything faintly resembling a political ontology. Nor did she voice a somewhat natural, common-sensical account of how things really are. Rather, her version of a neo-liberal project has a precise and unfortunate historical place, one which has arguably been leading to a series of social and political disasters for which we urgently need an alternative. In this respect, I wholeheartedly endorse Floridi's overall strategic thrust towards a green and blue information society. In particular, I believe he is right that »not even a society of angels can succeed if it is exclusively a libertarian one. It too needs a social project to support its development.« (325) But the very formulation of this basic and crucial enlightenment insight demonstrates that there is nothing natural about a legocentric Ur-philosophy. Rather, it is a confused expression of bad theorizing whose shortcomings, in my view, are precisely not merely epistemological, but ontological or metaphysical, if you like.¹³

¹² Plato, *Sophist*, 259e5–6 (in Cooper 1997).

¹³ In my own work, I distinguish between ontology and metaphysics in roughly the following way: While *ontology* is the systematic investigation into (the meaning of) existence and related concepts (such as identity, difference, relation, field, object, substance etc.), *metaphysics* is a theory of absolutely everything, of unrestricted

2. Being Human in the Digital Age

In this section I would like to discuss Floridi's important statement that »we do not have a human project for the digital age« (320). He rightly identifies the Achilles heel of the current state of globalization. Arguably, the current pandemic has made it explicit and visible to billions of people that the libertarian, neo-liberal understanding of global markets does not per se amount to anything like a sustainable »vision of the good«¹⁴. In this context, I have argued for a »politics of the radical center« which I take to correspond to Floridi's »ethical-centric way« (322) of designing a human project for the digital age.¹⁵ And for that, »we need an important thing: a good ethical infrastructure that allows coordination and care of the social fabric« [100] (323). In particular, it seems to me that Floridi is offering an argument in favor of this specifically political proposal, which he formulates in the following passage:

[T]he very absence of a human project is *itself* a project. We are back to the relational nature of phenomena that absorb their negations. Not having a project does not mean you are doing without one, but rather that you have opted for a bad project, underdeveloped and uncontrolled. It follows that a society without a human project does not exist. There are only societies with human projects that are more or less good, achievable, or compatible with one another. (319)

This implies that there is a ranking of human projects. It would be interesting to hear more about Floridi's scale for ordering more specific projects so as to evaluate his own proposal in comparison to actual and possible alternatives. Clearly, he rejects libertarianism and its associated, atomistic social and political ontology. In this context, I would like to know whether libertarianism and the absence of a human project coincide or whether these are two different kinds of mistake.

totality. For reasons not articulated here, I believe that metaphysics is devoid of relevant content, because there is no unrestricted totality whose architecture we could reconstruct by way of some combination of scientific, empirical knowledge-acquisition and philosophical a priori reasoning. For details see Gabriel (2015a) and the introduction to the view in Gabriel (2015b).

¹⁴ This is Brian Leiter's apt phrase for a socio-political vision of »what is worthwhile or important« such that particular socio-political decisions are taken in light of such a vision. See Leiter (2014), 118.

¹⁵ Gabriel (2020b).

Moreover, I was struck by Floridi's largely unsupported claim that the human project for the digital age »will need to be secular and lay« (323). The only reason he gives for this very contentious claim is that »ethics can unite and support faith, but faith often ends up dividing and defeating ethics« (323).¹⁶ He seems to ground this view in the idea that there is a »religious divide« »comprising »we« and »they«« (323). Yet, an elementary dialectical move gets us to the position that the opposition of ethics and faith or of secular and religious is precisely a repetition of an opposition of »we« and »they,« a serious shortcoming which is widespread in circles which rely on the notion that there could be such a thing as a purely scientific worldview. Floridi's opposition of ethics and faith thus threatens »to fall into the temptation of *imposing* a specific vision (religious or otherwise) of the human project at the expense of other visions« (322 f.). I wonder why Floridi does not extend his dialectical operation (political abstention is itself a political act etc.) to his own decisions? This would reveal that the strict separation between the religious and the secular as well as his idea that politics and ideology can neatly be separated so that his own centrism cannot count as ideological, is subject to a dialectical operation: Opposing the (alleged) we-they-distinction of a religious divide creates a divide between the we of a secular group and the they of an (alleged) religious group; the claim that centrist politics is free from ideology is itself a form of ideology etc. [101]

Clearly Floridi's project significantly reduces the »pluralism« of human projects to a subset of ethically superior human projects. Yet, if this ranking significantly draws on an opposition of secular and

¹⁶ See also the argument in Floridi (2020), 322: »As for the relationship with religion, the human project must support a secular and immanent society, while being fully respectful of the faiths that can not only cohabit but also flourish within it. The reasons in favour of a lay human project are many. Only a secular society can be coherent with the meta-project, which, to repeat, is a project to facilitate individual projects to the extent that they are mutually compatible. Only a secular society can be truly tolerant, that is, sincerely respectful and supportive of the great variety of individual human projects.« I believe that this series of statements is incorrect and based on a parochial historical perspective on tolerance. See, for instance, Amartya Sen's reminder that pluralistic tolerance of all religious (and atheistic) outlooks in India's Moghul Empire blossomed during Akbar's rule in the 16th century in Sen (2009), 36–39 as well as in Sen (2005). In any event, Floridi's very contentious statement concerning secular society is in urgent need of historical and philosophical justification. As formulated, it is a mere allegation.

religious projects, it winds up with an extreme polarization of current humanity, the majority of which adheres to some faith or other. This is particularly true of what Floridi calls »the silent world«: »the marginalized, the disadvantaged, the weak, the oppressed« (322), such as Muslim migrants in French suburbs, the small Hindu minority in Germany (which is marginalized, if not oppressed), Polish Catholic migrant workers in Britain soon to be removed from their anyhow precarious social positions in the UK in the wake of the highly uncontrolled human »project« of a hard Brexit etc.

Notice that I am not arguing in favor of a religious human project at all. I am just pointing out that the opposition of ethics and faith is misguided on various levels, most specifically in light of Floridi's own dialectical idea that ethics has to be maximally inclusive or, as I would like to put it, of universal scope. Thus, in my view, the defining feature of a human project for the digital age is a form of universalism which I recently labelled »New Enlightenment«¹⁷. New Enlightenment's starting point is a brand of moral realism according to which ethics (the discipline) is in the business of discovering moral facts. Moral facts are facts concerning what we ought to do or ought not to do simply in virtue of our shared humanity.¹⁸ We can express moral facts in the usual form of assertions of which we know many paradigmatic instances such as: »No one should torture children«, »We ought to include the silenced voices of the marginalized in democratic processes«, »Gender equality is an important development goal« etc. Call these paradigmatic instances or correct moral statements »self-evident«. The idea is not that all moral facts are self-evident or somehow easy to detect. One of the reasons why this is not the case is precisely natural-scientific, technological and social progress which puts us in unexpected situations whose moral structure we have to figure out. According to my brand of moral realism, the heuristics for the discovery of moral facts hitherto partially obscured or unarticulated has to be based on a model of trans-disciplinary cooperation. We need to settle as many non-moral facts about emerging, socially disruptive technologies as possible before we can evaluate those facts in light of earlier ethical achievements. This immediately amounts to a human project in Floridi's sense, because

¹⁷ Gabriel (2020b).

¹⁸ For a recent brilliant account of the relationship between the universal scope of moral thought and the rationality of the human life form see Korsgaard (2018).

the goal of a global society in the information age can be defined as the creation of maximal-scale cooperation across disciplines and sectors of society. Thus, all scientific disciplines (including the humanities and qualitative social sciences) ought to cooperate in the face of the various challenges and threats humanity faces in the 21st century with the explicit goal of identifying a morally good course of action and organization whose moral value by its very nature transcends national boundaries.

At this point, the humanities come into play. Within the framework of New Enlightenment, they contribute transcultural knowledge so as to dispel stereotypical [102] thinking according to which there is, for instance, such a thing as »European values« that contrast with »Chinese« or even »Asian ones«. In this context, my strongest disagreement with Floridi's project comes to the fore. For I believe that his notion of Europe and that of the EU is highly problematic, to say the least. Let me illustrate my worry that there is a strong strand of something one might even call Eurocentric thinking in the following passage to which I emphatically object¹⁹:

[T]he Mediterranean nature of Italy is above all cultural (i.e. relational), not merely geographical; likewise, Denmark is a Scandinavian country; and Spain can be as Mediterranean as Greece. This is why the EU should allow the expulsion of European member countries that do not respect agreements and shared values, and drop the geographical clause that prevents a non-European State from joining the European Union. More Europe also means having the courage to abandon the twentieth-century geographical space, on which the EU was founded, to adopt a relational spatiality, making possible the exclusion of European countries that repeatedly deny the values of the EU, because geography is no longer sufficient, and the inclusion among its members also of countries not belonging to the continent, but which respect and promote its values, because geography is no longer necessary. (317)

There just is no such thing as the values of the EU such that we could identify them in a way which would allow for the exclusion of Poland,

¹⁹ My rejection of the very idea that there are cultures which can be attached to nation states is inspired by Appiah (2018) and Sen (2006). Basically, I would argue that there really is no such thing at all as a »Mediterranean«, »Scandinavian« or »Japanese« culture. At best, these notions are abstractions based on stereotypes. In addition to serious ontological and explanatory shortcomings of stereotypes, they underpin the kinds of mechanism of exclusion which hinder moral progress by silencing those that seem not to belong in a culturalized category.

Hungary, or Italy from the EU. Let us not forget that almost any member of the EU has right-wing populist and other anti-EU parties and movements. Sometimes, like until recently in Italy, they actually form the government and repeatedly oppose political decisions taken in Brussels or in other member states, in particular, in morally sensitive areas (such as sustainability or migration). Yet, the very idea of excluding Italy from the EU and of replacing it, say, with Japan or Australia, is simply preposterous. Notably, such a proposal runs entirely counter to the idea that we should not create fractions of a »we« and a »they«. Thus, the quoted passage is incompatible with an ethically sustainable and acceptable human project for the digital age. Actually, it articulates stereotypes and biases that we should overcome in the name of a more desirable form of digital transformation, which is a central part of debates in ethics of AI and the regulation of algorithms.²⁰

In general, ethics cannot advance without taking the humanities into account. There is a deep reason for this fact which I articulate in roughly the following way.²¹ We can think of human mindedness as the capacity of leading a life in light of a conception of oneself as specifically minded. For instance, we can think of ourselves as intelligent mammals, as rational animals, as emergent patterns identical with neuronal processes, as endowed with an immortal soul or as involved in cycles of rebirth until we reach the final stage of salvation based on enlightenment. I call [103] each such conception of human mindedness a »self-portrait«. The humanities can be seen as investigations into synchronic and diachronic variations in the instantiation of this universally shared form of being human. To be human, then, is to actualize the capacity to think of oneself as belonging to reality in a particular way. While the capacity is universal, specific instances can vary from individual to individual, can change over life stages, or form clusters some of us then perceive as social, religious, or cultural identities. The massive variation in actual modes of being human takes place in front of a shared universal form. New Enlightenment sets out to discover details of the shared universal form so that it can be the driver of progress. In that respect, it is liberal without being postmodern. Floridi conflates the idea that the »purpose of the State is centred in defending and promoting the rights of each member of

²⁰ See, for instance, Richardson (2020), Arun (2020), Gal (2020) and Rizk (2020).

²¹ For details see Gabriel (2018) and (2020b).

society, in a mutually compatible way« (320) with a »postmodern meta-project«. But that is clearly a mistake, for the obvious reason that the liberal tradition is the hallmark of modernity, if anything. For instance, it would be absurd to classify Kant's legal and political philosophy as »postmodern«, while it is, of course, precisely liberal in Floridi's sense. In this respect, it is also false that the liberal project »focuses only on the interests and hopes of the individual, or at most of the person, including the legal person (think of corporate taxation), but does not provide, nor does it mean to provide, programmatically, an indicative framework on the kind of society one would like to build together, and for which coordination of the efforts of many, if not all, is needed« (320 f.).

Actually, this worry is even self-contradictory within Floridi's framework, because the idea of a coordination of individual modes of being human in light of our self-conception as instantiating the form of being human in highly specific, i.e. individual ways, is precisely a political idea that leads to large-scale cooperation needed to maintain the legal order of a democratic rule of law.

I want to conclude this discussion by highlighting that there are many items on Floridi's rather random list of 69 ideas with which I happen to agree. However, there also are many articles in this list I disagree with. I assume that this will be the case for virtually every reader. For this reason, it seems quite obvious to me that Floridi owes us a justification of the transition from some general concerns pertaining to a change in ontology from substance to relation to surprisingly concrete proposals and claims such as »6. *Democracy* is the best way to create and maintain the governance of a polity. « (328) While this happens to correspond to a very reasonable political opinion, I wonder how Floridi would convince representatives and defenders of the Chinese mode of government that he has actually offered an account that speaks in favor of liberal democracy rather than in favor of a contemporary Chinese form of governance for the digital age, which is clearly not democratic in the intended sense.

Overall, Floridi's article falls short of fulfilling the promise of demonstrating that there is a »best possible human social project« (333). And what does it mean to say that politics »is concerned with supporting and implementing the best possible human social project, in a critical and conscious way, that is compatible with the historical circumstances in which it arises, and the individual human projects of which it takes care« (333)? If this is a descriptive

assertion about what politics is [104] and does, we wind up with a chaotic bunch of mutually incompatible social projects without being in a position to rank them. If it is a normative claim concerning what politics ought to be, then Floridi has not yet offered his actual or possible political opponent sufficiently good reasons to endorse his project.

In sum, we, i.e. all humans currently inhabiting Planet Earth, urgently need an informed political global discussion about who we are as human beings and who we want to become in the future. This discussion ought to be constraint by ethics, i.e. by large-scale cooperative, transdisciplinary and transcultural systems of cooperation designed to figure out as many non-moral and moral facts as possible so as to translate them into manageable and realizable policies. This requires a shift in social and political ontology after the recent breakdown of a purely libertarian, neo-liberal understanding of the global order. The current pandemic crisis can thus be regarded as calling for a »great reset« requiring a paradigm shift towards reticular thinking.²²

Bibliography

- Appiah, K. A. (2018), *The Lies That Bind. Rethinking Identity*, New York/Oxford.
- Arun, C. (2020), »AI and the Global South. Designing for Other Worlds«, in: Dubber, M. D./Pasquale, F./Das, S. (eds), *The Oxford Handbook of Ethics of AI*, New York/Oxford, 589–606.
- Badiou, A. (2007), *Being and Event*, New York/London.
- (2019), *Logics of Worlds. Being and Event II*, London.
- Floridi, L. (2011), *The Philosophy of Information*, Oxford.
- (2013), *The Ethics of Information*, Oxford.
- (2019), *The Logic of Information*, Oxford.
- (2020), »The Green and the Blue. A New Political Ontology for a Mature Information Society«, in: *Philosophisches Jahrbuch* 127, 307–338.
- Gabriel, M. (2015a), *Fields of Sense. A New Realist Ontology*, Edinburgh.
- (2015b), *Why the World does not Exist*, Cambridge.

²² Cf. Schwab/Malleret (2020). Schwab and Malleret also point out that we urgently need a non-classic, quantum-like account of social complexity. Yet, this comparison suffers from the weakness that socio-economic relations do precisely not obtain between physical objects so that the analogy between a transition from a classical to a non-classical paradigm from physics is not entirely convincing. It might be sufficient to take actual, qualitative, theoretical sociology into account and build better quantitative models on the participant standpoint of social agents. This imperative corresponds to the ur-paradigm of sociology represented by Max Weber.

- (2017), *I am not a Brain. Philosophy of Mind for the 21st Century*, Cambridge.
- (2018), *Neo-Existentialism. How to Conceive of the Human Mind after Naturalism's Failure*, Cambridge.
- (2020a), *Fiktionen*, Berlin.
- (2020b), *Moralischer Fortschritt in dunklen Zeiten. Universale Werte für das 21. Jahrhundert*, Berlin.
- Gabriel, M./Priest, G. (forthcoming), *Everything and Nothing*, Cambridge.
- Gal, D. (2020), »Perspectives and Approaches in AI Ethics. East Asia«, in: Dubber, M. D./Pasquale, F./Das, S. (eds), *The Oxford Handbook of Ethics of AI*, New York/Oxford, 607–624.
- Habermas, J. (1984), *The Theory of Communicative Action. Vol I: Reason and the Rationalization of Society*, Boston.
- (1987), *The Theory of Communicative Action. Vol II: Lifeworld and System*, Boston.
- Korsgaard, C. M. (2018), *Fellow Creatures. Our Obligations to the Other Animals*, Oxford. [105]
- Latour, B. (2004), *Politics of Nature. How to Bring the Sciences into Democracy*, Cambridge, Mass.
- (2013), *An Inquiry into Modes of Existence. An Anthropology of the Moderns*, Cambridge, Mass.
- Leiter, B. (2014), *Why Tolerate Religion?*, Princeton/Oxford.
- Plato (1997), *Complete Works*, edited by J. M. Cooper, Indianapolis.
- Priest, G. (2014), *One. Being an Investigation into the Unity of Reality and of its Parts, including the Singular Object which is Nothingness*, Oxford.
- (2018), *The Fifth Corner of Four. An Essay on Buddhist Metaphysics and the Catuskoti*, Oxford.
- Richardson, K. (2020), »The Complexity of Otherness. Anthropological Contributions to Robots and AI«, in: Dubber, M. D./Pasquale, F./Das, S. (eds), *The Oxford Handbook of Ethics of AI*, New York/Oxford, 555–570.
- Rizk, N. (2020), »Artificial Intelligence and Inequality in the Middle East. The Political Economy of Inclusion«, in: Dubber, M. D./Pasquale, F./Das, S. (eds), *The Oxford Handbook of Ethics of AI*, New York/Oxford, 625–649.
- Schwab, K./Malleret, T. (2020), *COVID-19. The Great Reset*, Cologne/Geneva.
- Sen, A. (2005), *The Argumentative Indian. Writings on Indian History, Identity and Culture*, London.
- (2006), *Identity and Violence. The Illusion of Destiny*, Cambridge, Mass.
- (2009), *The Idea of Justice*, Cambridge, Mass.
- Strawson, P. F. (1962), »Freedom and Resentment«, in: *Proceedings of the British Academy* 48, 1–25.
- Weber, M. (2012), *Collected Methodological Writings*, New York/Oxford.

The information society: cause for a philosophical paradigm shift? A response to Luciano Floridi¹

1. The grand narrative of the mature information society

Luciano Floridi has presented a »grand narrative« with his essay »The Green and the Blue«. Beyond his internationally renowned work on ethical questions of digitalisation, and especially AI, he proclaims nothing less than the need for a paradigm shift in the philosophical foundations of the social order and politics. The ongoing digitalisation over the past decades and its influence on all areas of life is, in his view, not just another wave of mechanisation like that driven by coal and steel in the 19th century or the triumphant success of plastics in the 20th century. Rather, it requires fundamental reconsideration, including the ontological assumptions underlying the political. The object- and individual-oriented ontology (referred to as »Ur-philosophy«), which, according to Luciano Floridi's diagnosis, goes back to Aristotle and Newton, should be overcome in favour of a determination of the basic elements of the political based on *relations*. The traditional »individual human project« should at least be supplemented or even replaced by a »social human project« (319 ff.). Instead of thinking society in terms of the individuals and putting them together like children build a castle from Lego bricks – the author often uses the metaphor »lego« –, the ontological starting point should be sought in the relationships between them. For example, he states very clearly: »society is not lego« (315) but »society is the totality of the relations that constitute it« (327). Based on this thesis, Floridi develops a set of rules for the »mature information society« consisting of

¹ I would like to sincerely thank Sylke Wintzer and Miriam Miklitz from ITAS for the translation of this paper.

69 paragraphs, which I read as a proposal for a philosophical »constitution« of this future society (327 ff.).

In an original, sometimes daring and often stunning way, Luciano Floridi combines themes, people and issues that at first seem far apart. Besides his main protagonists Aristotle and Newton, whom he identifies as the forefathers of the traditional political ontology he criticizes as inadequate, he draws on a number of figures of contemporary politics such as Margaret Thatcher and Donald Trump. But also the Evangelist Matthew, the European Union, Thomas Hobbes, the Apostle [107] Paul, Brexit, Karl Marx, James Madison and the Peace of Westphalia, among many others, play a role on the stage of the world theatre created by Luciano Floridi. The intention of this drama is to outline the cornerstones of a future »mature information society«, a visionary social system built on the core values of tolerance, justice, peace and freedom (327).

In the current situation where the grand narratives have become rare, and are often met with distrust, and where even philosophy increasingly surrenders to the dictates of the smallest publishable unit, the contribution is remarkable, if only because of the high-altitude perspective chosen. Among the concert of voices in the debate on digitalisation, Floridi's narrative competes on the same level with other great narratives, such as »Superintelligence«², »The Singularity is Near«³ and Post- and Transhumanism⁴, each of which, in its own way, looks at the end of humanity as we know it. Unlike these, however, Floridi's approach takes a humanistic perspective. The values he placed at the top of the »constitution«, such as tolerance and freedom, which are supposed to establish a proper order in the »mature information society«, stem from the European Enlightenment and its predecessors in Judaism, Christianity and Ancient Greek philosophy. This converges in some ways with the calls for a »digital humanism«⁵ and »digital maturity«⁶ – except, of course, for the central question of *whose* humanism and maturity we are talking about when it is no longer individuals but rather relations that are to form the basic elements of the political (see Section 2.2).

² Bostrom (2014).

³ Kurzweil (2005).

⁴ Hurlbut/Tiroshi-Samuels (2016).

⁵ Nida-Rümelin/Weidenfeld (2018).

⁶ Grunwald 2(019a).

Luciano Floridi's methodical approach is unusual. While authors often tend to hedge their bets and provide a wealth of references, he relies on »naivety« combined with a reference to the Gospel according to Matthew (310). This includes, firstly, almost complete avoidance of references to authors and literature with the argument that »they do not serve but hinder the development of ideas and the flow of reasoning« (311). The challenge of establishing a new order for the information society is to be addressed in a purely problem-oriented rather than author-oriented manner. Secondly, »naïve« means not getting too close to the problems of an increasingly digital society, such as lost privacy or threats to democracy. Rather, the author wants to take one or two steps back in order to gain a more detached view of the major developments in the human history and the history of mind, on the one hand, and the challenges of digitalisation, on the other. Thirdly, and finally, Floridi also wants to be »naïve« in his normative reflections in order to prevent the visionary ideas from being thwarted by doubts about the realism of his thoughts: his ideas want to »avoid being too abstract« and »ultimately inapplicable«, but they do not want to be »overly applied either« (307). Therefore, questions of feasibility and strategies for implementation do not play a role in his contribution.

To elucidate the intellectual-historical thesis of the necessity of a new political [108] ontology, Luciano Floridi's essay contains a whole series of apt observations and subtle distinctions and insights, of which only three will be highlighted here. Firstly, the criticised ontology focused on individuals in public and politics, for which Margaret Thatcher's remark quoted by Floridi (314) may paradigmatically stand, can be observed in many current debates. For example, mass media regularly search for responsible individuals and ignore systemic effects. This could be observed, for example, in the global economic crisis of 2008, when mercenary bankers and investment advisors were identified as the culprits. The incentive and value structures in the global financial system were not questioned, with the result that practically no consequences were drawn. Another example is the ethical debate on human enhancement.⁷ It focuses on technical interventions in individuals to improve their physical or cognitive performance as well as on their ethical justifiability, while there are

⁷ E.g. Coenen (2010); Ferrari et al. (2012).

no indications of a »social human project« according to Floridi (319 ff.)⁸:

Like all new technologies, cognitive enhancement can be used well or poorly. We should welcome new methods of improving our brain function. In a world in which human workspans and lifespans are increasing, cognitive enhancement tools – including the pharmacological – will be increasingly useful for improved quality of life and extended work productivity⁹.

A second observation concerns the question of how the social movements of the last decades relate to the dominance of »lego« thinking stated by Floridi. These movements, such as the hippie, ecological and peace movements of the late 20th century, were not a »social human project« but merely the other of the »individual social project« (321) he criticises as inadequate. Although, or precisely because, these movements set out to solve some of the problems of the »individual human project«, they involuntarily contributed to a stabilisation of the »lego« interpretation of society instead of attacking its foundations. For example, strong voluntary commitment, however positive it is, compensates for the loss of political substance instead of driving the transition to a, in Floridi's words, »mature information society«, as he explains using Italy as an example (321). The genuinely political comes to a standstill. This dialectic, a somewhat tragic constellation, is well known from many other areas: Repairing the symptoms of problematic conditions can make them more bearable and thus unintentionally stabilise them. However, fundamentally overcoming them, which would indeed be necessary, is made more difficult or even prevented. As an example, in the efforts towards sustainable development there is continuous reflection on whether well-intentioned reductions of the non-sustainable, e.g. through more efficient technology, might not ultimately hinder the necessary system change away from the ideal of quantitative growth to more sustainable forms of life. Sustainability research, advocating more sustainability, would thus only support the non-sustainable.¹⁰

Thirdly, the concept of an »infraethics« (323 ff.) developed by Luciano Floridi is highly innovative and will certainly shape the future

⁸ Coenen et al. (2018).

⁹ Greely et al., (2008), 705.

¹⁰ Blühdorn (2007).

ethical debate on the informa[109]tion society. It directs the enlightened epistemological interest and then also the practical design interest to the intermediate areas created by digitalisation between thinking, which is reflected in rules and morals, and action, which is increasingly influenced by software applications. This aptly describes what is presumably evident in every social change of media, but which has reached critical dimensions in digitalisation. While, in principle, all media interposing themselves between phenomena and their perception by humans contain hidden structures that influence the perception of the phenomena,¹¹ modern software has produced an ethically highly relevant layer that not only guides action but also regulates it. Software applications contain infrastructures of action prescribed or at least pre-structured by the software or its producers. It is true that every technology influences the people who use it, as Martin Heidegger has already explained using the example of the hammer. However, in a subtle and effective way, »software as an institution«¹² regulates human action and also the perception of the world incomparably stronger than traditional technology (323). Search engines, for example, guide the perception and subsequent actions of users by ranking the results for a specific search term in a specific order. Software has an impact on social rules and values also by controlling digital rights, by influencing communication patterns in social media, by determining results of Big Data analytics, and so forth. Notions such as »code is law«¹³, »regulation by software«¹⁴ or »regulation by machine«¹⁵ have been used.¹⁶ They all demonstrate that a value-based »infraethics« already exists in the current information society, which often overrules existing conventions and rules¹⁷ without being transparent or democratically legitimised¹⁸. These observations, along with Luciano Floridi's conceptual reflections, point to an area that needs to be shaped not only with respect to values and business models of big companies but also with respect to ethically justified and universal values (Sect. 3).

¹¹ McLuhan (1962).

¹² Orwat et al. (2010).

¹³ Lessig (1999).

¹⁴ Grimmelmann (2005).

¹⁵ Radin (2004).

¹⁶ Grunwald (2019a).

¹⁷ Orwat (2011).

¹⁸ Brown/Marsden (2013).

Overall, the picture Luciano Floridi paints of the »mature information society« yet to be created seems like a vision of a better world that is in complete contrast to the current developments in today's information society. The latter is dominated by manipulation, deepfakes, social bots, surveillance and behavioural control, fake news and hate campaigns, paedophilia and terrorism, immeasurable power of data monopolists on the one hand, carelessness of most users of digital technologies and inability or even unwillingness of governments to enforce even minimal standards of ethically necessary action on the other. This discrepancy could give the impression that Luciano Floridi has presented a seemingly unworldly and even deliberately naive (see above) narrative, just as naively ignoring reality as Matthew's Sermon on the Mount. However, caution is advised against brushing aside his analysis [110] and direction too quickly. Because that would ignore the power of positive-normative grand narratives, which in view of the sober reality often must be counterfactual in order not to merely cynically affirm what exists. Human reasoning involves not only the »is« but also the »ought«¹⁹. It includes not only knowledge of how the word functions but also ideas of how it *should function*. Without the dimension of the »ought« nothing would improve, neither in technology nor in society. Naive in the best sense, Luciano Floridi points out that further development is open to design and that it is worthwhile to stand up for a normatively motivated »mature information society«: for tolerance, justice, peace and freedom (327).

2. Questions to Luciano Floridi

Of course – how could it be otherwise – many questions remain open, and some diagnoses and positions motivate critical remarks. In the following, I will not criticise the central philosophical classifications, e.g. whether Luciano Floridi's characterization of »Ur-philosophy« and interpretation of Aristotle withstand philosophical and philological criticism. For the purpose of this commentary, I will accept them as introduced by Floridi. My interest and critical inquiries are rather directed to the subsequent line of argumentation. Is the paradigm shift in political ontology from the centrality of objects and individuals to

¹⁹ E.g. Anscombe (1958); MacIntyre (1981).

the centrality of relations, as postulated by Luciano Floridi, plausible or even necessary? Is it the appropriate philosophical treatment of criticised phenomena in the contemporary political sphere? And is it the adequate response to the specific phenomenon of the information society in the midst of the ecological crisis, as the combination of »blue« and »green« in the title promises? The diagnosis of the paradigm shift he calls for, »It is going to be a hard selling« (314), shows that the persuasiveness of his arguments must be very strong in order to gain acceptance for his thesis. Beyond dealing with the central questions, it is unfortunately not possible in this commentary to do justice to the abundance of arguments and individual observations presented in the essay. I ask for your understanding.

2.1 On the argumentative role of digital transformation

In the title of his essay, Luciano Floridi speaks programmatically of a »mature information society«, which is obviously meant to be a future one. This leads directly to questions about the underlying problem diagnosis: (1) Under the goal »to understand and improve the world« (307), it must be clear what is to be improved and why, i.e. what is currently in a bad state. The distinction between »mature« and »immature« raises the question of how the diagnosis of »immature« is supported by criticism of manifestations of the current social and political system. (2) Moreover, it must be asked what the word »information« specifically means. After all, the »information society« is part of the essay's title. Both questions aim to understand [111] what exactly the problem is that Floridi wants to answer. In order to judge the suitability of the means he proposes to solve the problem – a new political ontology – the problem itself must be well understood.

(ad 1) Luciano Floridi underpins his diagnosis of the need for a turnaround in political ontology primarily through criticisms of certain characteristics of current politics. He argues, for example, that political communication is no longer about content and arguments, but about the *form* of communication. Today, he says, the communication mechanisms of politics are often no longer distinguishable from those of marketing (308). Floridi cites as an example the populist marketing of the Brexiteers, in particular the constant repetition of the assertion that Brexit will solve all problems. In terms of commu-

nication, this is usually linked to TINA – there is no alternative. For example, during the election campaign, Trump exclusively associated the real alternative Biden administration with the decline and even the intended destruction of the USA. Floridi fears that such mechanisms, which are often successful, result in »a downward spiral of negativity that eventually leads to useless polarization and a corruption of society's confidence in its political abilities« (309). Presumably, there is wide agreement with this diagnosis in view of the developments in many countries, such as the rise of Trumpism in the United States and similar phenomena in many countries.

(ad 2) So while Luciano Floridi's concern about the political is understandable, the relation to the »information society« remains unclear. There have been crises of the political at other times, too, such as in the 1920s and 1930s with the takeover by fascist and totalitarian forces in many European countries. We must ask what the digital transformation contributes *in a specific way* to the crisis of the political. Why else would Floridi call for a return to the values of tolerance, justice, peace and freedom under the keyword »information society« (327)? This demand would have been at least as appropriate in the 1920s and 1930s. The effects of digitalisation are in fact mentioned several times, and it is even said that the emergence of the information society raises new political questions (311). There is certainly no doubt about that. However, it is not specified in what way this statement supports the author's extremely far-reaching argumentation. In most passages of the essay, the word »information« in »information society« could simply be omitted or replaced by »modern« or »late modern« without becoming incomprehensible or losing substance. In the »constitution« of a »mature information society« (327 ff.), information-related terms appear in only five of 69 articles (58–61 and 69). By far the largest part of the essay has a universal claim and would be meaningful also without reference to the information society. Some of the remarks even appear to be timelessly valid. For example, the association of object-related ontology with war and relational ontology with a path to diplomacy (316) is in no way related to the digital transformation, but could just as plausibly be transferred to large parts of human history. Thus the question remains open as to which attributes of the information society *specifically* contribute to Floridi's overall argumentation (Chap. 3).

The intention here is not to downplay the digital transformation through historical relativisation; on the contrary, it is undoubtedly of

epochal significance. It is certainly not limited to quantitative shifts such as the acceleration of communication and the instant and mobile access to practically any information. Rather, it entails qualitatively new challenges, also and especially for the political through to its philosophical and cultural foundations. Nevertheless, I would have liked to better understand what, in Luciano Floridi's eyes, is this *qualitative* novelty that leads him to call for a change in the political in its ontological core. The hypothetical story following the quotation from James Madison (325), about whether people needed politics and governments even if they were angels, makes the point clear. Because his plausible argumentation that angels also need rules of understanding, of decision making and thus politics and governance was already valid before the advent of the information society, as Floridi himself indirectly notes: »This cost [impacts of missing governance, A.G.] can be very high and morally negative in any society« (325). The need for a paradigm shift and a »social human project« (319 ff.) is, argumentatively, not recognisably related to the digital transformation.

2.2 On ontological individualism

Luciano Floridi is not satisfied with looking at the surface of the political, where one can discuss many measures against the crisis phenomena mentioned above. Rather, he sees the deeper cause in the political ontology underlying the phenomena, the »Ur-philosophy« (311), as he calls it, going back to Aristotle and Newton. In the first paragraph of the »constitution« for a »mature information society« (327), he gets serious about the paradigm shift repeatedly called for: »A society is the totality of the relations that constitute it«. It becomes very clear that in his eyes this is not only a supplement or a new interpretation: »Our way of thinking [i.e. the »Ur-philosophy«, A.G.] ... is now obsolete« (311).

Two questions arise here: (1) Is it possible at all to make a clear distinction between the orientation towards *objects* (which, according to Floridi, also include individuals) and the orientation towards *relations* in the sphere of the political? (2) Is the diagnosis correct that the political ontology linked to the »Ur-philosophy« is the cause of the above-mentioned current crisis phenomena of the political? If both questions are answered in the affirmative, Luciano Floridi's

argumentation is in principle valid, irrespective of whether or not it can be specifically related to the digital transformation (see above).

(ad1) The author speaks of the two discussed options of political ontology as logical alternatives in the sense of an either/or and of a paradigm shift as of a binary switch. This undoubtedly benefits analytical clarity. However, it must be asked whether this binarity can be maintained logically and practically. But exactly this is not the case in both directions: individuals cannot be conceived of without relations, and relations cannot be conceived of without individuals. Individuals are no atoms of the social, no dead and immutable »bricks« or »elements« (311/312) like in a »naive set theory« (312). The mechanistic image of a society consisting of »atomic entities« that underlies his »lego« analogy does not apply. Although the exaggeration is always illustrative, especially when it comes to examples from libertarian neoliberalism, it has something of the creation of a powerful straw man just to knock it down. This needs to be explained. [113]

Individuals are not elements with fixed properties but develop, as Floridi himself notes, *through relations* to which they contribute themselves. Individuality is not an inherent quality but develops in the medium of manifold relations. In the formulation of German sociologist Georg Simmel, for example, individuality develops through the crossing of social circles.²⁰ This description was motivated by the observation that individuality could develop even in the rapidly growing large cities with their mass phenomena towards the end of the 19th century. Another influential perspective on the relation between individuals and relations was established by Jewish philosopher Martin Buber in the dialogical principle.²¹ The Internet can multiply the possibilities of crossing the circles of others and thus contribute to further individualisation.²² Thus, individuals do not exist statically against or without relations but develop dynamically *through relations*. Floridi's description of the »personal fabric« (318) at least seems compatible with such a dynamic view of individuals (see also § 52 and § 56, 333f). Individuals and relations are not alternatives, but individuals need relations to be and become individuals. The often so illustrative analogy between traditional society and »lego« is

²⁰ Simmel (1890).

²¹ Buber (1923).

²² Grunwald (2018).

therefore ultimately misleading. However, then the question arises as to who actually represents Floridi's criticised position of a mechanistic, or following Newton, even *physical* society as a philosophical view of society.

Conversely, relations need individuals among whom they can develop and exist. The relations that constitute the political cannot be borne otherwise than by individuals, who are bearers of rights. Relations have no human rights, no right to demonstrate and no active or passive right to vote. Nor can relations form a political opinion or assume responsibility. Politics is therefore inconceivable without individuals as bearers of relations. The political cannot do without a *methodological* individualism for the corresponding epistemology, nor without a *deontological* individualism for the individuals' possibilities of participation in the political sphere. There is no contradiction in methodologically starting from individuals, deontologically ascribing rights to them and at the same time seeing relations as a characteristic of the political. Therefore, the sentence »Society [...] builds itself in terms of ›lego‹« does not apply (313), while the reformulation »Society [...] builds itself in terms of individuals« seems to make sense for methodological and deontological reasons, at least as long as the individuals are not understood ontologically analogous to simple physical elements. Individuals are not Lego bricks.

In the light of this, I miss the dimension of rights, such as civil and human rights, in the »constitution« of the »mature information society«. I see a danger here: the exclusive orientation towards relations can – this is certainly not intended by Luciano Floridi – contribute to a descriptive and functionalist narrowing of the political. If we were to radically extrapolate thinking in functionalist categories of relations in a thought experiment, there would be no barrier against an occasionally delineated future in which individuals would be merely functional »end devices« in [114] a globally networked system.²³ This purely hypothetical consideration is intended to make clear that something is at stake when the deontologically supported role of individuals equipped with rights is lost sight of due to the higher weighting of relations.

The political is thus genuinely relational on the one hand and dependent on individuals with rights on the other. There is no either/or alternative or possibility of a binary switch between

²³ Grunwald (2018).

paradigms, but it is a matter of a both/and in the sense of a dialectical complementarity. This is no different in the analogy to physics Luciano Floridi uses: the wave-particle dualism is not a logical either/or alternative but a both/and which is actually not always easy to understand. In this *complementary* (here the analogy to the wave-particle dualism of physics applies) but also *asymmetrical* (here it does not apply) relationship between individuals and relations in the ontological foundations of the political, their relative weighting can vary historically and culturally. In the current digital transformation, the importance of the relational and the networks must certainly be emphasised, and this must also be reflected in political philosophy. In this line of thought, I follow Luciano Floridi.

The complementary but asymmetrical relationship between individuals and relations has been modelled many times in political philosophy. John Dewey, for example, presented a model of modern and democratic society. Dewey's point of departure is a liberal view on citizens, i.e. individuals with civil and freedom rights, in modern society. His basic observation is that indirect consequences of human action occur which may affect the rights and freedom of others. Dewey regards the regulation of these indirect consequences as the main business of politics, while the common awareness of these indirect consequences forms relations building »the public«. In accordance with the normative fundament of liberalism and individual human rights, he introduces democracy as a combination of the regulation of indirect consequences and the normative expectation that everyone should be involved.²⁴ I see no logical reason why a deontological individualism of this kind should not allow for a social human project, whether in the American society of the early 20th century or in today's information society.

As a constructive suggestion and interim conclusion, I want to motivate an expansion of the first paragraph of the »constitution« of the mature information society: Society is the totality of the individuals and the relations among them. In addition, of course, my question to Luciano Floridi would be what he thinks of the proposal, and what would change in the other 68 paragraphs. I think: not much.

(ad 2) Is ontological individualism in the sense of the »Ur-philosophy« the cause of the present political crisis? On a radical understanding of object- and individual-based ontology as the ignoring

²⁴ Dewey (1927), 147.

of relations, a »yes« answer would be plausible. The above considerations in the context of the quotation from James Madison are relevant here. The political as an organisational form of society is inconceivable without relations between the individuals: »Politics belongs to this kind of relational phenomena« (308). Misjudging them leads either astray, as the quotation from Mar[115]garet Thatcher shows, or to a flattening of political communication to slogans designed to manipulate unrelated individuals (308). This radical interpretation, however, is an artefact. It misses the core not only of the idea but also of the reality of the political sphere, probably even the philosophical foundations of the »Ur-philosophy«. Even Aristotle in his *Nicomachian Ethics*, which I read more as political philosophy, did not model individuals like Lego bricks, but as being capable of developing and learning in the medium of relations, as far as the practice of virtues is concerned. I am therefore not convinced that the »Ur-philosophy« as a subliminal way of thinking deeply rooted in culture can be clearly identified as the cause of the aberration of the political in the present.

However, the examples put forward by Luciano Floridi for his thesis of an ontological hypostasisation of the individual are quite convincing, especially in the quotation from Margaret Thatcher and in the criticism of aberrations in the political sphere, such as populism in the last ten years or so. But if the »Ur-philosophy« cannot serve as their cause or its overcoming as the solution to the problem, what could it be? Here I would like to make an assumption. Reading Luciano Floridi's remarks not as a plea for a fundamentally new political ontology but as harsh criticism of the libertarian metaphysics of neoliberalism with its individualistic view of humans, it all seems plausible, the examples as well as the call for a »social human project«. Then the above questions and doubts about the argumentation lose their power and relevance. Is Luciano Floridi not primarily focusing on Aristotle and Newton, but rather on developments since »Reagonomics« and »Thatcherism« with their ontological foundations? The frequent mention of the »grande dame« of militant neoliberalism Margaret Thatcher, the diagnosis of political deliberation turning into marketing, the references to Trumpism and Brexit, and also the criticism that today it is not a matter of a »happy society« but of a society in which every individual has the opportunity to become happy (320): all these indications in fact suggest this. The many examples from the economy can also be meaningfully integrated here, because, in

neoliberal thinking, states are often seen as companies which should try to make »deals« among themselves instead of laboriously negotiating fair contracts. Finally, also the second quotation from Margaret Thatcher, where she compares politics with the management of a private household (314), fits in with this. Neoliberal thinking in its radical forms attempts to marginalise the political, while at the individual level the greatest possible satisfaction of needs in the sense of the »pursuit of happiness« should be ensured.

If this assumption is correct, the paradigm shift called for by Luciano would be too heavy artillery. For there is no automatism leading from Aristotle to Margaret Thatcher. Historically, this is illustrated by the fact that the »Ur-philosophy« certainly also allowed for »social human projects« in the sense of Floridi. Here, I would like to mention only the »New Deal« by Franklin D. Roosevelt and the »Social Market Economy« in Germany. Even the most justified criticism of neoliberalism and its ontological foundations alone does not legitimise the abandonment of the structures of Aristotelian logic. Floridi's broad intellectual-historical perspective combining Aristotle and Newton in the »Ur-philosophy« contrasts too strongly with the very specific political references from recent decades. Margaret Thatcher as an illustration of an individualistically narrowed ontology of the political seems more like a caricature or aberration than a telos of a more than 2000-year-old history of thought that should be disposed of.

2.3 On the integration of »blue« and »green«

Luciano Floridi's »grand narrative« programmatically claims in its title to bring together two of the greatest current challenges of politics: the shaping of the digital transformation (the »blue«) and the implementation of sustainable development (the »green«). While the essay does repeatedly mention the digital transformation, even if it is not specifically reflected in the argumentation (cf. Sect. 2.1), there are hardly any references to the »green«. Sustainability is mentioned as a goal, and the »sharing economy« is cited as a linking element between »blue« and »green« (309). However, no reference is made to the foundations of a programmatic integration of the two fields. Without this being explicitly stated, the impression arises that the object-oriented »Ur-philosophy« criticised by Floridi is both the

cause of the crisis of the political in today's information society and the cause of the ecological crisis. This might make it possible to address the challenges of both the »blue« and the »green« simultaneously with a single approach. The thesis that both crisis phenomena have a common cause and that they can be cured by the same therapy is, however, neither explained nor substantiated.

This is regrettable, especially because Floridi's focus on relations would certainly have provided an opportunity to address the relationship of humans to nature, to criticise traditional relationship patterns and to advocate the reorganisation of this relationship in the face of the ecological crisis.²⁵ The author at least hints at this in passing (316). Elaborating this reading of relational ontology might open a way to think the human-nature relation beyond the exploitation scheme that is at least a concomitant of the political phenomena Floridi criticises, especially Thatcherism and Trumpism. Of course, this consideration leads back again to the assumption that Luciano Floridi's real target is individualistic neoliberalism (see above). It is plausible that this would neither allow a »social human project« nor an »ecological human project« and certainly no justification of a »mature information society«, but be its negation. These thoughts would require deeper consideration.²⁶

2.4 On the frames of reference underlying the argumentation

The »naivety« Luciano Floridi consistently adheres to leads, as intended by the author, to a very nice flow of argumentation, unencumbered by too many footnotes and references, which often turn scientific texts into a linguistic labyrinth. However, there is a downside to this »naivety«: again and again, questions about the frame of reference of the arguments and assertions arise while reading. To give just a few examples, there is frequent talk of »good« and »bad« politics, often also of the [117] »right« choice, without specifying the criteria for good and bad. Sentences like »Today, there is no lack of good policies« remain uncommented, as if these assertions were general consensus. There is no explanation of which policies are meant and which actors find them good and for what reasons. Floridi presupposes

²⁵ Jahn/Becker (2006).

²⁶ WBGU (2019).

the consensus instead of substantiating the sentence as a thesis or at least illustrating it by examples. Similarly, the philosophical »constitution« for a future information society (327 ff.) is not introduced on an argumentative basis, but appears like a constitutional text awaiting a referendum, not as a draft that would first have to be philosophically and ethically discussed.

In the self-imposed »naivety«, Floridi assumes a consensus with his readership on the meaning of »good« and »bad« in the context of politics, of the meaning of »right« and of »mature«. But this consensus apparently does not exist. Between libertarian and communitarian, deliberative and representative, European and East Asian conceptions not only a political but also a political science and philosophical debate is going on. The appeal to a common understanding therefore goes nowhere – and raises the question of what understanding Floridi's labels of »good« and »bad« are based on. The same applies to the diagnosis of the information society. Does a sentence such as »... information societies ... are maturing before our eyes« (320) mean that they are developing according to certain normative criteria, and if so, according to which criteria, or merely that they are aging?

I also have questions about the »constitution« of a »mature information society« (327). With the certainly consensual values of tolerance, justice, peace and freedom (327), Floridi follows the European Enlightenment. Non-European cultures, where the values are possibly weighted differently and which do not have the problem with the »Ur-philosophy« to the same extent because they only got to know Aristotle in the modern age, are not addressed. I note this because I think the »mature information society« can only be understood as a global and thus intercultural form of the political. Moreover, as is well known, there is no direct path from abstract values or even principles to social order and political action. Above all, conflicts of values and goals must be resolved. However, the essay makes no reference to procedures of conflict resolution, the core element of the political (327 ff.), although Floridi sees their necessity.²⁷

In this way, parts of the argumentation remain in argumentative limbo. The essay's tone is stating, not discursive. It assumes certain consensuses and demands agreement. A philosophical discussion, however, would have to descend into the depths of reference frames

²⁷ Cf. e.g. the discussion of the quotation from James Madison (325).

and theories, of presuppositions and premises, of concepts and sets of criteria in order to enable argumentative transparency. Of course, I readily concede that these desiderata cannot be satisfied within the narrow confines of an essay. Luciano Floridi's »grand narrative« rather needs a monographic book project as a suitable form. [118]

3. Résumé

These were my main questions. Ultimately, they can be grouped around two main themes: (1) the uncertainty about the specific difference the word »information« makes in the reasoning for a new political ontology and (2) the double problem in the »lego« metaphor: individuals in the political sphere are neither simple building bricks, but develop in the medium of relations, nor are they physical objects, but bearers of political rights. Therefore, in sum, I think the call for a binary shift from an object-centred to a relation-based ontology is both unnecessary and impossible without significantly curtailing the nature of the political.

Beyond this critical résumé, there is much approval in detail, for example regarding the future of the EU as a normative project (311, 317), the call for universal inclusion²⁸, which in particular »must include the »silent world« (322), the call for recognition of human fragility (§ 56, 334), as opposed to the neoliberal meritocracy or performance enhancement society.²⁹ I also completely agree with the humanistic tone and appreciate that Luciano Floridi, with this essay, as with other publications, is not satisfied with optimising the philosophical ivory tower, but that he naively, in the best sense of the word, formulates the goal »to improve the world« (307).

In my opinion, the main merit of Luciano Floridi's essay is having opened up a major and urgent discussion. Even if there is need for further clarification, I agree with him that – in my words – the challenges of digital transformation cannot be met with some ethical guidelines on artificial intelligence or a General Data Protection Regulation. The transformation goes considerably deeper, as discussed in the essay, into the foundations of political philosophy, but also into

²⁸ Grunwald (2019b).

²⁹ Grunwald (2013).

other areas of philosophy, such as anthropology, by raising radical questions about the self-image and role of the human being.³⁰ Digital transformation brings about shifts in fundamental configurations, for example, when decision-making power is transferred to autonomous systems. The traditional subject-object constellation with the human being as subject and technology as object is challenged, partially even becoming obsolete, or is at least undergoing a major transformation. Increasingly, technology is becoming the subject and human beings the objects of machine decisions. Here, philosophy is called upon not so much in its role as ethics, but rather in a hermeneutic role to recognise and understand the ongoing and sometimes insidious changes. The concept of hermeneutic technology assessment is a proposal in this direction.³¹ There is plenty for philosophy to do.

I would like to emphasise Floridi's observation and diagnosis of an »infraethics« (323 ff., cp. Sect. 1 above). Even though traditional mass media such as daily newspapers, radio and television are not value-neutral information infrastructures, but are each subject to preferences and interests that restrict the freedom and autonomy of their users and even lead to filter bubble phenomena and manipulation, the im[119]portance of the intermediary between the world of phenomena and social mass communication has multiplied in the information society. The concept of »infraethics« is a central finding of Luciano Floridi's essay and is, unlike the call for a new political ontology, specifically linked to the information society. Floridi demonstrates how the conditions for moral judgment and hence also its outcomes are influenced by software here. The essay provides a basis for further reflection, which I would like to touch upon only briefly.

It is striking that Luciano Floridi uses the word »power« very sporadically, and if so, then always as »political power«. However, a characteristic of the information society is that power is to a considerable extent transferred to the developers and providers of software applications. We must urgently ask who is shaping the »infraethics«, that is, who is developing and implementing the underlying technical infrastructure and thus exercising significant power. This moral and political power, for instance of Silicon Valley companies, is owed to an economic monopoly position and is not authorised by any demo-

³⁰ Grunwald (2021).

³¹ Grunwald/Hubig (2018); Grunwald (2019b).

cratic legitimation to regulate moral judgement and human action at a global level (cf. the short discussion on »software as an institution«, Sec. 1). This situation is not compatible with a »mature information society« according to the philosophical »constitution« (327 ff.). What can be done?

At present, public debate is dominated by the impression of a self-dynamic development of digitalisation in the fatalistic tradition of technological determinism.³² Digitalisation is viewed like a high-speed train that can neither be stopped nor influenced in its direction. Accordingly, society and individuals would be forced to merely adapt to the »infraethics« used by a few to exercise power over the many. This rhetoric operates with (supposed) arguments of practical constraints and a (likewise supposed) lack of alternatives. But it no longer asks about the actors behind the digital progress, their values and interests, about power, influence, responsibility and legitimation. It is important to expose this narrative as ideology.

Because: Technology and innovation must be *made*. Every single line of a source code is written by humans. Software runs on hardware, which is also produced by humans, or by machines which have been developed and programmed by humans for this purpose. Algorithms, robots, digital services, business models for digital platforms or applications for service robots are invented, designed, manufactured and used by humans. Search engine software, the algorithms of Big Data technologies and *social media* are all developed and implemented by human actors – namely by *specific* actors. The makers of digitalisation usually work in companies, organisations or secret services. They pursue certain values, have opinions and interests, follow a corporate strategy, political guidelines, military considerations, etc., which influence their decisions and thus global »infraethics«. ³³ Voices from citizens and civil society are ignored. The principle of universal participation (§ 17, 331) or inclusion³⁴ is severely violated when values and interests of a few global corporations [120] implement the »infraethics« for the whole world and thus exert non-legitimate influence.

However, there is not *the* digitalisation or *the only* way of digitalisation into the future. Instead, the future of digitalisation is

³² Grunwald (2019a/b).

³³ van den Hoven et al. (2015).

³⁴ Grunwald (2019b).

a space of possibilities full of alternatives whose diversity is also related to the values and interests of their creators. Which of these will one day become reality is not determined by technology but depends on many decisions at the most diverse levels, in companies and data corporations, in politics and regulation, in markets and user behaviour. Therefore, we can regain a *formative view* on the further development of digital transformation. Instead of anticipatory adaptation to the supposedly self-dynamic development of digitalisation, it is about shaping this development in terms of a social will, perhaps even a »social human project« in the sense of Luciano Floridi. I think a mature information society cannot be achieved without society regaining its ability to shape itself including its technologies, which is ultimately also a question of power. Luciano Floridi indicates this briefly in the final section of the essay: it is about the »governance of the digital« and about overcoming the risks of the »colonising monopoly«. It is not only worthwhile to continue thinking in this direction, but I think it is even essential.

I enjoyed writing this commentary and it provided me with new ideas. I think the approach is refreshing, although provocative in its radicalism. But the latter also belongs to the best of philosophy: exploring new ways of thinking. I hope that Luciano Floridi's witty suggestions will be widely disseminated and actually will make an at least small contribution to improving the world (307).

Bibliography

- Anscombe, E. (1958), »Modern Moral Philosophy«, in: *Philosophy* 33(124), 1–19.
- Blühdorn, I. (2007), »Sustaining the unsustainable: Symbolic politics and the politics of simulation«, in: *Environmental Politics* 2, 251–275.
- Bostrom, N. (2014), *Superintelligence: Paths, Dangers, Strategies*, Oxford.
- Brown, I./Marsden, C. T. (2013), *Regulating Code. Good Governance and Better Regulation in the Information Age*, Cambridge, MA.
- Buber, M. (1923[2008]), *Ich und Du*, Stuttgart.
- Coenen, C. (2010), »Deliberating Visions: The Case of Human Enhancement in the Discourse on Nanotechnology and Convergence«, in: Kaiser, M./Kurath, M./Maasen, S./Rehmann-Sutter, C. (eds) (2010), *Governing Future Technologies. Nanotechnology and the Rise of an Assessment Regime*, Dordrecht, 73–88.

- Coenen, C./Ferrari, A./Grunwald, A. (2018), »Wider die Begrenzung der Enhancement-Debatte auf angewandte Ethik«, in: Erny, N./Herrgen, M./Schmidt, J. (eds) (2018), *Die Leistungssteigerung des menschlichen Gehirns*, Wiesbaden, 57–85.
- Ferrari, A./Coenen, C./Grunwald, A. (2012), »Visions and Ethics in Current Discourse on Human Enhancement«, *Nanoethics* 6(3), 215–229.
- Frank, M. (1986), *Die Unhintergebarkeit von Individualität: Reflexionen über Subjekt, Person und Individuum aus Anlaß ihrer ›postmodernen‹ Toterklärung*, Berlin.
- Greely, H./Sahakian, B./Harris, J./Kessler, R./Gazzaniga, M./Campbell, P./Farah, M. (2008), »Towards responsible use of cognitive-enhancing drugs by the healthy«, in: *Nature* 456, 702–706.
- Grimmelmann, J. (2005), »Regulation by Software«, in: *Yale Law Journal* 114 (2005), 1721–1758. [121]
- Grunwald, A. (2017), »Abschied vom Individuum – werden wir zu Endgeräten eines global-digitalen Netzes?«, in: Burk, S./Hennig, M./Heurich, B. et al. (eds) (2017), *Privatheit in der digitalen Gesellschaft*, Berlin, 35–48.
- (2013), »Are we heading towards an ›Enhancement Society?«, in: Hildt, E./Franke, A. G. (eds) (2013), *Cognitive Enhancement: An Interdisciplinary Perspective*, Dordrecht, 201–216.
- (2019a), *Der unterlegene Mensch. Die Zukunft der Menschheit im Angesicht von Algorithmen, Robotern und Künstlicher Intelligenz*, München.
- (2019b), *Technology Assessment in Practice and Theory*, Abingdon.
- (ed) (2021), *Mensch, wer bist Du? Transformationen menschlicher Selbstverständnisse im wissenschaftlich-technischen Fortschritt*, Freiburg.
- Grunwald, A./Julliard, Y. (2005), »Technik als Reflexionsbegriff – Überlegungen zur semantischen Struktur des Redens über Technik«, in: *Philosophia naturalis* 42 (2005), 127–157.
- Grunwald, A./Hubig, C. (2018), »Technikhermeneutik: ein kritischer Austausch zwischen Armin Grunwald und Christoph Hubig«, in: *Jahrbuch Technikphilosophie* 2018. Arbeit und Spiel, Baden-Baden, 321–352.S
- Hurlbut, J. B./Tiroshi-Samuelson, H. (eds) (2016), *Perfecting human futures. Transhuman visions and technological imaginations*, Wiesbaden.
- Jahn, T./Becker, E. (2006), *Soziale Ökologie. Wissenschaft von den gesellschaftlichen Naturverhältnissen*, Frankfurt/New York.
- Kurzweil, R. (2005), *The Singularity Is Near: When Humans Transcend Biology*, New York.
- Lessig, L. (1999), *Code and other laws of cyberspace*, New York.
- MacIntyre, A. (1981), *After Virtue: A Study in Moral Philosophy*, Notre Dame.
- McLuhan, M. (1962), *The Gutenberg Galaxy: The Making of Typographic Man*, Toronto.
- Nida-Rümelin, J./Weidenfeld, N. (2018), *Digitaler Humanismus: Eine Ethik für das Zeitalter der Künstlichen Intelligenz*, München.

- Orwat, C. (2011), »Technology assessment of software-intensive critical infrastructures – A research perspective«, in: Heiß, H.-U./Pepper, P./Schlingloff, H./Schneider, J. (eds) (2011), *Informatik 2011. Informatik schafft Communities*, Bonn.
- Orwat, C./Raabe, O./Buchmann, N. et al. (2010), »Software als Institution und ihre Gestaltbarkeit«, in: *Informatik-Spektrum* 33 (2010), 626–633.
- Radin, M. J. (2004), »Regulation by Contract, Regulation by Machine«, in: *Journal of Institutional and Theoretical Economics* 160 (2004), 142–156.
- Simmel, G. (1890), *Über sociale Differenzierung*, Leipzig. www.deutschestextarchiv.de/book/show/simmel_differenzierung_1890, 16.1.2019
- van den Hoven, J./Vermaas, P./van de Poel, I. (eds) (2015), *Handbook of Ethics, Values, and Technological Design*, Dordrecht, 67–86.
- WBGU – Wissenschaftlicher Beirat Globale Umweltveränderungen (2019), *Our common digital future. Flagship Report*, <https://www.wbgu.de/en/publications/publication/towards-our-common-digital-future>

Out of the Box – into the Green and the Blue¹: A Plea for a Post-humanist Information Society

1. Out of the box

Around 1500, a century on the verge of a new age – comparable in part to ours, as the age of the multiplication of knowledge was about to arise and the new printing technique changed the world of texts, knowledge and images – the collapse of Aristotle's knowledge hierarchies was prominently depicted in Hans-Baldung Grien's woodcut, »Phyllis riding Aristotle«. It was by no means a singular event, but »re-produced« a thousand times in a thousand styles. It was the evidence that the »boxes« of dominion had been turned upside down.

At that time, Aristotle was a target of critique in various ways. His preferred organization of human society was quite clear. There was a man, a wife, a slave, a house, and a community and all this formed the ontology of his description of society. Each person, animal and plant was pressed into its corresponding »box«, which gained its essential meaning by being »part of« of a function-driven hierarchy.²

There was another issue that broke down during the age of humanism. The earth was the center of the universe, as everything fell upon it, Aristotle claimed, organizing spherical boxes in the universe which were piled on top of each other, although they groaned and creaked when applied to clearly perceived phenomena. In addition to

¹ This essay is a comment on Luciano Floridi's investigation into the »The Green and the Blue«, presented in Floridi (2020). He defines the concept of the Green and the Blue: »The title of this article takes up an idea, expressed in an article I wrote some time ago, on the need to unite green environmental policies (green economy and sharing economy) with blue digital policies (service economy), in favour of an economy of experience, that is, centred on the quality of relationships and processes, and not so much of consumption, that is, not so much centred on things and their properties.« (309).

² See Aristotle, *Politics*. See also Floridi (2020), 311.

the prominent subjugation of women and slaves demonstrated in the Aristotelian political hierarchy, the stiff ontology that also branded his cosmology was shown to be wrong. Neither was the earth the center of the universe, nor were women the receptacles for male seed.

Cosmic and political hierarchies were questioned. Giordano Bruno was burned, and Tommaso Campanella spent twenty-seven years in prison, both punished for pointing out the shortcomings of Aristotle's ontology. As a better option, they were [123] eager to present a philosophy based on the art of memory in Bruno's work, presented in the metaphysics of a functionalizing model of interrelatedness. In this model, a unit is not seen as an immobile entity, as a part in a system of wholes, but as the capacity to entail differences, the more, the wider, the better and the stronger. The turn from a part-whole driven ontology to a perspective of things as objects of information began.³

Platonism returned after having been hidden and even forbidden for many centuries. A new thinking emerged. It was what we define as the age of Humanism, which changed the prevailing political and ethical ideas of the time. Due to this change of thought, the sciences, absorbing the new information of interrelatedness, re-emerged and flourished after first having to combat the Aristotelian cosmology, biology and more.

What is branded as the Renaissance idea was the endeavor to prove how things in the world were the opposite of what Aristotle had preached. Everything was connected to everything, and knowledge was, according to the metaphysics of Tommaso Campanella, the ability to bridge the strongest opposites. Knowledge is defined in Campanella as the capacity to integrate the most striking differences, as it was meant to understand the implied similarities within. Instead of division and boxes, it created a world of interrelation and a completely different kind of scientific architecture.⁴

The new philosophy of that era criticized a scientific system based on fixed categories and the identification of entities by means of their functions. The »lego-like« structure (Foridi 2020, 311) had to be overcome, as it narrowed the possibilities of thinking about reality. Reality was frozen in an hierarchically organised ontology,

³ This is strongly defended in Cassirer's early writings, such as *Substanzbegriff und Funktionsbegriff* (1910), and his later writings. See there chapter two, »Kampf der Platonischen und Aristotelischen Philosophie«.

⁴ Campanella (1637). See also Hagengruber (2015).

completely contrary to what Plato had questioned. Plato followed the example of »emerging knowledge«, as he presents in the *Meno*, when the slave is able to recollect the knowledge of the squared square, one of the many epistemic features combatted in Aristotle's ontology. The Aristotelian theory of vision subjected the whole cosmos to the perspective of the human being and confirmed his perspective of the white male through vision and function.

Based on these functionalized units, a static society and knowledge theory was established. It could not reflect the real world, but in a tautological confirmation it reflected a reduction of a complex world structure, which organized its organisms, bodies, cities, states and plants into »wholes« claimed to be more than the parts.

Aristotle was derided by the new cosmologists and by women during the Renaissance. They all left the box of his world construction. Women overturned the box Aristotle had designated for them. Others moved the earth away from the center of the universe where it had been fixed, also for reasons of hierarchy and the confirmed vision of a human-centered definition of the cosmological movements.

The political innovators of that period agreed with this. Be it in Thomas Morus' [124] *Utopia* or in Tommaso Campanella's *City of the Sun*, the cosmological as well as the social relationships were reorganized. Campanella created a different understanding of sciences, in which different sexes, different nations, and every part of the universe interacted with each other to the advantage of all. It was a decisive step toward leaving the box. Social organization and encyclopedic interest formed a new understanding of science that reaches into our present age in a forward looking way, because it explains and determines sustainability through diversity. One's own measure of knowledge is measured against the measure of the other. Thus, there is no determination without taking the other into account (Hagengruber 2015). There is even no place for humanity's supremacy over nature and the cosmos.

2. Beyond humanist and scientific ideals: The World of the Green and the Blue

The system of the Aristotelian »box« delivers a political and consequently also a scientific system that defends and is bound to an epistemology of hierarchies. Therefore, the age of Humanism is still

the ideal of a liberal political society that combats the constraints of white male supremacy as presented in Aristotelian politics and was meant to understand all humans as equal, though it failed in doing so, as we clearly understand today. Even now, these humanistic ideals still feed the principles of those who see themselves endangered by the power of an information driven society. The claim for personal rights, founded in the age of Humanism and defended throughout the history of political thinking, is the shield against a new knowledge system that seems to deprive the individual of their rights which were created in that era and have formed our political self-understanding since then.

Humanistic values shaped in an anti-Aristotelian period in European history determine our political judgments as well as our political taboos. They impart who is on the good side. Their claims are repeated in the journals and drive the division between good and bad. The European value system that defends and protects the free and equal individual against being pressed into the boxes of tyrannical hierarchies is one of the most important contributions of this philosophical tradition to the world's value catalogue. Secure fundamental and individual rights, the freedoms of speech and assembly, and the right to express opinions and criticism stem from this, opposing the hierarchical box system which was and still is seen as tyrannical, thus being an important ethical weapon against those who deny it. Kant emerged as the great philosopher who articulated this new freedom as one that is logically compatible and coherent in itself. We can all be equal and free. Kant's definitions are the basic inspiration for the United Nations and the fundamental basis for a political philosophy of equality, the non-racist, non-sexist, and non-supremacist coordination of free individuals, though we are not completely sure how far Kant was able to follow his own ideas.⁵ And yet, this was one step of many to go towards *the Green and the Blue*. [125]

Kant's breakthrough opened up the social space, but also that of science (Kant, Critique of pure reason, § 1–7). When he made space a property of the subject, the social and physical world were changed. He had overcome the physical space system that still imprisoned the

⁵ Kant (1795/1968), *Zum Ewigen Frieden*, see »Dritter Definitivartikel zum ewigen Frieden«, »Das Weltbürgerrecht soll auf Bedingungen der allgemeinen Hospitalität eingeschränkt sein«. Doubts are raised if Kant came up to his own demands, compare the debate at the Brandenburg-Berlin Academy, questioning Kant as a racist: Esser/Willaschek et. al. (2020/21).

scientific world, shaped by the »absurdities to be found in Aristotle and Newton«, as Du Châtelet stated (*Naturlehre*, preface X).

The philosophy of the interrelatedness of the knowledge space did not only change the philosophy of social beings, but also extended our view of the world and where the social beings were nested. The humanist-based supremacy of the *Anthropos* had to be overcome. Newton's closed space was another obstacle on this path. The things we perceive are not to be found in a vessel named space. Space is the condition of our understanding of anything there is, a dimension that we presume in order to create a world of related entities, also dependent on our capacities and imagination.

The next step on this path »out of the box« is described by Floridi's *Fourth Revolution* paradigm (2014, 21). The human being had been displaced from the center of the universe and did not like the Copernican revolution. Further, humans were expelled by evolution theory from being the peak of the biological kingdom or the masters of their own rationality when Freud shattered the illusion of the conscious subject. The last realm was that of human intelligence, but Turing displaced humans from this privileged position. Now, we are back in the world. The megalomania of anthropocentric pre-eminence has not necessarily been lost with the rise of the intelligent algorithm, but its use can be understood as a free decision to better understand and to take into account the world's complexity regarding its importance for the human being. Man made himself small again to survive.

Post-humanism says that the human being has become aware of its own part in the interrelated world of *the Green and the Blue*. Human excellence leads to the insight that the machines we have created help us to understand that true supremacy means understood dependencies and interrelatedness. It requires a large amount of intelligence, whether from machines, humans, or nature, to understand that renouncing the idea of pre-eminence is part of a true insight and its denial is a cause of harsh cruelties.

The post-humanism of *the Green and the Blue* is only another step in the series of »lost uniqueness« and domination. It is the path to a new way of understanding ourselves as »inforgs«, that is, as organisms to the extent that who and what we are results from the information we have about a topic. Further, this information is not objective or static, but emerges in a phenomenon resulting from the informed relations it is a part of and knows about.

The frontiers of space have been broken down, as well as the arrogance of the egocentric (white male) human. Science is now broadly understood as being part of the big »infosphere«. (Floridi 2014, 24). There is no archidemic point of view, either to the good, or to gain knowledge. There is no single action of goodness, but for [126] every single relation there is the demanding challenge to adapt to the needs and the existence of *what there is*. *What there is* expresses itself through information.

While the humanists subjected the world to the servitude of the liberty of the white European male, going beyond this humanistic view into a post-humanist world means to understand that we are connected by the information we gain about where we are nested. The *post-human being* characterizes itself by what it is able to integrate into its own understanding, that of males, females, animals, plants, stones and water, valleys and flowers. It sees *the blue* not only as the collection of a party of people or nations, but as the open schematism that entails the social life in this world, whose borders are liquid towards *The Green*, which is not »the other« to *The Blue*, but both are representations of interrelated re-identified entities, different, as seen from a different perspective.

This info-space is a huge relational pattern system that has emerged by our own activity and by the means of digital information. This kind of understanding has not appeared for the first time. It is an ongoing striving to understand the world more profoundly. Finding ourselves in a different way thanks to the invention of our own imagination and technology, we make ourselves aware of being part of the age of the post-humanist information society. Our responsibility is growing as our knowledge does. It extends far beyond us, into *the Green and the Blue*.

3. Mapping the multitude⁶: A new epistemology

When the physical universe is seen from this dynamic point of view and when this interrelation⁷ becomes a reality for society

⁶ Some of these ideas I have presented in Hagengruber (2005).

⁷ See Floridi (2020), 315 note 7: »All entities are reducible to bundles of properties, and all properties are reducible to n-ary relations, so all entities are reducible to the totality of bundles of relations. Behaviours and changes in properties of entities are

and the world of »matter«, that is the physical universe, then it is the information gathered that counts and expresses the process of exchange and relations. It is the other to the »Aristotelian–Newtonian Ur-philosophy of things«, squeezed by and in time and space, and its concept of action is defined by the function of the organization of the »boxes«. It leaves behind the concepts of »body, organism, or system, ... coordination, cohesion etc. ... all based on this Ur-philosophy« (Floridi 2020, 325)

What we experience now, quite differently, as we »de-individualize« and »re-identify« (Floridi 2014, 26) is to understand that we are part of the knowledge structure and part of the universe of *the Green and the Blue*. This changes our idea of »humanism«, and consequently our idea of science. The box-pressed contents of [127] science have passed by. They were the ladder that is now useless in the world of informed interrelatedness.

Being confined to an informed interrelatedness means finding its limits in the actual situation, in the understanding of being interrelated by the information we gather and connect, i.e. in algorithms. It is not yet Utopia, but it is truer to reality than living in the box. The *informed interrelatedness* sees clearer about its own confinement. The process of knowing and understanding speeds up, becomes wider, more open. It is not less stable, though it is less fixed. It is prone to deception, but it also reflects *what there is* with greater probability and approximation.

Perhaps the advantage of the *informed interrelatedness* that forms the *post-humanist information society* can be compared to the advancements in science, which are all for the good and the bad, as there is no good without the bad, no knife that is limited to cutting bread and incapable of causing pain. Its progress might be understood as analogous to the invention of the microscope in biology and medicine. Now we see more clearly what has always been there, and this is why we are urged to see things differently. The *ambits of validity* of what we understand are new, varying with what we thought we knew, and providing a different view of reality. It is similar to what happens to Einstein's famous formula $E = mc^2$, which substantially changed our

then reducible to state transitions, and the latter are reducible to transitions from one set of relations to another. In short, one can use the vocabulary of relations to speak of entities, properties, actions, and behaviours – and that is all that is needed. Note that this is not a metaphysics, but a way of describing the world at a relational, instead of substantial, level of abstraction. That is, it is an epistemological ontology.«

view of the cosmos, but it takes time to understand how it shapes our physical reality. It creates and it exists in an *ambit of validity*, which is not a box, but a well-defined inter-related status from which various things emerge, not seen in this form up to now.

The status of *informed interrelatedness* is a kind of *ante quem*, instead of the *post quem* box world of stiff ontologies. It, so we hope, comes a step closer to the world as it is. Take, for example, the divisions of the box-ontology, that create obstacles of knowledge where no obstacles are in the real world. Take the example of the apple in the world of scientific description. Though chemical and physical patterns allow predictions regarding this within their own ontologies, and they share the same reality, their formal descriptions are nearly incompatible. It seems as if they are only loosely connected, if at all, divided because of their representation of reality. The world of informed relations offers its ambits of validity, which do not know these boxes but promise to proceed differently, acting on the basis of reality-based learning algorithms, for example (Hagengruber/Riss 2007). When an ontology of »bricks« and »boxes« creates and limits knowledge, *informed interrelatedness* seeks to enlarge the data-based reality, and to overcome the constraints of limited domains of knowledge, as the essential part of its epistemology, seeking in this process to approximate reality on the basis of its information.

4. Digital tribalism

Algorithms are not perfect and machine learning is constrained, seemingly a miracle, for good and bad, a mighty tool compared to what we knew before and to what we were able to make available before the information age. Information was limited to a few who used it as an instrument, for good and bad. Now, it is open to [128f] the masses. Technology is constrained by those who define and create it, and even more by those who use and abuse it. Though these tools deliver information to bring us much closer to *the Green and the Blue*. What is valid for Aristotle's »knife« is true for anything in the world. There is no »good« per se. This, of course, also holds for any machine-learning application. The threat that comes with this informational capacity is not smaller than those before. Specifically tailored attacks simulate taking over states and infrastructures and deride the trust of an informed world view. As we see more clearly and

as we see more, the »naïve-fiction« (Floridi 2020, 310) built upon the trust that we are moving forward is in danger, as it has always been.

Algorithms have always dominated our lives and have always helped us to get from one place to another. We have learned to »know« and also to understand as we begin to understand the procedure, as did Socrates in the Meno with the slave and as did Plato, when he explained the power of knowledge: To know the way to Larissa, you must not have gone there. (Meno 97 b).

The capacity provided by machine processing follows a seductive implication. However, the fact that this information production records a huge (not infinite!) number of things, and each term can (theoretically) be characterized by a huge (not infinite) number of properties, the result of this multitude *is not* what mirrors reality. It occasionally does not make sense at all. But this seems to be the most difficult to understand, when the surprising capacity of these knowledge tools provides us with so many hits. The sense of it is not implied. It has no meaningful presentation of the knowledge of the world. We even have to rethink the tradition of European philosophy, that dreamt the (white males') dream that the machines could drive the algorithms back and forth and thus know the past and the future, as was provided in Leibniz and dreamt by Laplace and is still the dream of Domingos (2015) and many others. This world cannot be algorithmically reduced to its starting points, but it is possible that the best of all possible algorithms provides predictions and tendencies. Though it must also be admitted that these never predict the future, as they are all built upon ideas (and thereby the selection of entities) of *post quem* data. The data procured by learning machines provides powerful insights, but can never forecast reality, although it produces abstractions that can be roughly applied to our understanding of reality. These abstractions do not include enough information to catch reality, but do offer a much broader base by including parts of information that were previously neglected, as we were not able to process them. Now we have instruments to do so, but hereby also instruments to abuse the material helpful for insights. It is not *re-production* of the world. Much more, it is the end of the myth of the world's reproducibility.

The *Utopia* by Francis Bacon is an example of a utopian scientific understanding that has come to its end now, as the age of the dream of Francis Bacon of full reproducibility seems to be fulfilled. But the contrary is true. The more data we have, the better we understand that

it is an infinite process to include the information about *what there is*. The *New Atlantis* of Bacon is the model of an exploitive technology that dominated previous centuries. Science is no longer the means of re-production nor of imitating the world as it is.

The idea of technical reproduction usually ignores that technology is infused with [129] »values«, values understood in the sense defined in this context as the selected re-arrangement of information and consequences. That is, applied technology infuses its application with something new, which adds to and even distorts a process it supposedly replicates. The idea that a part of nature could be used and selected as reproducible is due to »box« thinking, which has now been dismissed. The philosophical ideas that defined the last centuries assumed that the reproduction of the »boxes« of reality were a »value free« technology. Mathematics, economics and other agents could act upon them without taking into account that the action itself produced changed conditions. The applied »objective« methodologies were based on the assumption that the »box-entities« were not related to other complex parts of nature or society. It was a long and painful process to understand that »values« express these interrelations, which could not be otherwise expressed. (I will come back to this issue, presenting how Max Weber argued for such an »objective« methodology). The »values« denied by former methodologists are in truth these unknown relations and interrelatedness that are now better understood by means of information technologies. With »values« we make explicit what otherwise remains »implicit knowledge«.⁸

Today, thanks to the tools of artificial intelligence, we also better understand what »artificial morality« is, that is we understand that all these processes of *the Green and the Blue and The Grey* – if we attribute grey as the symbol of the tools of information – are intertwined. It is now necessary to build a new kind of value determination that is able to give us a lead in the handling of this immense amount of data.

As there is no way to change the extirpable fact that things can be used for good and for bad, we are aware that in the age of an *Information society*, we become victims of manipulated inter-relatedness. While technocrats still dream the dream of creating master algorithms that forecast the present and the future, the race to infinite knowledge through different methods is, nonetheless, a limited one. Each algorithm, be it evolutionist, symbolist, based

⁸ Polany (1966); Nonaka/Takeuchi (1995).

on the connectionist method, or on the Bayesian procedure, only selects data according to a given scheme. As differently as all these methods function and connect data, this is true for them all. Even bringing all these methods together does not erase the basic problem, that the selection and connection of data is not »reality«-like, but a »valued« picture of reality. The outcome is never a description of the real world, but an immediate specification of possibilities that statistically matches reality. This outcome reflects values within the applied connections of numbers. The »morality« of artificial systems is what has proceeded patterns of actions determined by determinants. However, the »maladie de l'humanité« has not been erased by it. The abuse and manipulation of data is an act of bad intention, but it is true that all data is manipulated information as the construction of data description is not »real«. Any algorithm is selection driven and, of course, by no means reflects the real world, but the elements of the technology used. However, many individuals no doubt feel ensnared by it. [130]

Ayn Rand, the defender of capitalist thought and of the human creative mind brings in an interesting point. She completely ignores that there is a European humanist tradition and denies that the humanists, among them many women, gave birth to the struggle and fight for equality and liberty (Rand 1990). She holds that »the concept of man as a free, independent individual was profoundly alien to the culture of Europe. It was a tribal culture down to its roots«. Though this is contrary to what is defended here, her definition of the tribal interestingly fits with what is happening today in social media. What Rand describes as the failure of a tribal culture is applicable to the algorithmic-driven organization of society. In her view, tendencies such as anti-globalism, racism, and superiority are based on irrationalism and the negation of the individual. The comparison of algorithms employed in social media with factors of tribalism is convincing. Though algorithms are based on Big Data and provide knowledge that allows us to understand the world more inclusively, these algorithms organize all data-providing individuals according to their scheme of community, which ends in a *manipulated interrelatedness*.

And as the navigation system sometimes leads you into the wrong road and you need reality, for example in front of a river you do not want to drive into, or a one-way street where it is too dangerous and unlawful to drive, you need to find a way out, though you do not doubt the helpfulness of the GPS per se. This

example, easy to understand, is also true in all the cases where automata lead the selective procedure. But as we find ourselves within it and guided by it, this »new world« appears convincingly similar to the »real« world. You find yourself a part of entities you never thought you would be. You find yourself forced into a »tribe«; the machine has subsumed you. «Likes« and »dislikes« create entities and groups.⁹ These functions are a new kind of tyranny that adds you to boxes you did not previously belong to, or at least, that do not fit to you, seen and understood as an interrelated being.

These machines do not want to control our future and do not want us to hate our neighbor, as tyrants did. The algorithmic tribalism is a provision, not a physical threat. This does not mean that it is less dangerous. More than ever, a liberal spirit, the insistence on transparency, and education are the keys to overcoming this threat.

5. Can AI be a good thing? A try

The paper *the Green and the Blue* asks how political thinking and practice in a mature information society can be patterned. Floridi brands his view as a »naïve« approach if »forward« is a return to naivety. »This shift, he holds, is more flexible, inclusive, and unbounded«.¹⁰ How does artificial intelligence help to support the [131] good we are striving for? The good defined and asked for is not a new God, it is the understanding of being interrelated. To know more is the only way to follow the good and to do better.

When we apply these ideas to the realm of economics they become clearer, as so many of the failings of capitalism are due exactly to this ignorance and lack of information. The idea that the implicit ethics of an information society can perform a turn from quantitative economic growth theories towards a »new« economics of quality is

⁹ I am grateful to Dorian Weiss for bringing together the procedure of social media algorithms and tribal collectivism in Ayn Rand in the seminar.

¹⁰ Floridi (2020), 316: »naïve-fication« to use a neologism – has been pursued in this article to give space to social altruism; to the intergenerational pact; to care for the world; to the sense of common homeland; to civil and ecological liability; to the political vocation as a service towards institutions, the State, and the *res publica*; to a cosmopolitan and environmentalist vision of the *human project*, understood as a society and life that we would like to see realized in the world; and finally the possibility of talking about good and bad politics.«

therefore justified (Hagengruber 2020). Though the application of AI has disruptive effects on the economy and society and demonstrates a new kind of monopoly and economic concentration and has deepened the gap between developed and developing countries up to today, it is not absurd to ask if informed economics has a favorable effect on economics when drafted on the above basis. The question of how to sketch an inclusive and sustainable technological change, proposed by Gries (2020), is a necessary demand on the possibilities of AI: inclusive, sustainable and paying attention to human's nestedness.

We all understand and have long been confronted with the absurdity of a growth economy. Robert Kennedy's famous speech on how we count and what we produce for the wealth of a nation caricatured this reality many years ago (Kennedy 1968). Yes, AI driven economics can be used and can contribute to the much needed market transparency, always blurred by social and capitalist hierarchies, to end or to reduce the impact on the environment and the effects of exploitation. The Big Data administration has the capacity to unveil those secrets of »hidden economics«, that have been active in the economic background and whose effects have been so misunderstood and misjudged as being non-important parts of it, therefore ignored and negated.

AI has the capacity to provide the means to enforce the change from a quantitative to a qualitative economics and to support a more inclusive and a more qualitative growth. Decisions made in economics can become more transparent, taking relatedness into account in the decisions that define the economic process and that influence its effects. The question is, how can *informed interrelatedness* make the still hidden but relevant processes visible and, even more, eventually bring them into an accountable context to drive a change for the better?

The neo-classicists and those driven by the phantom of an economic »objectivity« ignored the »value« factors and prominently and actively argued to deny, ignore and expel them wherever they became visible. Max Weber argued that value-driven subjectivity was irrational. According to Max Weber, macroeconomics and price stability require destroying and discarding food. Value-driven subjectivity abhors and forbids these actions that, however, cannot be part of an objective economics which must ignore these subjective factors of irrationalism and morality. Max Weber, of course, was not the only one to hold this belief, but the one who discussed the [132] conflicts

between the objectivists and the (ir)rationalists.¹¹ This ignorance and active exclusion of information, however, has its price, as we know today. Economic goods are presented in a box-world; they perform as »cut-outs«, cut off from any relation the world is nested in.

Realities that are closely involved in an economic product and related to it, in the sense of what we understand to be part of a holistic economy are actively ignored. In doing so, many relations and services are also cut off, reducing the importance of many activities and goods that are part of the good-productions, such as the services for people, mostly done by women, the service of good education, of growth relation and much more. As an ignored part of the production of goods, the ignored though interrelated parts are visible today. This refers to the economic impact of forests lost, pollution, the toxification of the environment, of animals and of ourselves. The supporting issues of the economic processes, such as forests erased, the servitude of women, white predominance, healthy or unhealthy food, are not taken into account when production costs are calculated. This ignorance leads to situations of human, animal and environmental exploitation. All these issues were judged as not relevant for the production process; now, in the age of an information society they are pulled out of the box to make us understand the causes of our ignorance and consequently our wrong-doing.

»Good economics« is compatible with the world of *the Green and the Blue*, and artificial intelligence and the means it provides is a powerful tool to support our changing path in this new direction. This new direction is not a different goal, but a different methodology to better understand. It is better, as it promises to be even closer to reality, the more we include our information about the *the Green and the Blue*. The more we are able to understand our interrelatedness, the more we will be able to organize our reality differently.

Hazel Kyrk, Professor of Home Economics, was at the beginning of that movement when she started to preach that waste management is a part of economics. She is not the only one who understood and recognized that »waste« is a productive resource. Methodologically, she understood that the production of economic goods is not the only side of the coin. Today, waste economics is not only one of the most productive aspects of economics in the world, but also a necessary field for a wholistic economic understanding (Van Velzen 2003).

¹¹ Weber (1991), 222–232; Hagengruber (2000), 83–95, esp. 84–85.

Another important factor that easily demonstrates effects of a qualitative information gain is warehousing. Big data will not only enable us to improve the circulation of goods, but also provides for a much larger and more detailed and individualized scale of products. This can already be seen in the field of individualized medicine and drugs. When the goods provided in this new economy are produced by taking into account the production interrelatedness – and this means how people are treated and goods are provided, with a view to the whole chain of production and procurement – this economy not only produces under fairer production conditions; it also contributes to a much truer cost calculation. Everything has a price: service, education, the protection of the environment. A well informed *Information* [133] *Society* has the capacity to see and understand this. Over-production, super-logistics, pollution, and exploitation are becoming topics of awareness and can be handled differently when the data is permanently connected in a way we are aware of.

To better understand the interrelatedness and interdependency and to start from that basis to work towards the good in society is the next goal.

6. The post-humanist information society – A step into the *Green and the Blue*

Human beings have presented themselves as political animals, as Aristotle said and humanists confirmed. From today's perspective, the Aristotelian political system was built upon hierarchies of dominion. There was a man, a wife and a slave, a house and a community and all this formed the bricks of the »boxes« that gained their essential meaning by being »part of« a function-driven hierarchy. This system of boxes was applied to communities, countries, and science. It was a first revolution when the humanists explained that this kind of dominion and suppression had to be overcome and they started to preach and to argue in favor of the equality and liberty of all human beings. Each one had the right to strive for happiness. In the age of information science, we begin to understand that we must go another step forward. Our happiness is bound to the prosperity and flourishing of *the Green and the Blue*. And it is due to the tools of knowledge that we not only understand the need for this new ethical system, but that our understanding of being related is the ethics we have to follow.

Humanistic political liberalism has been an important step on our way to breaking down the dominions of our political and consequently also our conceptual thinking. Once again, it becomes clear that philosophical ideas shape the world of science and the philosophy that has dominated the »boxes of our understanding« for so long has to be overcome now. Our direction is to integrate what is possibly knowable to better understand causes, relations and phenomena. On our way to exploring this interrelatedness in its depth, intelligent machines are an important instrument to allow us to learn and to understand where we are and what we do in a much wider context.

We have moved out of the box and ahead of us lies the inclusive world, presenting itself as much more united thanks to the technological means that allow us to handle the information we are now able to gather, and to improve what we know. This is no license for other kinds of violence that can be executed by these instruments and that are already reality, such as the violence of manipulation. The post-humanist era is arising, presenting itself as another big step towards inclusion. The kind of philosophical education we need for this must still be determined. It is clear that its importance will rise with it. [134]

Bibliography

- Campanella, T. (1637), »Instauratio in prologum instauratarum scientiarum«, in: *Philosophia realis*, Paris, 1–33.
- Cassirer, E. (1910/2020), *Substanzbegriff und Funktionsbegriff*, Hamburg.
- Du Châtelet, E. (1743), *Naturlehre*, Halle/Leipzig.
- Domingos, P. (2015), *The Master Algorithm*, New York.
- Esser, A./Willaschek, M. et. al. (2020/21) »Kant – ein Rassist?«, in: <https://www.bbaw.de/mediathek/archiv-2020/kant-ein-rassist-interdisziplinaere-diskussionsreihe> (Februar 15, 2021).
- Floridi, L. (2014), »The Fourth Revolution in our Self-Understanding«, in: R. Hagengruber/ Uwe V. Riss (eds), *Philosophy, Computing and Information Science*, London, 19–29.
- (2020), »The Green and the Blue. A New Political Ontology of a Mature Information Society«, in: *Philosophisches Jahrbuch* 127(2), 307–338.
- Gries, T. (2020), »A New Theory of Demand-Restricted Growth: The Basic Idea«, in: *The American Economist* 65(1), 11–27.
- Hagengruber, R. E. (2000), *Nutzen und Allgemeinheit. Überlegungen zu grundlegenden Prinzipien der Praktischen Philosophie*, St Augustin.

- (2005), »Mapping the Multitude. Categories in Representations«, in: *Proceedings of the 3rd Conference Professional Knowledge Management WM 2005*, LNCS, vol. 3782, Berlin.
- (2015), »Soziale Organisation und enzyklopädisches Interesse«, in: O. Höffe (ed), *Politische Utopien der Neuzeit*, Berlin, 139–171.
- /Riss, U. (2007) Knowledge in Action, in Stuart, Susan & Dodig-Crnkovic, Gordana (eds): *Computation, Information, Cognition. The Nexus and the Liminal*, Cambridge, 134–147.
- (2014), *Philosophy, Computing and Information Science*, London.
- Kant, I. (1781/1968), *Kritik der reinen Vernunft*. Berlin, Vol. III.
- (1795/1968), *Zum Ewigen Frieden*, Berlin, Vol. VII.
- Kennedy, R. (1968), <https://www.jfklibrary.org/learn/about-jfk/the-kennedy-family/robert-f-kennedy/robert-f-kennedy-speeches/remarks-at-the-university-of-kansas-march-18-1968> (15 Feb 2021).
- Nonaka, I./Takeuchi, H. (1995), *The knowledge creating company*, Oxford.
- Polanyi, M. (1966), *The Tacit Dimension*, London.
- Rand, A. (1990), »Global Balkanization«, in: *The Voice of Reason. Essays in Objectivist Thought*, New York, 115–129.
- Smith, B. (1995), »Formal Ontology, Common Sense and Cognitive Science«, in: *International Journal of Human Computer Studies* 43, 641–667.
- Van Velzen, S. (1990), »Hazel Kyrk and the ethics of consumption«, in: D. K. Barker/E. Kuiper (eds), *Toward a feminist philosophy of economics*, London, 38–55.
- Weber, M. (1991), »Der Sinn der Wertfreiheit der soziologischen und ökonomischen Wissenschaften«, in: *Schriften zur Wissenschaftslehre*, Stuttgart, 176–237.

Reflections on Floridi's »The Green and the Blue: A New Political Ontology for a Mature Information Society«

1. Introduction

The question of how morality and time interact with each other belongs to the fundamental questions of the ongoing philosophical and sociological discourse. Scholars ponder not only the extent to which normative concepts are valid across time and space, but also whether the normative instruments we inherited from the past are capable of guiding us in the present and future. Some scholars claim that our traditional instruments are insufficient for this task. In observing changing patterns of human interaction during the wake of modernity and striving to adapt ethical concepts to changing constellations of actors, the likes of Adam Smith, Immanuel Kant and Karl Marx have addressed technological advances and elaborated on how changes in the mode of human interaction translate into new forms of common institutions. In *Moral Time* (2011), American sociologist David Black described postmodernity as an extension of time, space and diversity, fundamentally altering the previously valid assumptions concerning human interaction. For Black, the advent of postmodernity is characterised by a shift from immediate and local relationships, revolving around intimate personal relations, to large and anonymous societies, which are largely disconnected from geographical and spatial constraints.

Floridi's essay takes the reader in a similar direction and addresses the changes that go along with the current societal and political transformations initiated by the recent wave of digitisation. His contribution is timely. Under the impression of a global crisis, which has put the global economy on hold for many months, and amidst fears of global disintegration, the quest for a new social

contract or, as Floridi would call it, a new human project, is an urgent and highly practical matter. The quest should coincide with the development of new technologies and changing social patterns that are already transforming the world in which we live. Based on an observed paradigm shift from a structural to a relational understanding of our society, Floridi deduces that the Aristotelian approach to political analysis, which has dominated traditional thought on politics, ethics and economics, fails to decipher the tendencies of our current society or comprehend the relational nature of modern information societies. Floridi instead proposes placing the focus on the [136] social fabric that connects the intrapersonal relationships of our society and elaborating a new human project that directs and guides human cooperation. Although we sympathise entirely with this approach in general, Floridi's programmatic essay nevertheless begs several questions regarding the problem statement posed by the digital era, the normative concepts behind it and the implementation of the practical norms Floridi derives. For us, the quintessential questions are as follows:

- Does a digital society demand a new political ontology?
- Is the current human project capable of creating cohesion in a digital society?
- How can we implement ethical norms in a modern information society?

In the following, we present critical reflections on the questions raised and discuss the implications of Floridi's essay from an ethical perspective.

2. Floridi's Approach to Politics in the Digital Age

The reflection on the three guiding questions requires a finer review of the essay's content. Describing the current state of the world using the right terminology and deriving normative conclusions for prevailing problem structures appear to be the fundamental purposes of Floridi's analysis. In the beginning of his essay, Floridi states that he seeks to improve political thinking so that it fits into the conditions of a mature information society.

For this purpose, Floridi sets out by challenging the dictum that »there is no such thing as society«. According to the author, the

view that social organisations purely revolve around the interests of individuals is rooted in the Aristotelian or Newtonian approach to social organisations. Floridi describes this model as a Lego-like structure because it comprehends social organisation as »units of bricks« connected to create complex structures. Floridi criticises the analysis tool or the ontological grammar employed by policy makers such as Margaret Thatcher for being incapable of reflecting the contemporary world. For Floridi, the transformation has already disrupted the traditional understanding of existence because people have disconnected »things« from the physical understanding of time and space. The presence of unperceivable worlds online has hence fundamentally altered the way we think about existence. For Floridi, this also applies to society. Apart from previously unimaginable events such as companies buying back shares or a policy of negative interest rates, the extension of social affairs and the dislocation from physical space depict the driving forces for a redefinition of the political vocabulary. These driving forces influence his approach, which has stressed the increasingly relational character of our world and has rendered the previous model on the setup of societies obsolete. Floridi summarises his insight in the way he defines society, namely as a »totality of the relations that constitute it« (327).

Apart from describing the need to redefine our instruments to comprehend contemporary societies, Floridi introduces the human project concept, which might be comparable to the Rankean »Leitidee« of the prevailing society. For Floridi, the hu[137]man project comprises the form of human life, which represents society and all its fashions. Moreover, human projects tend to be universalist in nature, because they are regularly regarded as eternal, unique and universal and are claimed to represent absolute truths. By contrast, postmodernity is characterised by the absence of such human projects at the society level. Instead, the post-modern meta-project is solely defined by the norm of tolerance, which allows individuals to realise their own human projects, as long as they do not constitute breaches of the meta-idea of mutual respect and tolerance. For Floridi, the mere existence of a meta-project is not sufficient to guide societies. Although he acknowledges the importance of moral pluralism as a major pillar of contemporary social organisations, he argues that societies require a positive idea, which defines the »social sense of the way we live together as a community«. Here, he points to the failure of many streams of thought, when it comes to grasping the

recent success of populist movements, which are challenging previous political models.

Floridi attempts to fill the observed gap that the meta-project once filled by introducing the concept of »infraethics«, which refers to fostering the right sort of social interactions. According to the author, infraethics can be understood as the social »expectations, attitudes, [and] practices« that are implicit ingredients for the success of a complex society. Infraethics therefore has an instrumental character that aims to enable gains by cooperation and orient contemporary societies. For Floridi, ethical acts create an edifice in the same way »an arch is not only a pile of stones« (325). Based on the preceding arguments, Floridi finally formulates a catalogue of concrete normative suggestions for policymaking. Here, the author elaborates on the structural principles of the modern society such as representative democracy, tolerance, and political and economic competition. The notion of economic competition deserves more attention against the backdrop of an increasing debate on the break-up of »big tech«. According to Jean Tirole (2017), the dominance of tech giants does not confront us with an »unpalatable choice between laissez-faire and populist interventions« (1), but rather necessitates a combination of open barriers to market entry and stronger regulatory monitoring for potential monopolies. This perspective on regulating competition entails a more detailed view of political and economic competition in the digital age and of the relevant question of how to maintain a high degree of competition in our economic set-up (Lütge 2019).

3. Political Designs and Institutional Ethics

The approach we employ to examine Floridi's political ontology follows an order ethics design, which has been applied to approaching normative problems arising in the context of institutional ethics (Lütge 2019; Lütge, Armbrüster and Müller 2016). Moreover, order ethics connects normative concepts with the designs of political institutions (Lütge 2015). The order ethics approach defines not only the moral desiderata of human interaction, in the sense of realising mutually beneficial cooperation, but also the potential instruments for realising norms in globalised and [138] interconnected societies. Moreover, it also focuses on the societal level, making it an apt

instrument to analyse Floridi's approach, which places more focus on political institutions than on individual decisions.

Differing from first order approaches, which take a specific moral framework such as utilitarianism or deontology for granted, second order approaches – of which order ethics is one – are about solving conflicting statements on morality between first order approaches and solving situations in which conflicting normative expectations confront individuals. From the perspective of order ethics, the main purpose of ethics is to define the normative foundations of societies under the condition of moral pluralism and to elaborate principles and structures that overcome failures in cooperation. Different from virtue ethics or deontological approaches, norms derive here from the mutual consent of individuals, with the ultimate goal of reaching mutual improvements by cooperation. A situation, which, for all parties involved, is superior to the status quo, constitutes the moral desideratum of order ethics, because it is the only way to guarantee the hypothetical consent of all social actors to a new social arrangement. The idea of social organisation exemplifies the need for common institutions to pacify conflicts among individuals and protect individual rights: it therefore constitutes an improvement when contrasted with social disorganisation or a failed state. In reality, societal arrangements often fail to reach their optimum potential and malfunction if individual, group and collective interests conflict with each other. This applies to topics such as tax havens, trade wars and pollution, where individual actors reap profits by defecting from collective agreements. Traditional approaches to individual ethics would suggest individuals should sacrifice their interests for the sake of the community. However, this approach comes at the expense of the morally acting individuals and conflicts with empirically observable human behaviour, because individuals might even exploit the behaviour of morally acting individuals. By contrast, order ethics addresses these problems from the perspective of society. Changing the rules of the game, such as changing tax or environmental laws, means therefore changing individual behaviour, because the rules affect the moral calculus of human beings. Therefore, the model of self-interested actors, which describes the behaviour of the average person, follows the purpose of guaranteeing the consent of rationally acting individuals and realising implementation by subsequent measures to enforce moral values. Moral solutions have to pass the homo economicus test to be successfully implemented and to support the

action of moral individuals, who would otherwise suffer losses by going the extra mile.

4. Evaluation of Floridi's Approach

We orient our evaluation of Floridi's essay on its structure and main programmatic points outlined above. This includes Floridi's observation of a paradigm shift necessitating a new political ontology, the role of human projects and infraethics as pillars of a new ethical infrastructure, and the question of implementing norms. [139]

4.1 Does the digital society demand a new political ontology?

As explained, Floridi based his essay on the idea that social organisation underwent a change from an Aristotelian model to a relational concept, which requires clarification, especially when we focus on the elements of change. One could argue it is not the *conditio humana* or the fundamental laws of social organisation that are changing, but rather the environment that constrains and incentivises human action. Although education and moral awareness might influence people's actions, dilemmatic situations will affect individuals in a similar fashion, leaving them unwilling and de facto unable to violate their interests constantly and systematically. In this context, new technologies may impose new restrictions, but also new possibilities for human action, and might alter the pay-off matrix of human interaction.

When we look examples of the ongoing societal tendencies, we observe that technological change is indeed reconfiguring these environments. The emergence of social media, for example, imposes different costs and constraints on human behaviour than pre-existing modes of human communication, which accompanies changing social role expectations. To capture the importance of this tendency for social organisations, we propose differentiating between *changes of degree* (e.g., increased or decreased anonymity, economic growth or globalisation) and *changes of type*, which describe the emergence of fundamentally new problems or phenomena.

Changes of degree have already accompanied us for quite a while, such as increased anonymity, the emergence of an increasingly

individualistic society and sustained economic growth. Religious affiliation in Western countries has been in decline since the early 20th century, leaving room for the emergence of post-religious identities and contributing (along with growing migration) to the emergence of pluralistic societies.

Along these lines, the extension of space and the declining relevance of spatial constraints have accompanied sustained economic growth since the onset of the 16th century. The mere presence of long-term economic growth has allowed people to create an entirely new infrastructure for distributing and redistributing wealth created by human innovations and therefore constitutes one of the major transformations in human history. Of course, these tendencies were not linear in the sense of continuing progress, but were interrupted and sometimes even thrown back by economic shocks, wars and human errors. Starting from modest beginnings in the 18th century, we see a back and forth of economic globalisation with phases of increased global trade and times of severe global confrontation. In line with the tendencies, costs and constraints either reduce or expand the realm of human action. In the 19th century, it was possible to travel from Saint Petersburg to Paris, but it took much longer than today and was more expensive, meaning fewer people were able to do so. The ethical question is how to deal with these changes of costs and constraints and determine which implications they have for humankind.

However, changes of type also exist. The emergence of the digital space and the creation of virtual realities have generated unprecedented changes for human interaction, which have redefined social relationships. Similar aspects can be observed [140] when it comes to technologies such as artificial intelligence and machine learning. These technologies allow us to act in ways we could not have acted before, which leads to the expansion of human action. The concept of artificial intelligence as a brain extension is quite an illustrative picture that might require some examples. For instance, the trolley dilemma, which had been discussed in the past purely from an armchair philosopher point of view, suddenly became relevant in the context of autonomous driving, and the designers of autonomous cars have to ponder how to program cars to deal with situations of unavoidable crashes (Lütge 2017). The same applies to bioethics: probably, 100 years ago, organ transplantations would have been regarded as pure fantasy. However, the mere potential to transplant

organs from dead and living bodies has created a fundamentally new normative debate. The increase in the realm of human options due to technology is a fundamental change generated by technological progress. Thus, we need to find the right norm, and we may have to invent new ones.

The main question is whether Floridi's claim that the changes observed contribute to a paradigm shift for the comprehension of contemporary societies and whether our old instruments are enough for deciphering contemporary societies. One might argue that the shift from a structural to a relational society is not entirely new and that societies could always have been understood as relational. To illustrate this, we refer to Floridi's example of the »structural« Westphalian model, which has influenced international politics over the centuries. However, the »structural« understanding of nation states situated next to each other as billiard balls did not meet reality, but was rather a mental model. Most historians argue that even in the 17th and 18th centuries, states were subjected to restrictions in their exercise of sovereignty and pointed to the complicated setup of many European states such as the Holy Roman Empire, described as a »monstrum« by Pufendorf, which would challenge this claim. The same applies to the multinational elites who largely governed Europe in the 18th and 19th century. In fact, international politics constitutes rather a continuum rather than a sharp delineation in terms of structure and relation.

One might therefore conclude that our current models are capable of reflecting the main tendencies observed. The »relational« character of societies has been acknowledged by recent writers such as David Black or Alexander Wendt (and in fact much earlier by Confucian scholars), who put relations at the focus of their considerations. The theoretical question of whether the digital society requires a new ontology might therefore not be the foremost question, but rather the practical question of how the tendencies encompassing the transformation to a digital society interact with our current forms and modes of political organisation may be more imperative.

4.2 How do human projects interact with the norms of modern information societies?

Based upon the observed tendencies, digitisation poses fundamental challenges to our inherited understanding of politics and ethics

because it changes some con[141]ditions by degree, in the sense of more anonymity or more diversity, but also by type in the sense of opening up fundamentally new questions. In the next part of our reflection, we discuss the ramifications of human projects on the norms of modern societies.

Floridi identified that the human meta-project depicts a fundamental quest of modern societies that is inextricably linked to the question of the extent to which societies should define their ideals and norms. Classical liberalism, as characterised by the void of a positive conception of what to do, rather focuses on the external restrictions on the human choice of values as limitations of liberty. Accordingly, autonomy is characterised by the self-legislation of moral values, as long as they are compatible with the interests and rights of other individuals (Mill 2003). It is important to note here that classical liberalism has been influenced by historical experiences. It reflects the dissent on traditional values and the diversity of moral conceptions, as well as the increasing anonymisation in large societies. The Rawlsian conception of a veil of ignorance deliberately excludes »values« that exist prior to establishing a society, and it can be regarded as providing a rather mechanical understanding of the society. Based on the historical experiences of the failure of all major ideologies of the 20th century, the Western human meta-project aimed to reduce the role of utopian thinking, instead focusing on the checks and balances to contain the dominance of one particular ideological system. From a normative viewpoint, the alleged »voidness« has a normative purpose, because it creates a neutral room for the individual pursuit of human projects and solves the prisoner's dilemma of competing human projects by introducing tolerance as a guiding principle for institutional design. Political radicalisation or the prioritisation of a particular human project above all others therefore constitutes an imminent threat to the human meta-project, which is balanced by the existence of concurring human projects. Instead of chasing a dream, the human meta-project seeks to prevent the nightmare and maintain a plurality of individual dreams. Here, the human meta-project reflects changes by degree, because it bases its assumptions on the increase of social anonymity, diversity and pluralism, overall tendencies that still confront us today. In this regard, the concept of human autonomy influences not only the theoretical debate, but also practical legislation, ranging from working conditions, the programming of algorithms in autonomous driving

and the question of how to deal with dilemmatic situations. The changes of type, in the sense of new possibilities for human beings, do not fall into a normative void, but rather into a space already determined by the norms originating from human autonomy and tolerance, including human dignity, negative liberty and equality before the law. Nevertheless, even human meta-projects face limitations when applied beyond their home societies. Not all societies share the norms incorporated in the Western human meta-project and some might be influenced by a distinct human project such as socialism or religious doctrines. Therefore, the fundamental question appears to be how to bridge the tensions arising from the co-existence of the human meta-project based on human autonomy and other concepts in international relations. This applies especially to conflicts arising against the backdrop of a more interconnected world, where individuals might have to choose between different human projects. [142]

Apart from the universality debate of human values, the lack of a positive concept of what to do has characterised political philosophy, which in turn is characterised by numerous attempts to fill this void. This includes the works of A. MacIntyre and proponents of communitarianism, who distanced themselves from the Rawlsian understanding of social organisation. The conception of »infraethics«, proposed by Floridi, which aims to establish common procedures and norms for society appears to be a similar attempt. From the perspective of institutional ethics, the need for morality in this context is important, because formal institutions alone are not sufficient for running a society. Human behaviour cannot and should not be entirely regulated by the state and by the regulator that breaks constitutional norms down to actual cases of application, but it also requires informal codes and norms that regulate the everyday lives of employees, consumers, etc. In some cases, individuals have an interest in complying with social standards. Citing Adam Smith, it is indeed »not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own self-interest«. The question of morality, however, is not only instrumental in the sense of coordination and trust, but also for fostering cohesion in social organisations. On the one hand, the difficulty that arises in the latter context is that we are faced with more dissent on absolute truths, but on the other hand, we need to agree on common principles. Here, we observe an increasing importance of self-legislated standards and purposes that fill the void

created by the absence of normative principles outside of law and statute. One such example would be codes of conduct in multinational enterprises, which contain their interpretations of human projects to which companies seek to contribute. The same applies to the debate concerning »purpose«, which allows the realisation of a human project within economic organisations. Studies have found that »purpose«, but also business ethics (Lütge/Uhl 2021), plays an enormous role in attracting and keeping employees. From this point of view, one might argue that companies compete not only for economic gains, but also to offer different human projects in which individuals would like to participate. Company projects can vary, from striving to eliminate child labour to investing in clean energy to reduce CO₂ emissions.

Based on the outlined challenges, we conclude that the human meta-project needs to maintain itself and guarantee the laicism of social organisation so that human projects are able to compete with each other. Politics needs to sort out the right division of labour between the human meta-project and its derivatives on the systemic and individual human rights levels, which compete in the society for influence and attention.

4.3 How can ethical norms in modern information societies be implemented?

Floridi set out to redefine the problem statement of politics on the basis of the tendencies and changes elaborated by the author. From an institutional ethics perspective, normative concepts are inextricably linked to norm implementation. Some indicators show Floridi leans towards an institutional approach rather than an individual approach to ethics. For example, Floridi criticises Max Weber for concentrating »on forming and directing behaviours by focusing only on actions and their effects as the entry points for any policy«. Instead, Floridi defines infraethics as expectations, attitudes, rules and norms that coordinate human behaviour on a systematic level. The difference between institutional and individual approaches to ethics requires more explanation.

Unlike individual ethics, institutional ethics considers the expected results of human beings, which can be explained by game theory (Binmore 1994). The prisoner's dilemma describes a situation in which two individuals acting in their self-interest do not produce

the optimal outcome. The typical prisoner's dilemma is set up in such a way that both parties choose to protect themselves and try to gain the individual optimum at the expense of the other. Because both players will act rationally and try to maximise their benefit at the expense of the other, they end up not realising the optimum of collaboration. A practical example to illustrate this would be the arms race between the United States and the Soviet Union during the Cold War. Both countries were interested in realising gains in national security, and nuclear weapons were the ultimate guarantee of gaining the upper hand. Both parties therefore had a strong incentive to invest in nuclear capacities, especially if the counterparty possessed a relatively small nuclear arsenal. Not opting for nuclear build-up would have allowed the other side to dominate world politics. Because of this structure, both nations participated in nuclear build-up, which resulted in an unstoppable arms race that came at the expense of economic and international security interests. The mutual lack of trust in the counterparty therefore contributed to an aggravation of the situation, because the most preferable scenario — reducing nuclear weapons — would have involved an assurance that the counterparty was doing the same. The consequences of the prisoner's dilemma for the design of ethics have been discussed widely in literature. The main implication is that changes of the behaviour of a single actor — whether a state or individual — are not sufficient for realising the optimum, because neither party has a reason to trust the counterparty. The role of institutions in changing the design of the game by allowing control over the situation and fostering mutual trust is therefore the pre-condition of incentivising human cooperation. In the case depicted, the arms race between the Soviet Union and the United States was finally solved by international treaties, which solved the prisoner's dilemma.

The question of implementing norms is not only relevant for international relations, but also for governing modern and postmodern societies with a high degree of anonymity (Lütge 2019, 2015). The extension of human relations and the loss of peer control as a means for incentivising individual compliance to general norms therefore require a focus on abstract rules. Thus, good policymaking is about finding the right rules to steer human cooperation in such a way that it realises the optimum of human interaction. However, good policy also involves looking at the bigger picture, namely the constitutional ramifications of our society. Individuals and organisations who seek

to undermine the essential competitive order of the economic and political framework might exploit the existent formal and informal rules, which aim at guaranteeing individual freedom. The market and competition can only survive in the end if the political actors are aware that defection leads to a [144] race to the bottom and if a political constitution guarantees prohibition of power concentrated at the economic and political levels.

These guarantees need to be active even during a moment of crisis, when individuals tend to call for a »strong state« and »personal leadership«. Calibrating institutions to shocks posed by digitization or more imminent crises might therefore be the quintessential task of good politics for the future.

5. Concluding Remarks

The essay of Floridi sheds light on relevant questions of the contemporary ethics discourse. His argument that digitisation requires new approaches to political science, but also to institutional ethics, is entirely legitimate. However, we propose a distinction between changes of degree and changes of type. Changes of degree reflect already ongoing tendencies that might be accelerated by digital technologies, such as the dissolution of the face-to-face society, which is facilitated by the extension of social space, the increase in anonymity and globalisation. Changes of type reflect changes of previously unknown ethical questions and refers to technological breakthroughs that expand the realm of human possibility and produce new dilemmatic situations and cases of norm derogation. The examples of the trolley dilemma and organ transplantation, but also genetic technologies show the differences between the different ethical approaches and the ongoing ideological discussions surrounding these topics. Whether these changes require a new focus or a new political vocabulary as an instrument to grasp these tendencies depends on the observer. The reflections on human projects and the role of the human meta-project are important. However, the constitutional frameworks in the West are largely based on the idea that different human projects can coexist, as long as they do not conflict with the general idea of mutual tolerance and peaceful co-existence. On the international level, however, even the human meta-projects are disputed, and finding a consensus on common

values will remain the task of future generations of ethicists. The final question is how to maintain the human meta-project of the Western civilisation. Here, we argue that Floridi's approach needs to be enriched by an institutional understanding of ethics, which appears to be implicitly taken for granted by the author. Institutions, which foster trust that is essential for human interaction, need to aim at giving room to individuals' human projects and pursuit of happiness. Nevertheless, they also need to sustain themselves in the moment of crisis and in the face of the transformations discussed before. Here lie, in our eyes, the fundamental tasks of politics in the digital age. [145]

Bibliography

- Binmore, K. (1994), *Game Theory and the Social Contract, Volume I: Playing Fair*, Cambridge/London.
- Black, D. (2011), *Moral Time*, New York.
- Floridi, L. (2020), »The Green and the Blue: A New Political Ontology for a Mature Information Society«, in: *Phil. Jahrbuch* 127(2).
- Kriebitz, A./Lütge, C. (2020), »Artificial Intelligence and Human Rights: A Business Ethical Assessment«, in: *Business and Human Rights Journal* 5(1), 84–104.
- Lütge, C. (2015), *Order Ethics or Moral Surplus: What Holds a Society Together?*, Lanham.
- (2017), »The German Ethics Code for Automated and Connected Driving«, in: *Philosophy & Technology* 4, 547–558.
- (2019), *The Ethics of Competition: How a competitive society is good for all*, Cheltenham.
- Lütge, C./Müller, J./Armbrüster, T. (2016), »Order Ethics: Bridging the Gap between Contractarianism and Business Ethics« in: *Journal of Business Ethics* 136(4), 687–697.
- Lütge, C./Uhl, M. (2021), *Business Ethics: An Economically Informed Perspective*, Oxford.
- Mill, J. S. (1859[2003]), *On Liberty*, Cambridge.
- Tirole, J. (2017), *Economics for the Common Good*, Princeton.

Are philosophical questions open? Some thoughts about Luciano Floridi's conception of philosophy as conceptual design and his new political ontology¹

1. Introduction

Luciano Floridi is pursuing an ambitious project with his »philosophy of information«. His aim is not only to present a philosophical theory of information. In the sense of the Hegelian dictum of philosophy as its time apprehended in thoughts, he claims to develop a, or better, *the* philosophy for our time – the information age. Furthermore, he is of the opinion that, within the framework of his philosophy of information, he will also be able to solve long-standing philosophical problems, on which many philosophers before him have gritted their teeth, such as the Gettier-cases or skepticism. Brought to a slogan, he therefore demands to *reboot* philosophy, as he expresses it in the epilogue of his latest book (LoI, 207).

Floridi is tackling this project in a tetralogy of which three volumes have been published to date: *The Philosophy of Information* (2011), *The Ethics of Information* (2013), and the most recently published work *The Logic of Information* (2019). This latest book of Floridi's four-volume *Principia Philosophia Informationis* is the focus of this article. One should not be misled by the term »logic« in the title, because Floridi is not concerned with a formal elaboration of the philosophy of information. The term »logic« is rather to be understood as it was used before the development of modern mathematical logic, as an investigation of the structural properties of a phenomenon or subject area.

¹ Translation by Jörg Noller.

At its core, this book is the elaboration of a philosophical metatheory, which deals with the purpose and methods of philosophy and applies them to some central questions of traditional philosophy. Following these two aims, the book is divided into two parts. The first part is entitled »Philosophy's open questions«, because Floridi explains his conception of philosophy by means of the characteristics of philosophical questions. The second part with the title »philosophy as conceptual design«, consists in the application of the method of conceptual design to selected philosophical problems.

This philosophical method is also deployed in Floridi's essay on a *New Political* [147] *Ontology for a Mature Information Society* at the outset of this volume.² The following contribution to the controversy on Floridi's work focusses on his concept of the openness of philosophical question by discussing and reinforcing four fundamental objections that Floridi takes into consideration. Subsequently, we will briefly discuss the highly controversial ethical and political consequences of the philosophical view that Floridi develops in his initiative essay for this Journal.

2. The openness of philosophical questions

For Floridi, philosophical questions are by their very nature open questions that do not allow a definite answer, even when all the empirically relevant facts as well as logico-mathematical aspects are on the table. Therefore, there is a non-eliminable rational dissent with regard to philosophical questions, even if all parties involved have a sincere interest in the correct answer:

Philosophical questions are questions not answerable empirically or mathematically, with observations or calculations. They are open questions, that is, questions that remain in principle open to informed, rational, and honest disagreement, even after all the relevant observations and calculations have become available and the answers have been formulated. (LoI, S. 9)

As a result, for Floridi, the task of philosophy is not to describe the world, but to design the world. Design takes the place of theory. He therefore calls the method of philosophy »conceptual design«. Floridi

² Floridi (2020), 311.

anticipates four objections to the thesis that philosophical questions are by their nature open. I will now present this discussion and push some of the objections further.

2.1 Discussion of the first objection

The first objection is that these open questions are either based on conceptual confusion or are pointless. In the first case, a resolution of the confusion leads to the questions being made accessible to an empirically or logico-mathematically sound unambiguous answer. Philosophical questions are thus reduced to scientifically answerable, closed questions. In the second case, their unanswerability points to the senselessness of philosophical questions. The task of philosophy would then be to work out this senselessness and to cure us therapeutically from philosophical questions. This view is often associated with Wittgenstein's dictum that the goal of philosophy is to show the fly the way out of the fly-bottle.³

Against the objection of the senselessness of open questions, Floridi argues that in life we are confronted with all sorts of such questions that we do not consider as senseless at all:

For it seems very hard to deny that many, if not most, of the significant and consequential questions we deal with in our life are open. Should Bob propose to Alice? Should they get [148] married? Is it a good idea for them to have children? How can they cope with the loss of their parents? What sense can they make of their life together? Is Alice's career worth Bob's sacrifice? And if Bob later on cheats on Alice, should she forgive him, if he repents? Or should they divorce, even if they have children? (LoI, S. 12)

One can doubt whether these questions are really philosophical. The fact that they are questions about the good life in the broadest sense, which is the subject of philosophical ethics, seems to speak in favor of this assumption. However, there are also other examples that are less plausible, such as the question of whether to host a party, which Floridi also counts among the open and thus philosophical questions, although not among the *ultimate questions*. The range of philosophical questions thus seems to be too broad.

³ Wittgenstein (1984), § 309.

2.2 Discussion of the second objection

The second objection aggravates the already mentioned point that there are many open questions about which there is rational dissent, but which are not philosophical, such as whether there will be a financial crisis next year. If there are questions that are open, but not philosophical, then openness can at most be a necessary, but not a sufficient condition for philosophical questions.

For Floridi, however, this example is not an open question in principle. By the end of next year we will know if there has been a financial crisis. However, this strategy can also be applied to many of the questions that Floridi considers to be open philosophical questions. Can we not say after the party that it was the right thing to do? And does Bob not know after a few years of marriage, say, at their golden wedding or at least on his deathbed, whether it was right to propose to Alice to marry her, to sacrifice his career for her and have children with her or not?

A further argument against openness as a distinguishing feature of philosophical questions arises when one turns to the possible reasons for openness. An obvious reason could be that theories in general are underdetermined by empirical evidence. Quine and Duhem, to whom this thesis goes back, originally did not think of philosophical theories but of theories in the natural sciences.⁴ If they are right about the underdetermination of scientific theory, the natural sciences would also include the fundamental possibility of perennial rational dissent. Consequently, openness would not be a suitable characteristic for distinguishing philosophical questions from those that arise in other scientific disciplines. Maybe the underdetermination is somewhat worse in philosophy than in science because philosophical theories are more remote from observation. But it would not be fundamentally different. And if the openness of philosophical questions is not due to the underdetermination of theory by empirical evidence, it would be important to know what is responsible for it.

Floridi could now point to another feature that he uses to mark philosophical questions. He thinks that even if philosophical questions themselves are open, the field of philosophical questions is closed in that philosophical questions always lead to further philosophical questions, but not to empirical or logico-mathematical [149]

⁴ See Quine (1975).

questions. Conversely, the area of empirical or logico-mathematical questions is not closed, because through continuous questioning we inevitably leave this area at some point and advance to open philosophical questions.

However, it is controversial whether philosophical questions can be separated from non-philosophical questions in a sufficiently clear-cut manner to determine whether or not we have just left the realm of philosophical questions. How about the following examples: What is perception? What is cognition? Wherein does linguistic understanding consist? Which conditions are constitutive for the speech act of promising? Is every effectively calculable problem Turing computable? What follows from the foundational crisis of mathematics? It is not clear to what extent these questions are philosophical questions or those of psychology, linguistics, computer science and mathematics. And even if we agree that at all science leads at some point to philosophical questions (although this point might not be clearly delineated) then the characteristic of philosophical questions would not be their openness but their fundamental nature.

2.3 Discussion of the third objection

The third objection that Floridi considers concludes from the openness of philosophical questions that they are in principle unanswerable. After all, what should an answer be based on if empirical and logico-mathematical evidence is fundamentally insufficient to answer it? Floridi counters this criticism by pointing out that empirical and logico-mathematical evidence constrains our philosophical answers, but does not sufficiently determine them. Instead, we must resort to completely different resources:

The resources to which I am referring do include Alice's beliefs, what Bob reads on the web, their cultural background, their language, religion and art, their social practices, their memories of what was, and their expectations about what will be, their social and emotional intelligence, their past experiences, and so forth. (LoI, 18)

Now Floridi is certainly right in admitting that we can find answers to philosophical questions with the help of these resources. But the problem is to what extent these answers are rational. And this is exactly what distinguishes philosophy as an academic discipline

from what is meant in everyday life when we speak of »philosophy of life«, »company philosophy« etc. These »philosophies« are characterized by the fact that one can live well with a dissent, because they do not claim to be rationally grounded. Genuine philosophy is different in that it makes a rationality claim and Floridi does not meet the challenge that permanent *rational* dissent among sincere and equally well informed people represents for philosophy.

For genuine rational dissent presupposes that the reasons for a particular philosophical thesis are as good as the reasons for its negation. But in this case, a refuting reason with a neutralizing effect emerges.⁵ Suppose I give a certain answer to a philosophical question and someone else gives the opposite answer. If both answers [150] are really equally well-justified and the parties also come to the conclusion that the opposite answer is as well-justified as their own answer, then the justification of their own answer is thereby called into question. This happens even if one does not understand the reasons of the other from one's own perspective, but believes that the other person is in an as good epistemic position as oneself.

Let us take as an example a group of friends dining in a restaurant. At the end of the meal, they receive an invoice for the entire table. They decide to simply divide the invoice by the total number so that finally everyone pays the same amount. Paul and Paula, the two best calculators in the group, are equally good at mental calculation. They try to calculate the amount each one has to pay, but come to different results (say Paula calculates 31 Euros and Paul 33 Euros per capita). Even though it is not yet clear who actually made a mistake, this difference is a reason for each of them not to stick to their own results.⁶

The justificatory force of one's own reasons is thus neutralized by rational dissent. If the possibility of genuine rational dissent is constitutive for philosophical questions and we know this, then it would no longer be rational to hold on to the respective answers to a philosophical question in the face of such dissent. It is a debatable point whether it would be still rational to even look for an answer to philosophical questions in the light of the permanent and genuine rational dissent that is constitutive for them. One may of course arrive at answers to philosophical questions with the help of what

⁵ See Grundmann (2019).

⁶ See Grundmann (2019).

Floridi calls »noetic resources«, but these answers are not rationally grounded, at least not in the epistemic sense.

This consequence also concerns the self-application of Floridi's conception of philosophy. It cannot be a position that claims to be epistemically justified. Here lies the transition from philosophical theory to philosophical design. Theoretical justification, which is oriented towards truth, is replaced by practical rationality, which is directed towards purposes. We design a philosophical view analogously to how we construct a refrigerator.⁷ The different philosophical approaches can then be explained by different purposes.

Floridi combines this pragmatist view with an anti-realist conception of truth, in which the truthmaker is not independent of the truthbearer, but is constituted by it. He follows a popular ontological interpretation of Kant, according to which the world is ontologically dependent on the epistemic subject:⁸ »To put it in Kantian terms, perceptual information about the world is the world, and the world-information by default has the probability 1 for those who perceive it.« (LoI, 91) Under these conditions, it is clear that, for example, external-world skepticism is epistemically irrelevant to Floridi, as he explains in the second part of the book with relatively high technical effort. For only if such a form of idealism applies, skeptical and non-skeptical worlds are informationally equivalent. If I were deceived by a Cartesian demon the answer to the question whether there is a glass of water in front of me [151] would be »No«, whereas it would be »Yes« in a non-sceptical, realistically conceived world.

Floridi calls the corresponding form of knowledge »maker's knowledge«. It consists in making a certain proposition come true through one's actions. Alice, for example, has »maker's knowledge« that Bob's coffee is sweet when she has put sugar in it by herself. For the design of a refrigerator, this would probably work in such a way that the designer of the refrigerator, for example, has »maker's knowledge« of the fact that the alarm signal goes off when the temperature in the refrigerator rises above 12 degree Celsius because she designed it that way.

Floridi speaks of »ab anteriori« knowledge and sees in it a new form of knowledge beyond the classical distinction between a priori

⁷ Floridi (2017), 511.

⁸ See Guyer (1987), 334–5. Unlike Kant, though, Floridi does not assume transcendental conditions for the constitution of the world by the epistemic subject.

and a posteriori knowledge. This analysis is plausible, but the question is whether Floridi sees in it a new form of knowledge that adds to the traditional ones, or whether he ultimately believes that all kinds of knowledge can be analyzed as »maker's knowledge«.

Floridi's somewhat uncharitable discussion of Plato in the first part of the book, to which he attributes the distinction between *maker's knowledge* and *user's knowledge*, suggests this. He accuses Plato of having set the course of philosophical development in favor of a preference for user's knowledge over maker's knowledge, with devastating consequences. This is an unusual interpretation of Plato. For Plato himself, for example in *Timaios*, assumes the existence of a divine demiurge who creates the sensual world according to the rational intuition of the ideas. For Plato, this demiurge also possesses deeper knowledge of the world than we do, whom, as its inhabitants, would have to be understood as »users« of the world of appearances. If one strips Plato's explanations of the mythological form chosen for didactic reasons, one must imagine this process as a kind of self-emanation, to borrow a Neo-Platonic term, of the ideas and principles assumed by his theory of ideas. Overall, Plato's work focuses on theoretical knowledge rather than on the contrast between manufacturing and practical knowledge. Instead, the distinction between »maker's knowledge« and »user's knowledge«, induces a reference to the discussion about the relationship between »knowing that« and »knowing how«, which Floridi unfortunately does not address.

The idiom of philosophy as conceptual design suggests that Floridi considers the concept of »maker's knowledge« transferable to philosophy itself. He does not, however, elaborate on this thesis by means of an example. How could something like this look like? I would like to try to play through this idea using the example of the free will debate. Let us imagine that we develop a concept of free will for criminal law in the context of legal philosophy (I suppose that Floridi would call this a model), and design criminal law accordingly (this would in Floridi's terminology arguably be the blueprint).

If we take the idea of »maker's knowledge« seriously, the assumption of freedom of will would have to be true and at least the developers of this conception would have *ab anteriori* knowledge that we have free will. The rest of us would, of course, only have *ab anteriori* knowledge in a derived sense, by referring to the experts. Let us also take seriously the thesis of the openness of philosophical questions. Could we then not also develop a philosophical approach

inspired by neu[152]rosience that argues against the existence of free will, but would just as well make this hypothesis true in the sense of »maker's knowledge«? Given Floridi's anti-realist conception of truth a philosophical thesis and its opposite could be true in different contexts. This leads us to the final objection to the openness thesis.

2.4 Discussion of the fourth objection

The fourth objection is that open questions are undefined. The thrust of the objection itself is not quite clear to me. Floridi's answer to it nevertheless sheds more light on his conception of philosophy. It consists in the assumption that open questions that are absolute, i.e. not formulated with reference to a certain level of abstraction, are bad questions.

With regard to rational dissent, one could draw the conclusion that such dissent obtains only relative to different levels of abstraction. At first glance, this makes sense. Thus, our answer to the question of how many objects exist in a room certainly depends on whether we look at objects in an everyday sense or at elementary particles. A rational dissent, which can be traced back to the assumption of different levels of abstraction, would of course simply disappear.

However, the concept of a level of abstraction (LoA), which is quite clear in this case, becomes increasingly blurred on closer examination. Floridi explains it in the course of the book using the example of Alice, Carol and Bob who are talking about a car at a party. Alice notes that the car has theft protection, was parked in the garage and had only one owner. Bob notes that the engine is no longer the original part, that the car body has recently been repainted, and that the leather trim is worn. Carol says that the old engine consumes too much gasoline, that the car has a stable market value, but that spare parts are expensive. For Floridi, the three participants of the discussion look at the car at different levels of abstraction: »The participants view the ›it‹ according to their own interests, which teleologically orient the choice of their conceptual interfaces, or more precisely, of their own levels of abstraction [...].« (LoI, 42)

According to Floridi, Alice acts on the abstraction level of the owner, Bob on that of a car mechanic, and Carol takes the abstraction level of an insurer. But to speak of different levels of abstraction here

does not really make sense. One can certainly view cars on different levels of abstraction, for example, following Daniel Dennett, from a functional and a physical stance.⁹ The individuation conditions for levels of abstraction in Floridi's sense, however, remain insufficiently determined. It seems as if levels of abstraction can ultimately be individuated arbitrarily without using a specific set of criteria or granularity for distinguishing levels of abstraction from each other. For Floridi, they are not necessarily hierarchically arranged either. Philosophical dissent could then be resolved too easily, since there is always some difference in the level of abstraction.

The impression that recourse to levels of abstraction could trivialize philosophical dissent is reinforced by another example. Floridi cites it for the thesis that philosophical questions must not be considered absolute. Thus he attributes to Turing the merit of having replaced the poorly formulated open question »Can machines think?« by a well-formulated question related to a level of abstraction: »May one conclude that a machine is thinking at the Level of Abstraction represented by the imitation game?« (LoI, 22) The dissent between Turing and his opponent is hence due to the fact that they take different levels of abstraction. But this would be wrong. It is a substantial question whether the passing of the imitation game is sufficient to ascribe to a machine the capacity to think.¹⁰ The question whether a machine can think if one accepts the Turing test as criterion is pointless.

On closer inspection, the same applies to the earlier mentioned question how many objects there are in this room. As philosophers, we are not satisfied with the fact that different answers can be given depending on whether we refer to everyday objects or elementary particles. We want to understand how the manifest and the scientific image of the world are related, to express it in Sellars' terms.¹¹ This understanding cannot be relativized to a level of abstraction.

Finally, philosophical questions have an inherent tendency to spill over to other levels of abstraction. Following Floridi, one might perhaps think that, to come back to our earlier example, one would have to assume freedom of will at the level of abstraction of criminal law, whereas one would have to reject it at the level of abstraction

⁹ Dennett (1987).

¹⁰ Block (1981).

¹¹ Sellars (1963).

of neuroscience. But the doubts about freedom of will at the neuroscientific level infect other contexts as well. The neuroscientist Gerhard Roth, for example, who is skeptical about freedom of will, consequently calls for a reformation of criminal law, because the legal attribution of responsibility is not possible without freedom of will.¹²

Against Floridi it seems that philosophical questions cannot simply be restricted to one level of abstraction. They are characterized precisely by their propensity towards absoluteness. This leads to the traditional view that characterizes philosophical questions by their general and fundamental nature. Despite these criticisms, *The Logic of Information*, like Floridi's other works, is a stimulating and readable book. As I see it, rational dissent is the motor of philosophical progress, inasmuch as it forces us to make our concepts more precise, to bring positions more to the point and to refine arguments.

3. From Metaphysics to Politics

So do we need to *reboot* philosophy? The rhetoric of revolution has a long tradition in philosophy and is currently in a worldwide social boom. It should have become clear that there are good reasons for dealing cautiously with the achievements of the philosophical tradition. Are the new possibilities of communication and information technologies perhaps forcing us to make such a radical change? [154] That too seems doubtful. The traditional approaches to philosophy rather provide a much needed corrective to the trend towards technological solutionism, a view that treats social problems primarily as technical problems.¹³

This trend is based on the disruptive ideology of the Silicon Valley. It gets expressed plainly in Mark Zuckerberg's notorious maxim »Move fast and break things.« Unfortunately, some of the things that get broken by his company are laws and democratic principles. The real challenges of the information society are the accumulation of economic power, technical know-how and political influence by the Tech Giants Google, Amazon, Facebook, Apple and Microsoft whose business models threaten the foundations of liberal democracy.

¹² Roth (2001).

¹³ The term was coined by Morozov (2014).

One of the main problems is that they are about to undermine the political autonomy of free and equal moral persons that are at the normative core of liberal democratic societies. Public political discourse is dominated and distorted by what Shoshana Zuboff called surveillance capitalism.¹⁴ It is based on predicting and manipulating the behavior of individuals and fosters hugely emotive and radical contents as well as fake news instead of respectful and reasonable political debate.

Florida's new political ontology tends to obscure these dangers. The replacement of the individual as the normative foundation of society by a relational view that reduces it to a node in a functional system lends itself readily to technological solutionism which goes against the spirit of liberal democracy. Discarding the idea of the free and equal moral person as the normative basis of political theory is tantamount to affirming the practices of the Tech Giants even if Florida wants to give them a positive spin with infraethics.

We should not fatalistically adapt our political ontology to the interests of business. Besides, there are good reasons for not founding political theory in a metaphysical view at all as Rawls argued.¹⁵ His concept of a free and equal moral person referred to here is a political and not a metaphysical notion.¹⁶ The point is to work on legal and political solutions that make business respect the laws and political values of liberal democracy. There are well-founded and elaborate ethical and political theories that provide the normative resources to understand and counter the challenges of information society. The Kantian notions of autonomy and human dignity, Habermas' analysis of the public sphere, or Rawls' elaborate conception of political justice under the conditions of reasonable pluralism are more topical than ever. The task is to bring to bear these resources to the defense of liberal democracy against the perils that it faces in the information society.¹⁷

¹⁴ Zuboff (2019).

¹⁵ Rawls (1993).

¹⁶ This is one of the reasons why Rawls is a better reference than Aristotle when it comes to the theoretical foundations of liberal democracy.

¹⁷ Nemitz/Pfeffer (2020) provide a pervasive analysis along these lines and suggest a number of detailed measures to counter the threats that arise for liberal democracy in the age of information and communication technologies on a national and European level.

The ethical ideas that Luciano Floridi is sketching in his initiative essay for this volume show his noble mind but they are not apt to cope with the massive ethical, [155] legal and political challenges of information societies. The moral issues that information and communication technologies raise are not that our ethical theories are inadequate; the problem is how to implement them legally and politically.

Maybe this was what Floridi ultimately wanted to say. But then do away with the revolutionary rhetoric about the need for a new political ontology. The Tech Giants love academic ethical discussions like these because they play into their hands when it comes to preventing effective legal and political regulations. This is not the time to turn to an alternative view that is »untested, counter-intuitive, unfamiliar [...] and does not really seem to be forced upon us by the nature of the problems with which we are dealing«. ¹⁸ The biblical naïveté that Floridi cherishes runs the risk of making us victims of the smart but bad guys.

Bibliography

- Block, N. (1981), »Psychologism and Behaviorism«, in: *Philosophical Review* 90 (1), 5–43.
- Dennett, D. C. (1987), *The Intentional stance*, Cambridge/MA.
- Floridi, L. (2011), *The Philosophy of Information*, Oxford.
- (2013), *The Ethics of Information*, Oxford.
- (2017), »The Logic of Design as a Conceptual Logic of Information«, in: *Minds & Machines* 27, 495–519. DOI 10.1007/s11023–017–9438–1.
- (2019), *The Logic of Information. A Theory of Philosophy as Conceptual Design*, Oxford (= LoI).
- Grundmann, Th. (2019), »How to Respond Rationally to Peer Disagreement: The Preemption view«, in: *Philosophical Issues* (29), 129–142. DOI: 10.1111/phis.12144
- Guyer, P. (1987), *Kant and the Claims of Reason*, Cambridge.
- Morozov, E. (2014), *Save Everything, Click Here: The Folly of Technological Solutionism*, New York.
- Nemitz, P./Pfeffer, M. (2020), *Prinzip Mensch Macht, Freiheit und Demokratie im Zeitalter der Künstlichen Intelligenz*, Bonn [The English translation will appear in 2021 as *The Human Imperative. Power, Freedom and Democracy in the Age of Artificial Intelligence*]

¹⁸ Floridi (2020), 314.

- Quine, W. V. O. (1975), »On Empirically Equivalent systems of the World«, in: *Erkenntnis*, 9(3), 313–28.
- Rawls, J. (1993), *Political Liberalism*, New York.
- Roth, G. (2001), *Fühlen, Denken, Handeln*, Frankfurt/M.
- Sellars, W. (1963), »Philosophy and the Scientific Image of Man«, reprinted in: *Empiricism and the Philosophy of Mind*, London, 1–40.
- Wittgenstein, L. (1984), *Philosophische Untersuchungen*, in: *Werkausgabe* Bd. I, Frankfurt/M.
- Zuboff, S. (2019), *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, New York.

A Responsible Knowledge Society Within a Colourful World: A Response to Luciano Floridi's New Political Ontology

I.

There are two situations that significantly influenced the line of argumentation in this response to Luciano Floridi's ideas on a »new political ontology for a mature information society«. ¹ One is the, at the time of finishing this article still ongoing, global and integral COVID-crisis, the other is the political crisis in the United States of America marked by two events and their preliminaries and aftermaths: the presidential elections in November 2020 and the violent storming of the Capitol in Washington D.C. on January 6, 2021. Both are part of the huge crisis of modern society and the big challenges it faces, including foremost but not only climate change and biodiversity loss. ² The recent events amplified my own thoughts and also led to a rewriting of some aspects of this response. In general, however, my considerations are deeply impressed by concerns that a parent has about the future of humankind and humanity. In this respect, both, the political situation in the USA and the COVID pandemic, should be regarded not as reasons for current, short-termed problems, but as symptoms of enduring and existential environmental, social, and

¹ I would like to thank Luciano Floridi for his thoughtful and thought provoking essay, Jörg Noller for giving me the opportunity to publish this response, and my wonderful family for granting me some quiet moments for thinking and writing during strange and trying times.

² »The world is facing three existential crises: a climate crisis, an inequality crisis and a crisis in democracy.« (Stiglitz [2019]).

political threats which the Anthropocene has been causing. I agree with Floridi in powerfully addressing these fundamental crises of the modern society, and I second the necessity to rethink the way we see the world after and still amid fundamental changes that have been underway since the beginning of the industrial revolution and reinforced through digitization.³ Yet, I disagree with some of his assessments and some of the background of the solutions he offers. Although the latter seems to be based on integral approaches that I, too, would promote – such as those of an integral ecology expressed by, among others, Bruno Latour, Ernst Ulrich von Weizsäcker, and Pope Francis – the *relata* offered by Floridi should be discussed, partly in agreement, partly in replenishment, in various aspects of his essay. [157] I would like to argue that the world is not secular. It is not binary, neither ontologically nor in terms of an information divide. Technology is not the only solution, but part of the problem and it should be treated as such.⁴ Capitalism is not a compelling prerequisite (markets are). The human condition, together with a new contractual definition of global equality and justice, well-being and welfare beyond materiality and consumption should indeed be the starting-point of any human project.⁵ However, information is a necessity, but not a sufficiency to serve as a core concept for a new ethical and political framework. What is required might not be a new ontology, but a new inter-generational social and environmental contract.⁶

I also would like to add other perspectives on this matter that have already been expressed elsewhere. The response that I give here is probably less coherent than it should be, certainly superficial in many aspects, maybe trivial in others. Overall, it is a collation of more or less loosely coupled ideas, thoughts, and reactions to Luciano Floridi's essay.

³ Göpel (2020), 15.

⁴ Connectivity (and globalization) is supporting the quick spread of the Corona virus, while it is also helping fighting it.

⁵ I strongly support Floridi's plea for establishing a circular economy.

⁶ Cf., for instance, Das Generationen-Manifest: <https://www.generationenmanifest.de/manifest/>.

II.

In the light of the presidency of Donald Trump in the USA that continuously evoked a questioning of both: democratic procedures and standards of political communication, democracy itself appears to be under a threat to be slowly undermined by a populist induced autocratic system of rule. It is the way how Trump and his supporters acted – vastly through digital media and tools of the »information society«, such as broadcasting and communicating in »social« networks – that questions the notion of »information society« in both parts of its verbal expression: information and (democratic) society.

In an understanding of a relational sociology that seems to guide also Floridi's thoughts (I am referring to this later), one might or even needs to ask what (not only who) the actors in this situation are. To understand both crises, it may be helpful to consider ICT not as passive tools to be used by humans respectively the virus or the Corona-disease itself as given facts that we have to react to, but both as collaborators or actors within a complex system. It is not only Trump and his human base responsible for what happened on January 6, it is also the technology, in this particular case (social) media. The most prominent and maybe also prolific of these appears to be Twitter, at least with regard to Trump. Trump has reached out to the »masses« by his abundant broadcasting of messages through Twitter – a service without which he would, he once stated, never had become president.

The phenomenon that massive support is found for the narrative of fraudulent elections (rebuked by more than 60 legal trials and widely characterized as lies), connected with conspiracy theories, and paired with targeting democracy itself [158] (characterized by some as an attempted coup d'état) – be it ideally through agreement, by turning away, by electoral vote, through financial support, or even physically as seen on January 6 – resembles Hannah Arendt's considerations on »The Origins of Totalitarianism« from 1951:

In an ever-changing, incomprehensible world the masses had reached the point where they would, at the same time, believe everything and nothing, think that everything was possible and nothing was true [...]. The totalitarian mass leaders based their propaganda on the correct psychological assumption that, under such conditions, one could make people believe the most fantastic statements one day, and trust that if the next day they were given irrefutable proof of their falsehood, they would take refuge in cynicism; instead of deserting the leaders who had

lied to them, they would protest that they had known all along that the statement was a lie and would admire the leaders for their superior tactical cleverness.⁷

It is striking and frightening that this, widely known and often used, quote from Arendt's seminal work only needs a minor change to be aptly adopted to the situation 70 years after her writing. It appears that, at least in the situation of the USA, if we replace »the masses« by »some (or partisan) masses«, we maintain a valid assessment. Luckily though, as opposed to the totalitarian regimes Arendt referred to, we can state that in the current situation there are other masses and parties who strongly oppose, and at the time of writing and for the time being, the system as a whole seems to be narrowly resilient enough.

Floridi is right in emphasizing on the following: »Politics takes care of the relations that make up and connect things« (332). But this can easily lead to unwanted results: Connecting media that mobilizes a mob with executive power and access to physical forces that a US-president has is most dangerous. If a political framework only emphasises on relations but does not take care of the content, quality, and (ethical) value of these relations, the framework remains technocratic and allows support for totalitarian moves.

We are witnessing what Arendt characterizes as typical means of totalitarian leaders, we are witnessing information as »propaganda« (widely communicated and accepted lies), we are witnessing »fantastic statements«, and we are witnessing »admiration« of particular political leaders. And we are witnessing this in the 21st century – amid the ubiquitous possibilities of being informed, within networked societies, and in an emerging period of what Floridi calls »hyperhistorical« with an »infosphere« as its backbone.⁸ What happened around January 6 is a stark example of political discussion and action in which opinion too often is hardly based on factual information, but in which opinion and wishful thinking replaces facts. Under this light, questions with respect to Floridi's considerations arise: How can we, if we can at all, speak of an »information society« in which »information« should have a certain quality especially a factual basis? And if we can, can this society be »mature«, in the meaning of being ripe or being ready? And if so: ready for what ex[159]actly?

⁷ Arendt (1951), part 3, chapter 11.

⁸ Floridi (2014).

My understanding of a mature society is that of a society that takes responsibility not only for the present, but foremost for the future, for far beyond the scope and life-time of its current members. I would like to add three observations and possible extensions to numbers 6, 7, 8, and 12 of Floridi's ideas: »Democracy is the best way to create and maintain the governance of a polity. [...] The best form of democracy is *representative*. [...] Good democracy allows voters to choose between *real alternatives*. [...] Politics is good when it seeks to take care of the *prosperity* of the *whole society* [...]« (328). First of all, these statements seem to be bound in the present. Floridi does refer to the future in some places (e.g. as a member of the »silent world«; 322), but much stronger emphasis should be put onto it. I would like to argue, following Hans Jonas, that good ethics (and politics) is not only about leaving alternatives for present decisions, but more importantly to make decisions now that leave alternatives and options for the future. Secondly, I wonder why emphasis is put on *representation* as the preferred form of democracy, contrasting it with dictatorship but not with other forms of democracy,⁹ for instance grass-root, in which representation is replenished or replaced by participation. Both are types of relations between the individuals and the polity, but representation is based on delegation (leaving the individual be an individual) while participation is based on the individual's responsibility for the common good. Thirdly, I wonder how e-democracy or other forms of democratic participation empowered (but not replaced) by ICT would come into play here. Because one crucial question of a modernized democracy is how more and better participation will be reached, how all members of the society can be activated to take up their individual responsibility for the common good.

Floridi, without explicitly mentioning it, seems to outline a different line of idea. While the »infosphere« and ICT play an important role in the first part of his essay they do not so in its finale. The vast absence of technology in the concluding 69 ideas is conspicuous. Floridi refers back to his idea of a »human project«. He is right so that this project needs to respect human (as well as environmental) interests, but the ontology he uses is abstract in a way that it would work without humans being in control. The ontology is about politics, but it is not about politicians, about law but not about law makers. This

⁹ A further discussion on »dictatorship« is timely in the context of this controversy as formulations like »eco dictatorship« or »Corona dictatorship« rapidly appear.

might open up the stage for a rational-choice regime of cybernetics (cf. 334) that can (or maybe – due to its complexity – has to) be steered by a machine of Artificial Intelligence with generative models for human behaviour as a replacement for a top-down »legibility« of the society (cf. James C. Scott). This is frightening not only because there cannot be a democracy without democrats, but as there is no reservation about or differentiation between what technology might be capable of and what shall be reserved for the human (cf. Joseph Weizenbaum). This negotiation between man and machine is arising in many aspects of modern society, in particular in economic questions leading to outlines of a »digital capitalism«. [160]

Also a cybernetic democracy would require mass amounts of data. And this again raises the question of potential totalitarian threats. Maybe we are already on our way towards a new regime with new actors and new forms of power. Gramsci's remark that a crisis occurs when the old one is dying and the new one has not fully come to life yet has indeed its validity nowadays (cf. 320). We might be amid an interregnum, a vacuum that the quickest or strongest are about to fill with technological, economical, and executive determination, quicker than a new ethical framework and integral contract for the future can be negotiated let alone implemented. Here, one needs to carefully look into the role of especially the big internet companies (GAFAM being a symbol for them):¹⁰ the way how they put democratic societies under pressure while at the same time their services are being utilized by non-democratic societies (such as China). Particularly one needs to assess how individuals and groups interact with data, and data itself as a powerful actor. To rule assisted by technology and being ruled by technology seem too easily be indistinguishable. Under the light of significant technological developments already in place and also more to be expected, it is important if not existential to consider new ethical frameworks. Floridi is right doing so. Cultural, societal and ethical changes often seem to follow, with delay, those of technology (William Ogburn's theory

¹⁰ As a consequence of the riots on January 6 in Washington D.C. which Trump is accused to have incited, Twitter closed Trump's account and banned him from further usage. In the public discussions that followed this act, it has soon become clear not only how thin the borderline is between the right to free speech and a censorship required to protect free speech (and human lives), but also about the role of a private company like Twitter as either a political actor or even a judge. Cf. e.g. Garton Ash, (2016).

of cultural lag).¹¹ As a consequence, transformations determined by technology potentially threaten values, be it for the good or the bad. But unless new ethical frameworks have not been negotiated in society-at-large, the risk is high that unwanted directions are taken due to the sheer power, not only economically but also politically, and speed of this transformation as seen in digitization (as a »power« in the understanding of an actor as well as in »empowering« relations). Floridi's call for a new framework and new »human projects« is still timely and in good company as such threats against humanity, democracy, or plurality are being addressed widely.¹²

Many would agree with Floridi that there is need to rethink the way we see us as humans and the world. Floridi's critique of the »Aristotelian-Newtonian Ur-philosophy« is a thoughtful starting point for this (that might comply with ideas of relational sociologists, see below). Another exemplary one is that of Maja Göpel's *Unsere Welt neu denken* in which she questions axiomatic, yet often misinterpreted, foundations of our economic systems such as those of Adam Smith, David Ricardo, and Charles Darwin. It is certainly worth bringing those approaches together, especially as criteria such as prosperity or well-being should be discussed beyond a GDP-based point of view (cf. 330).¹³

III.

In the wider context of the discussion, Floridi states that »we do not have a human project for the digital age« (320). Maybe we have not implemented such a project or put it into concerted action yet. But there are bookshelves full of ideas.¹⁴ Maybe the strongest global voice in this direction has recently been Pope Francis with his two

¹¹ That generally leaves out that technological development is culture and that it is interwoven in cultural development. With regard to digitization and especially Artificial Intelligence, speed of development seems to play a dominant role and makes a case for reconsidering Ogburn's theory.

¹² Such as Nemitz/Pfeffer (2020), Hofstetter (2016), Zuboff (2019), or Runciman (2019).

¹³ Cf. e.g. Stiglitz/Fitoussi/Durand (2019).

¹⁴ Such as von Weizsäcker/Lovins/Lovins (1997), von Weizsäcker/Wijkman (2018), both reports to the Club of Rome, Göpel (2016), or the Flagship Reports of the WBGU – German Advisory Council on Global Change (2011, 2019).

encyclicals *Laudato Si'. On Care for Our Common Home*¹⁵ (2015) and *Fratelli Tutti. On Fraternity and Social Friendship*¹⁶ (2020). Especially the latter serves as a point of reference for parts of this essay. The title of its third chapter *Envisaging and Engendering an Open World* may indicate its closeness to the questions dealt with here.

Mankind itself certainly is the source of our problems. But mankind and its interweaving with its natural environment is far too complex that just one single cause exists. And as the reasons for our problems are not mono-causal, nor will the solutions be mono-disciplinary. This is even more so if the world is constantly asking for easy explanations and causation (that especially populists deliver) instead of critically questioning larger contexts. The handling of the COVID-crisis shows this clearly. The crisis of our modern society will hardly be solved by information technology for the same reason as the climate crisis will not be solved by geo-engineering. We need to go into the roots and foundations of humanity, the human condition, and start from there. Any political or ethical framework that does not do that is doomed to fail.

Information is a necessary but not sufficient condition. There are plenty of theories on information, and Luciano Floridi himself made a significant contribution to it. However, while he characterizes information as being a »member of the same conceptual family« as knowledge,¹⁷ many other theories make a stronger distinction in between the triad of data, information, and knowledge (sometimes extended even to the fourth category of »wisdom«). All three relate to each other, sometimes characterized as being 0-, 1-, and 2-dimensional respectively, or as a pyramid in which one builds upon the other (e.g. information as semantic data, knowledge as contextualized and applied information). It is clear that it strongly depends on a subjective viewpoint whether something is regarded as data, as information, or as knowledge. But this categorization is important because, while it may be that information alone leads to action, one cannot assure that it leads to *good* action. It is [162] only the wider context of knowledge that does so. Take the following example: »It is raining« (information); »When it rains, I get wet. When I am wet, I get cold. When I am cold, I am less resilient for getting

¹⁵ Francis (2015).

¹⁶ Francis (2020).

¹⁷ Floridi (2010), 51.

sick« (knowledge); »I don't want to be sick« (attitude); »Hence, I take an umbrella, or I stay inside« (consequential action). Hence, for the right action, the right context such as experience (personal or societal) as well as the right attitude is required.¹⁸ The base of attitude is a knowledge itself, a know-why, an orientating knowledge (besides the know-whats and know-hows). As orientating knowledge is based on (societal) experience which underlines the particular role of history and historical consciousness in the context of this discussion. (Good) policy requires knowledge, too. From the viewpoint of an acting politician, a writing of a political scientist might be information only, and only when combined with other information, attitudes and agendas and with the aim of a political action (e.g. to follow the human project, not necessarily retention of power), it potentially leads to good decisions.¹⁹

Information is carried by data. Data is amassed, but data itself is hardly objective. Data is not dogmatically *given* as the Latin origin of the word suggests, it is *taken* within specific contexts and under the assumption of specific theories, but also too often carelessly.²⁰ Information alone as a conceptual point of reference for a human project is insufficient also because it is disconnected not only from will and attitude, but from the human condition. Although technology might be a universal constant of the latter, its very core is the expectation of death. However, I am not *informed* that I am going to die someday, I *know* it. This is a huge difference. A mature society needs to be a knowledge society. Maybe Floridi is right, focusing on the middle term of the triad data – information – knowledge, for the time being. Maybe we are an information society. But if we want to be mature and face and solve the problems that are ahead, we have to become more. It might be that Floridi's »translational ideas« (307) refer to a similar conceptualization.²¹ There is a particularly important institution of and for the (responsible) human society, existential for

¹⁸ Maybe someone takes an umbrella, just because he does not like to get wet.

¹⁹ »See – judge – act« is a core principle also of Laudato Si'.

²⁰ Cf. Johanna Drucker's concept of *capta*: Drucker (2011).

²¹ In the general context of digitality (or Floridi's »infosphere«), I have characterized my own area of research, that of the so-called Digital Humanities as a scholarly discipline (or practice) that not only *transfers* ideas from ICT into the humanities, but also *transforms* the traditional disciplines in a way that it enables them to »maturely« deal with digitality of their own benefits, to master ICT and not to be mastered by it. Digital Humanities is an example for translation between different areas; yet, whether it is bidirectional remains to be seen. Cf. Rehbein (2018).

its survival: education. Its task is to bring knowledge to the people, not information. Knowledge that encompasses the competence to critically assess information, methodologically as a know-how and ethically as a know-why, based on a framework of responsibility for the future. The aforementioned historical dimension is an important part of it. We have to become a broadly and deeply educated knowledge society. [163]

IV.

Floridi describes the political space of the information society as a network and characterizes this network as »a logical space, not a physical one, in which distances are measured with metrics that are not Euclidean« (317). The emphasis on this is surprising as I think that political geography has never been thought of being Euclidean. Two people might be situated on different shores of a river, a Euclidean distance of maybe 100 metres, but as the river is impassable, a long detour has to be taken in order to cross the river at the next ford. The same applies for many other geographical features as well as for man-made efforts to reduce (e.g. build bridges or construct ferry boats) or increase (e.g. build fortresses or other obstacles) time and effort it takes to get from A to B.

Distances are historical, too. Geographically, the Strait of Gibraltar is only a few miles wide which can be regarded more or less as a constant in the context of history. But the time and effort it takes to cross it, by whom and what purpose it is allowed to do so, varies, and is again a question of politics and has been so since man was capable and willing to actively control geography. In the 20th century, while political distances have been cemented on the one hand (e.g. for migrants), they have dramatically been shortened on the other in a way that the Global North can easily externalize its problems to the rest of the world.²² Indeed there are good reasons to come to the conclusion that putting values and not geographic space into focus of the EU, that a country like Canada might be a better fit than, say, Turkey (cf. the Cyprus case). This viewpoint however forgets about the long-term history of Canada, and the Americas at all, which is not

²² Lessenich (2016).

European, but aboriginal First-Nations, or with other words: it does not take into account that these (geographical) lands had once been conquered violently by Europeans. Infraethics need to avoid becoming a new form of colonialism as well as its universal claim needs to be analysed under the light of a very diverse world. One crucial question is whether global governance is possible without a global government. As the latter in form of a *Weltstaat* seems to be both unattainable and unwanted, one might look into the conceptualization of *Weltinnenpolitik* as first proposed by Carl Friedrich von Weizsäcker. As a strengthening of multilateral relations²³ is crucial for such an approach, it should correspond with Floridi's ideas.²⁴ [164]

Secondly, in historical perspective, rule has not always and not exclusively been thought as a geographical space in which power was executed. Especially in the Middle Ages of Central Europe a territorial state did not exist a for long time. Rule and political power were defined basically by influence over people (or sub-ordinate rulers) not over geographical space or territory. The mediaeval itinerant king was a networker in that sense; in order to maintain his power, he needed to be present personally or indirectly through some sort of medium. Research in mediaeval studies emphasizes the importance of personal bindings for politics above all others.²⁵ The »zone of influence« of mediaeval rule was not geographical, and »the spatiality of social relations, including those of strengths« (317) has long existed and is

²³ Cf. Weizsäcker (2021).

²⁴ There is another aspect here that asks for further discussion: the juxtaposition of the European Union as a geographic space versus a union of values. Firstly, the EU already has this set of values (codified in the Treaty of the European Union, especially article 2: »The Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights [...]«). Secondly, Europe is not a geographic, geologic, natural unit, but part of the continent of Eurasia. Regarding Cyprus (as political unit(s) or as an island?) as part of Asia (because it is located East of the Bosphorus) already is political because the geographical argument itself is a political one. Here, too, temporality has to be taken into account. If we look at the Roman Empire, e.g. 4th century A.D., we can see that it completely surrounds the Mediterranean Sea, covering territory in three nowadays continents: Europe, Asia, and Africa, with the Mediterranean Sea, the Roman *mare nostrum* in its centre. The sea as a geographical fact is immutable (at least during the span of history). But the question whether the sea is unifying or separating is a political question and that is temporal. However, neither (written) shared values nor geographic neighbourhood have made possible joint politics to overcome the COVID-crisis, let alone the migrant crisis, and the outlook for the climate crisis makes one thinking.

²⁵ Cf. e.g. the works by Gerd Althoff or Hagen Keller.

hardly a phenomenon of the information age only.²⁶ One might think the way how the Global North has control over the South also along these lines.

V.

Floridi is pleading for scholarly disciplines, »economics, jurisprudence, sociology, and [...] politics, [to] become relational sciences of the links that make up and connect the *relata*« and to include in these links »not just people, but all things, natural and constructed, and therefore their environments and ecosystems« (316). I agree, but I also wonder whether there have not yet been already significant examples of research towards this direction. Especially sociology has developed and established the relational concept for a couple of decades by Harrison White, Charles Tilly, and Mustafa Emirbayer, to name a few, based on earlier ideas. It »is not the concept of ›thing‹, but that of ›relation‹ – which refers to what constitutes all things and connects them among themselves – that can play a foundational role in the political thought of the twenty-first century« (315). Floridi's conclusion seems particularly to resemble Bruno Latour's (and others') actor-network theory (ANT) developed in the area of Science and Technology Studies. ANT's approach integrates human and non-human, physical things and ideas, discourses etc. within the same conceptual or ontological framework and seem to anticipate Floridi's »semantic equipotency« (315) or »multiagent system« (326), as well as the form of democracy he proposes (»all related ›things‹, that is, the human, natural and artificial *relata*«, 328).

Floridi's »Green and Blue« seems to have its predecessor in Latour's construction of systems that joins politics, science, technology, and nature, that combines Rousseau's social contract and Serres's natural contract, that reworks our thinking by [165] abandoning the dichotomy between culture and nature,²⁷ and that can be read as a

²⁶ A further consideration as a side-note, one might think of big internet companies (GAFAM) as (new) (political) actors on the scene that have the capability of ruling over people and economies in a potentially unprecedented quality and are gaining more power than governments. Here, the »logical space« of the ubiquitous ICT might indeed lead to a full coverage of geographical space.

²⁷ Latour (1993).

political ecology. Puzzling, however, and contradictory to the rest of his argumentation appears Floridi's classification of the world: »We know that things are discrete and can easily be grouped in separate sets« (316). In an example, he distinguishes French from Italian citizens, but leaves out those with unclear status and does not handle the not untypical situation that information is missing or insufficient for a classification. It is not only in quantum mechanics and Heisenberg's uncertainty principle to illustrate cases in which classification is not simple, not binary, or even not possible.²⁸ The symbiosis between fungus and tree or the platypus as a mammal that shares properties with reptiles (egg-laying) might serve as examples as well as ongoing discussions on human gender. Most of the world is considered to be »analogue«, perceived as a continuous variable rather than discrete objects. It is only through digitization (and its predecessors) that we have to perceive the world as objects in distinguishable sets of discrete objects. Like technical analog-digital conversion, philosophical ontologies, too, can be considered as acts of modelling that are subject to reduction and disputable attribution and that raise thought puzzles and dilemmas such as those of potential multiple identities, illustrated for example in the ship of Theseus paradox.

VI.

I argued earlier that the future should play a primary role in any ethical framework. In addition, guidance by history should be sought as well, to avoid an impression of a dangerous »presentism« (Douglas Rushkoff). In historical research, Wolfgang Reinhard explained in *Freunde und Kreaturen. »Verflechtung« als Konzept zur Erforschung historischer Führungsgruppen*²⁹ that European politics (around 1600) cannot be understood without knowledge of an ever-changing tangle (German: *Verflechtung*) of relations. Niall Ferguson's *The Square and The Tower*³⁰ discusses rule and power based on network analyses in which the tower is a metaphor for a hierarchical, vertical rule

²⁸ A recent anthology tries to unite quantum theory with »Geist und Materie« in order to outline a new way to think our world with similar questions as in this discussion: Mann/Mann (2021).

²⁹ Reinhard (1979).

³⁰ Ferguson (2017).

while the square symbolizes a horizontal way of interaction. While both, Reinhard and Ferguson focus on human beings as political actors, there are historical works that go beyond. I would like to mention Arnold Toynbee's integral and universal approaches in *A Study of History*³¹ (1934–1961) and *Mankind and Mother Earth*³² (posthumous, 1976). Recently, Kyle Harper's *The Fate of Rome*³³ let the decline of the Roman Empire be understood as a complex interplay of humans, viruses, and climate (changes). While the latter two use relational approaches to understand political actions of the past, Reinhard and Ferguson show that relational approaches have long been used to do politics also.³⁴ There might be a significant difference, though, to which Floridi refers. While politicians historically have often thought politics relationally, they have not done so comprehensively. Relations as such build by mediaeval rulers (see above) focussed on chosen key people, but not among people in general let alone between political power and other aspects of society and beyond. Here, a shift in our thinking is indeed a necessity.

I would also add in this context, that science (in the German understanding of *Wissenschaft*, including arts, humanities and social science) as a system itself should become more relational. Relational is here meant in a sense that understanding and improving the world (307) is a relational matter not only within the different disciplines, but inclusively among them – as integral *Wissenschaft* – and, even more so and equally importantly, together with all societal areas and environment – as integral ecology. This seems to correspond to Latour's thoughts, but it is also expressed convincingly and more recently by von Weizsäcker and Pope Francis (see above).

It is striking that Francis' *Fratelli Tutti* also puts a strong emphasis on relations: »I cannot know myself apart from a broader network

³¹ Toynbee (1934–1961).

³² Toynbee (1976).

³³ Harper (2017).

³⁴ Further research might be required to historicize the concept of relation itself. While it is undisputed that pre-modern societies were constructed upon different concepts and understandings than modern societies – such as that of a family or of history and time, conceptual changes that happened in Europe roughly between 1750 and 1850, a period characterized by Reinhart Koselleck as *Sattelzeit* and that discriminate the pre-modern from the modern – it may well be that the concept of *relations* in politics remains important throughout history but changes its meaning.

of relationships³⁵. He takes up a viewpoint that not only highlights one's care for the other, not only considers a society in which the »We« is stronger than the sum of its individuals³⁶, nor exclusively that of a »global society« which »is not the sum total of different countries, but rather the communion that exists among them«³⁷, or one in which there is an »increasing number of interconnections and communications«³⁸ and »growing interdependence and globalization«³⁹. In addition and matching his integral thinking, relations, including actions, are seen as constitutive for societal networks:

What is needed is a model of social, political and economic participation ›that can include popular movements and invigorate local, national and international governing structures with that torrent of moral energy that springs from including the excluded in the building of a common destiny‹, while also ensuring that ›these experiences of solidarity which grow up from below, from the subsoil of the planet – can come together, be more coordinated, keep on meeting one another‹⁴⁰ [167]

VII.

In a concluding thought, Floridi's divide between those who participate in the infosphere and those who do not (yet?) do so, leaves open a couple of questions: Is this, if it exists, the decisive cleavage? And is it the only one? And if so: On which side of the divide is one happier? For Floridi's human project, the latter seems to be unequivocal as there is a moralized technological determination: »those on the wrong side of the digital divide« (335). But happiness might be gained elsewhere. There are those who live (naturally and more like humans) in the subaltern »Savage Reservation« in Aldous Huxley's *Brave New World*; those who deny using or are about to remove from their bodies the grain technology in the episode *The Entire History of You* of Charlie Brooker's *Black Mirror*; or maybe those who escape

³⁵ Francis (2020), 89.

³⁶ Francis (2020), 77.

³⁷ Francis (2020), 126, 149.

³⁸ Francis (2020), 96.

³⁹ Francis (2020), 262.

⁴⁰ Francis (2020), 169.

The Matrix. These fictional examples deliberately draw borderlines towards a dystopian transcendence of the human from its natural rootage through external (yet man-made technological invention) violence (*The Matrix*) or induced transformation (*Brave New World*, *Black Mirror*). I discuss these here symbolically, not as a Luddite (we are either way far beyond the possibility of cancelling digitization, but foremost: technology certainly is one tool for well-being), but to illustrate that mankind might be led onto a dangerous path when treating digitization as a moralized divide between good and bad (Floridi's marking of the »other side« as »wrong«). Inclusion should be sought first, but on basis of a diverse and pluralistic zone not along a clearly marked borderline that risks to turn into an ideology or religion which Floridi wants to avoid (322). Or taking into account the speed of technologically induced transformation, the solution should not only be – speaking with Maja Göpel – to leave none behind, but also not to allow anyone to move away.⁴¹

There is a joke in which a man wanders about through wasteland, left alone. Finally, he reaches a river, and on the opposite shore, there is a hut and another human being. Civilization, he thinks. »How«, he shouts, »can I get to the other side of the river?« After a while, the man on the other side replies: »But you *are* on the other side.« In the newspaper article which I got this joke from, Alard von Kittlitz explains that the man finally and desperately finds someone, but regrettably that someone is an idiot.⁴² I read the story differently, though, in two versions of a »stay where you are«: One is the excluding othering: stay where you belong (here is mine). The second version: stay where you are happier (here is even worse).

Either of the different interpretations is capable of drawing a picture of the information society: not educated or knowing, othering and filter bubbles, or dystopia; the man on the »other« side as a (globalized) villager, but not a cosmopolitan. One of the biggest problems for any political agenda is that we are all in the same storm, but not in the same boat nor even in the same type of boats or level of resilience. A huge part of mankind does not even have a boat at all, but it is there where consequences of the anthropocenic world-view hit first and hardest. Although we do have sufficient information about the crises such as global warm[168]ing and global injustice, we do not

⁴¹ Göpel (2020), 175.

⁴² von Kittlitz (2020).

yet have the right attitude to jointly face and address the challenges. Globalization (understood as a shrinking of space and time) and also a global infosphere can help or might even be a necessity, but there are phenomena such as the simultaneity of the non-simultaneous as well to be taken into account and to be addressed as it is important to accept differences, not as divides, but as pluralistic views of the same: »Without encountering and relating to differences, it is hard to achieve a clear and complete understanding even of ourselves and of our native land.«⁴³.

Humanity, in an integral ecology thought together with the environment and the planetary boundaries should be put into the centre of all considerations and form the basis for a new contract: »To see things in this way brings the joyful realization that no one people, culture or individual can achieve everything on its own: to attain fulfilment in life we need others. An awareness of our own limitations and incompleteness, far from being a threat, becomes the key to envisaging and pursuing a common project.«⁴⁴.

Bibliography

- Arendt, H. (1951), *The Origins of Totalitarianism*, New York.
- Drucker, J. (2011), »Humanities Approaches to Graphical Display«, in: *Digital Humanities Quarterly* 5(1).
- European Union (2012), »Consolidated Version of the Treaty of the European Union«, in: *Official Journal of the European Union* C 326/1, 26 October 2012, 13–45.
- Ferguson, N. (2017), *The Square and the Tower. Networks, Hierarchies and the Struggle for Global Power*, London.
- Floridi, L. (2010), *Information. A Very Short Introduction*, Oxford.
- (2014), *The Fourth Revolution. How the Infosphere is Reshaping Human Reality*, Oxford.
- Francis (2015), *Laudato Si. On Care for Our Common Home*, Vatican City.
- (2020), *Fratelli Tutti. On Fraternity and Social Friendship*, Vatican City.
- Garton Ash, T. (2016), *Free Speech. Ten Principles for a Connected World*. New Haven/London.
- Göpel, M. (2016), *The Great Mindshift. How a New Economic Paradigm and Sustainability Transformations Go Hand in Hand*, Cham.
- (2020), *Unsere Welt neu denken. Eine Einladung*, Berlin.

⁴³ Francis (2020), 147.

⁴⁴ Francis (2020), 150.

- Harper, K. (2017), *The Fate of Rome. Climate, Disease, and the End of an Empire*, Princeton/Oxford.
- Hofstetter, Y. (2016), *Das Ende der Demokratie. Wie die künstliche Intelligenz die Politik übernimmt und uns entmündigt*, München.
- von Kittlitz, A. (2020), »Die andere Fluss-Seite. Mal sehen, ob das Jahr 2021 wirklich so toll wird, wie alle sagen«, in: *Die Zeit* 1/2021, 30 Dec 2020, available online at <https://www.zeit.de/2021/01/2021-hoffnung-versprechen-coronavirus-pandemie>.
- Latour, B. (1993), *We Have Never Been Modern*, Cambridge (MA).
- Lessenich, S. (2016): *Neben uns die Sintflut. Die Externalisierungsgesellschaft und ihr Preis*. Lizenzausgabe. Bonn: bpb Bundeszentrale für politische Bildung.
- Nemitz, P./Pfeffer, M. (2020), *Prinzip Mensch. Macht, Freiheit und Demokratie im Zeitalter der Künstlichen Intelligenz*, Bonn.
- Mann, F./Mann, C. (Hg.) (2021), *Im Lichte der Quanten. Konsequenzen eines neuen Weltbilds*, Darmstadt.
- Rehbein, M. (2018), »L'historien de demain sera programmeur ou il ne sera pas. (Digitale) Geschichtswissenschaften heute und morgen«, in: *Digital Classics Online* 4(1), 23–43. [169]
- Reinhard, W. (1979), *Freunde und Kreaturen. »Verflechtung« als Konzept zur Erforschung historischer Führungsgruppen. Römische Oligarchie um 1600*, München.
- Runciman, D. (2019), *How Democracy Ends*, London.
- Stiglitz, J. (2019), »It's time to retire metrics like GDP. They don't measure everything that matters«, in: *The Guardian*, 24 Nov 2019s.
- /Fitoussi, J.-P./Durand, M. (2019), *Measuring What Counts. The Global Movement for Well-Being*, New York/London.
- Toynbee, A. (1934–1961), *A Study of History*, 12 vol., London.
- (1976), *Mankind and Mother Earth. A Narrative History of the World*, New York.
- WBGU – German Advisory Council on Global Change (2011), *World in Transition. A Social Contract for Sustainability. Flagship Report*, Berlin.
- (2019), *Towards our Common Digital Future. Flagship Report*, Berlin.
- Von Weizsäcker, E. (2021), »Aufklärung in neuer Richtung«, in: F. Mann/C. Mann (Hgg.): *Im Lichte der Quanten. Konsequenzen eines neuen Weltbilds*, Darmstadt, 287–305.
- /Lovins, Amory B./Lovins, L. Hunter (1997), *Factor Four. Doubling Wealth, Halving Resource Use*, London.
- /Wijkman, Anders (2018), *Come On! Capitalism, Short-termism, Population and the Destruction of the Planet*, New York.
- Zuboff, S. (2019), *The Age of Surveillance Capitalism. The Fight for a Human Future at the New Frontier of Power*, New York.

Replies to Broy, Gabriel, Grunwald, Hagengruber, Kriebitz, Lütge, Max, Misselhorn, and Rehbein

Preface to my replies

I am most grateful to Thomas Buchheim, Jörg Noller, the editorial team, and the publisher of the *Philosophisches Jahrbuch* for the remarkable honour of being invited to contribute to the »Jahrbuch-Kontroverse« series. The scholarly attention paid by colleagues to one's own work is the greatest gift one may receive in academia, even more so these days, when we seem to have increasingly less time to study, think, and dialogue. I have replied to the comments in the same alphabetic order in which they appear in the publication. Here, I only wish to add three remarks concerning all of them.

The first is about a regret. I failed to inform readers of the article that it is only an abridged version (ca. 17,000 words) of a book (ca. 65,000 words), already published in Italian (Floridi 2020b) and forthcoming in English in 2022, entitled: *The Green and the Blue – Naïve ideas to improve politics*. As it becomes clearer from the comments and my replies, I believe that many of the justified requests for clarifications, further justifications, terminological definitions and so forth would have been formulated differently if I had warned the colleagues about the nature of the article. The book is written in the same »naïve style« but does one crucial thing that the article is missing: it presents 20 chapters that provide the framework within which the last chapter, the one containing 100 theses (the article provides »only« 69), may be understood more easily. I apologise.

The second remark concerns my gratitude towards the colleagues who took the time to comment on the article. In many cases, the questions, criticisms, and indeed even the misunderstandings contained in the comments will be precious to improve the text of the English

version, which will be in any case further expanded with respect to the Italian edition (I need to add at least one more chapter on digital sovereignty, already outlined here (Floridi 2020a)).

The last remark concerns a commitment: I know that I need to study much better Arendt, Buber, Jonas, and Levinas. I promise to do my homework before the English edition is published. [379]

Reply to Manfred Broy

If you could look at my copy of Broy's comments, you would find way too many passages highlighted. Not just because we agree on many fundamental issues – we do – but because, on many of these issues, Broy shares the rights questions and the insightful comments required to move further and develop our understanding more deeply. The highlighted passages are places where he is asking for more because more is actually needed. In this reply, I shall limit myself to commenting on only a few such passages, but I recommend reading his text carefully and doing the homework he is rightly suggesting.

Broy is correct that some of the conceptual changes we experience today – in particular, think of a shift from a substantialist to a relational ontology – predate the digital revolution:

Obviously, these changes have started more than 100 years ago, 20 years before Zuse built the first programmable computer. At this time, there was nothing what could be called the digital or digital natives which are today much more related to networks, relations and to sets, and which influence and form the structure of our society. There seems to be a feedback process going on here between changes in the society and those caused by the digital – all run by the »Blue« and in no way by the »Green«. (85)

He is also right in stressing that there is a feedback mechanism in place. I would only add that there is also a mechanism of »realisation« (Floridi 2018): the digital revolution has catalysed, highlighted, and brought into a shared narrative conceptual changes that have long historical roots. Think of the Copernican revolution and its impact on how we conceptualised ourselves, no longer at the centre of the universe. Of course, we were never at the centre of the universe; we just did not know it. The Copernican revolution was the turning point, as it made us scientifically aware of such a peripheral position,

but it was not unprecedented, nor did it get immediate acceptance. The re-conceptualisations brought about by the digital revolution are comparably deep – this is why I have spoken of a fourth revolution, with Turing coming after Copernicus, Darwin and Freud (Floridi 2014) – but they have long historical roots. If anything, the digital revolution has made us vividly and widely aware of such changes, bringing them to cultural maturity and visibility.

Broy is also correct to call attention to China. I could not agree more. There was no space to do so in the article, but I have sought to analyse China's policies elsewhere (Roberts et al. 2021). Like many people, I am concerned by the increasing economic and military power acquired by this autocracy, but I am even more worried by the cultural influence associated with such a power. As Europeans, it would be terrible to jump out of the frying pan of Americanism into the fire of »China-ism«. This leads me to the last comment I wish to share here. Broy rightly highlights that there is not, and indeed there should not be, only one (totalitarian, I would add) human project. Our ethical perspectives can differ significantly and should not be eradicated in the name of »one planet – one people – one human project«. We still have a living memory of the tragic horrors that this way of thinking caused in Europe last century. This is why I argued elsewhere that we should reconsider the [380] modern foundation of our liberal societies in terms of tolerance first and then justice, rather than justice-only (Floridi 2015, 2016d). However, we should also recall that there is much about which we all agree, think for example of the UN Sustainable Development Goals; that there is much on which we are not ready to compromise, and rightly so, think of the protection of human dignity and fundamental human rights, not negotiable, no matter what culture, place, or time we are considering. Pluralism is not relativism; this becomes clear if one looks at design practices. If you search on Google for images of »chair«, you will see that human ingenuity has created a vast number of artefacts, all counting as chairs. Yet all these artefacts have fundamental elements that they share: they are pieces of furniture meant to be for only one person to sit on (if more than one person, then they start looking like a sofa), they have a back (if they do not they are stools), they have some kind of legs (usually but not necessarily four), they typically do not have side support for a person's arms (when they do they are called armchairs), they are not meant to support your legs (those are chaise longue). We

recognise them everywhere, even if they come in a wide variety of styles, materials, functions, sizes, and so forth. Broy remarks that:

Luciano Floridi is right when he complains about the absence of a human project in our information society – also in Europe. In fact, we do not have a human project for the digital age. (90)

The human project I am talking about is like a chair: there can be an infinite yet bounded number of ways (think of real numbers between 1 and 2) of designing and implementing it, some of which are more successful than others, but just because we are aware of this pluralism, we should not fall into the trap of thinking that it has no boundaries and anything goes: a lamp or a bed are not chairs as a matter of fact, and some poorly designed chairs (for example, too fragile, too expensive, too ugly, too uncomfortable) are chairs nobody wishes to have or use. The same holds true of the variety of human projects we encounter in the history of humanity. So, if I can abuse the analogy, the question I have sought to address in the article and the much longer book is: what is the right chair we need to design and build today? The answer I have defended is: the Green and the Blue. If you think of it, it really is quite obvious.

Reply to Markus Gabriel

I found Gabriel's comment very useful. It shows me where I failed to communicate, and hence being convincing. Therefore, in this reply, I shall try to ameliorate the situation.

Section one provides some justified scolding. I do not refer to some authors, I miss some references, I should have built more links with existing lines of thinking. To my justification, let me say that in this article (and in the book it comes from) I am not interested in the history of ideas. One may argue that I should, and I accept that. But whether it is a feature (for me) or a bug (for Gabriel), the absence of any refer[381]ence to Bruno Latour, for example, should be seen as meant. It is not an oversight. I know, of course, about actor-network theory. I read more essays by my students about it every year than I wish to remember. I meant to avoid it. So, following the comment about the

astonishing absence of references to already existing relational contemporary social and political ontologies (96)

the question is why I decided not to use such references. There is no space here – nor do I believe it is interesting – to expand on this, but let me just point to a previous comment:

Despite his recourse to the very idea of a »human project for the digital age«, Floridi seems to be ensnared by a certain post-modern and posthumanist siren song that is a constitutive part of the problem Floridi wants to overcome. (95)

I spent half of my academic life as an analytic philosopher, doing mostly logic, epistemology, and studying the sort of philosophers and philosophies that consider »post-modern« and »post-humanist«, with or without the hyphen (you never know whether the hyphen is meaningful), insulting epithets. I am not proud of it, I repented, I moved to a department of social science to abandon my old faith and try to open my mind, I no longer consider myself an analytic philosopher, but I hope I may be forgiven when conceptual confusion still triggers in me a natural reaction. It is precisely because I stay away from such »post-modernist« and »post-humanist« ways of thinking that I do not link my line of reasoning to them, Latour included. It is a matter of simple coherence (I shall say something more about *post-anything* labels and why I do not use them in my reply to Hagengruber). As for the rest of section one, since I agree with the objections, I must clarify that they are directed to someone else's position, not mine. All my references to mathematics and physics are meant to be mere illustration, not methodological applications or import. In other words, I agree with the following passage:

I have a series of objections against the idea of grounding a transformation in (social and political) ontology on an analogy with mathematics and natural science, for the objects of (social and political) science cannot be meaningfully modelled in terms of natural science. There is no social vector space and category theory is not capable of getting the kind of qualitative experience into view that is constitutive of »the participant stand-point«, to invoke Strawson's felicitous formulation. (96 f.)

So, this is where I failed to communicate. To my defence, I can only add that I thought it was too obvious to state it. Who in his right mind could believe that »objects of (social and political) science could be meaningfully modelled in terms of natural science« I do not know, certainly not me. I have never been convinced even by Leibniz's *calculemus* or any Carnapian approach, not even when I was

an analytic philosopher, let alone now. So, I am glad to agree with the objections because they are almost all correct but irrelevant. »Almost all« because there is, however, one that is relevant, but luckily, it is incorrect, because based on lack of knowledge of the methodology it discusses: [382]

If there is a right and a wrong level of abstraction, in what does the rightness consist? It cannot be reduced to »a way of describing the world«, as there are indefinitely many such ways of describing the world. There has to be some set of criteria that help us to decide which of the available modes of description better capture how things really are. (97)

It is well known that the method of Levels of Abstraction (LoAs, the method can be somewhat technical, but for a simple introduction see [Floridi 2016c]) avoids relativism by adding a crucial element missed by the objection: the purpose for which a specific LoA is adopted. Imagine describing a building. You can describe it in various ways, depending on the chosen observables (an unfortunate misname, they are just conceptual variables, nothing to do with »observation«) and hence the LoA adopted: architectural, economic, historical, psychological, social, etc. The objection seems to imply that any LoA will do and hence that one cannot evaluate or judge which issuing description of the system (i.e., which model) is preferable. This is correct, but only if one misses the point that an LoA models a system (the building, in our example) for a purpose, and it is the purpose that enables the comparison and the evaluation. Consider the following example. If Alice's purpose is to know whether something is the same building in terms of its function, the right LoA may indicate that it used to be a hospital, but it is now a school, so the answer is no, it is not the same building, and furthermore an LoA that models the building in terms of its economic value would be incorrect (it would not address the purpose). But if Alice's purpose is to know whether it is the same building in terms of location, e.g., because two people referred to it to give her some instructions on how to get somewhere, then the answer is obviously yes, the two people were referring to the same building, while the economic LoA would still remain incorrect. So LoAs can be compared, in terms of being more or less correct, depending on the purpose, and these can be more or less fitting depending on the questions one is addressing. The real debate is about what the correct LoA is, *given a purpose*, not whether an LoA is possible or not. The temptation is to ask absolute questions, without asking why (what for,

for what purpose) the question is being asked in the first place. But absolute questions, that is, questions devoid of any indication of why they are asked in the first place and hence what LoA would in principle adequately answer them, should be resisted because they only lead to an absolute mess. Theseus' ship, with some pieces changed, is not the same ship if it is a collector asking, but it is the same ship if it is the taxman asking. The reply, that we need to ask the question at the ontological level, is precisely why I insist, as evident in the article and in all my writings, that I would rather maintain some Kantian, sensible approach and hence an epistemological and not an ontological interpretation of the method of abstraction. In philosophy of science, this leads to an information-based structural realism (Floridi 2008) that is »ontologically committed« (in Quine's sense) only in terms of epistemological choices. Of course, anybody is welcome to wonder what the ultimate answers about the intrinsic ontology of *noumena* may be, but as far as I am concerned, I would rather avoid what I believe to be a nonsensical waste of time.

Let me move to another failure in my communication. I think this question well summarises it: [383]

I wonder why Floridi does not extend his dialectical operation (political abstention is itself a political act etc.) to his own decisions? (100)

I think I did. I also thought that the point I was making was not very controversial, historically speaking, so clearly something went wrong. Let me try again: in general (history and religious texts and practices provide the evidence), even the best kind of religion tends (of course not always, not everywhere) to support a single, often intolerant view of what that human project is; whereas the best kind of ethics tends (of course not always, not everywhere) to be tolerant (ethics texts and practices provide the evidence). If religion wins the battle for hearts and minds, ethics is often at risk (consider just LGBTQ+ rights). One only needs to check what happens in the US or in Iran. If ethics wins, there may be a better chance that religion may be tolerated. Perhaps I am too simple-minded, but it is the dialectic of tolerance that I had in mind. If I recall correctly, it is the reason why John Locke said that one should be tolerant towards everybody but the Catholics because they are so intolerant that, if they were tolerated, they would take over, and that would be the end of the tolerant people. This leads to a famous problem, called at different times the paradox (Popper) or dilemma (Rawls) of toleration: how far is too far? This is not the place

to discuss it, but the reader interested in its analysis and a possible way of resolving it may wish to check (Floridi 2015). To summarise, I do not see the relation between ethics and religion as an opposition because the former can support the latter. In a completely different context, when I was invited by the *Osservatore Romano* (the daily newspaper of Vatican City State) to comment on »Fratelli tutti«, the third encyclical of Pope Francis, I tried to explain this by stressing that – concerning the three theological virtues: faith, hope, and charity (love) – believers, agnostics and atheists can still agree on charity, which can and should unite all of them, even if they hold irreconcilable views about the first two. So, no opposition, but tolerant inclusion of religion by ethics, is what I meant to express.

I better stop here. There are too many other misunderstandings to list them, like the view that I support some EU-centrism (I thought it was clear that I was speaking of an expectation of leadership by example: as in other contexts, the EU should prove its commitments to fundamental values by showing it in practice), or like the suggestion that I may be arguing for the inclusion or expulsion of EU member states depending on political orientations (of course this would be insane, I thought it was clear that I was speaking of some necessary flexibility linked to the most severe violations of human rights, toleration is not without limits, see discussion above, the EU should not be a club one can never be asked to leave no matter what atrocities one commits). I still hope that a more careful and charitable reader will avoid these misunderstandings by reading what I have written. However, I took full responsibility for these shortcomings. The fact that Gabriel's comment is littered with so many misunderstandings means that I inadvertently failed to convey my ideas in a sufficiently clear way. Reassuringly, this means that I can easily agree with the »objections« moved by Gabriel because they fail to address what I meant. And even more constructively, I agree with the last paragraph of his comment, which I finally recognise as a correct summary of some of the points I tried to [384] articulate in the article. Shame on me for such an apparent lack of clarity. As a former analytic philosopher, I promise to try to do better in the forthcoming book.

Reply to Armin Grunwald

The comment by Grunwald reminds me of one of those amazing technological artefacts one can sometimes observe in a museum, where the archaeologist is able to reconstruct and show a whole mechanism and its inner workings from just a few original bits of rusted metal. As I mentioned in the Preface, the article that I published is only a concise, simplified and heavily pruned synthesis of precisely the artefact that Grunwald has managed to reconstruct with remarkable insightfulness and patience. As he writes:

Luciano Floridi's »grand narrative« rather needs a monographic book project as a suitable form. (117)

Indeed, and the book is available, only in Italian but I hope soon in English (and in a more expanded version). As I anticipated in the Preface, I regret having failed to inform the readers of the article that the latter is not the whole Netflix series, so to speak, but more like a trailer. Once this is clear, it is impressive how well Grunwald has guessed the rest of the narrative from the available fragments. It follows that many of the valid requests made by Grunwald are entirely justified, about terminological clarifications, links with parts that seem otherwise only connectable yet not connected, supporting arguments, and so forth. By way of clarifying what this may mean, let me offer one specific example by relying on the chapter in which I explain what I mean by »mature information society«.

We are so familiar with talk of »*the* information society« that we sometimes forget that there is no such thing, but rather a multitude of societies, different from each other, some of which may qualify as information ones in different ways and degrees. So, we should really speak of »information societies« without a »the« but with an »s«, and ensure that our generalisations are not so generic as to apply to all of them, while obliterating any salient distinction. Just to be clear, there is always a level of abstraction at which something is like anything else: the moon is like your umbrella, which is like a pizza, because they are all individual objects that exist and look round, for example. The point is not being smug about one's own acrobatic equations (x is like y , which is like z) but being critical in checking whether the level of abstraction at which the equation is drawn is fruitful to fulfil the purpose that one is pursuing. All this should clarify why, once we have many information societies that are all different from one another, it

still makes sense to compare them in terms of relevant criteria and why, more specifically, it is essential to understand what it means for an information society to be more or less mature than others. In the article (and in the book), I refer to »maturity« as a matter of people's expectations, not technological or economic development, let alone ethics or civilisations. Let me explain this using an analogy.

When you are in a hotel in Paris, you rightly expect the water in the bathroom to [385] be drinkable because France is a »water mature society«. In fact, you do not even think about it. There is no need for the hotel to advertise the safety of its water, nor for you to ask at the reception whether the water is drinkable. France is a »water mature society« not just because of its water system, but because people living there treat drinkable water as something ordinary, non-informative, a matter of fact that lies in the background. It is part of life, of what anyone implicitly and unreflectively expects the water to be like in Paris. At the same time, we all know that drinkable water is not a trivial matter. There are hundreds of millions of people who do not have access to safe water. So, if you take a more adventurous holiday in an unfamiliar place, your expectations change. It becomes normal to inquire whether it is safe to brush your teeth with the water from the tap. Clearly, expectations change contextually. They are a good way to gauge the maturity of the society in which one lives. The formula is simple: if the occurrence of a feature F in a society S is no longer informative, but it is rather its absence that it is, then S is F mature. According to this interpretation, we are already living in mature information societies in some corners of the world. In such corners, we expect, as a matter of course, to be able to order any kind of goods online, to pay for them digitally, to be able to exchange any sort of contents on the web, to search for any question and find any bit of information, to use services, stream entertainment, and so forth, and all this 24/7, seamlessly, quickly, and reliably, without asking anymore whether it is possible, or being astonished that it is. We realise we live in a mature information society only when such expectations are unfulfilled. Once we analyse information societies in terms of their members' unreflective and implicit expectations, comparable to having drinkable water in Paris, then we can switch from quantitative to qualitative assessments, and consider some significant consequences. This is what I do more extensively in the book and partially in the article (the interested reader may wish to

check (Floridi 2016b), which is the original text in English of which the chapter in the Italian book is a revised version).

The exercise could be repeated, but I hope the previous example shows how brilliant the reconstruction and critical assessment provided by Grunwald is.

Reply to Ruth Edith Hagengruber

I have learnt much from Hagengruber's comment. This quotation well summarises one of the lessons I enjoyed most:

In this model [Bruno's], a unit is not seen as an immobile entity, as a part in a system of wholes, but as the capacity to entail differences, the more, the wider, the better and the stronger. The turn from a part-whole driven ontology to a perspective of things as objects of information began. (123)

It is a good reminder, to myself included, that new ideas are often old ideas that did not make it to the surface of our popular culture or academic discourse before. And as someone who has done research on the Renaissance and the transmission of knowledge (Floridi 2002), I agree entirely with Hagengruber. I think that the lesson [386] she outlines has remained largely unapplied, and that we still reason, in everyday life and in socio-political contexts, way too much in Aristotelian terms (small blocks making bigger blocks, the »Lego-like« ontology that I criticise in the article) and not enough in terms of relations, nodes, and connectedness. If this is more a Platonist tradition, I can only be delighted, having always been more of a friend of Plato's than of Aristotle's. There is more to learn from her text, for example the insightful link she highlights between the article and another work of mine in which I discuss the fourth revolution in our conceptual displacement (Floridi 2014) from the centre of the universe, of the animal kingdom, of the mental space and now of the infosphere (Copernicus, Darwin, Freud, Turing). But let me make one contribution to our dialogue lest I may appear too lazy. Hagengruber frequently refers to »post-humanism«, for example here:

The post-humanism of *the Green and the Blue* is only another step in the series of »lost uniqueness« and domination. (125)

She does so interestingly, but I have avoided using the same terminology in my own work for the same reason I avoid presenting a human

project for the twenty-first century in terms of Enlightenment or a new Renaissance. It is not just because these are periods that we have glorified through historical narratives that have been particularly selective and well-edited (Athens forced Socrates to commit suicide; the Enlightenment is also the guillotine; the Renaissance is also when Bruno was burned at the stake, etc.). This is the case, but perhaps it might still be fine, as long as we all know what we are engaging in an exercise of selective memory. It is also not because all these periods are »white male« periods, just to use Hagengruber's recurrent expression, and anyone unhappy with the qualification may also be reluctant to adopt them. Instead, it is because I am convinced that we need to understand our present and possibly design our future more autonomously, learning the lesson from those periods, which should teach us precisely the opposite of any post-anything approach: more intellectual independence. The Renaissance did not define itself post-medievalism, and so forth. We need to find our own voice, not simply appropriate our ancestors' or, even worse, define ourselves in terms of what we are not, post-this or post-that. I do not have a good suggestion to replace these labels, and this is a shortcoming of the point I am making here, for one may argue that, in the absence of any better conceptualisation, we may as well fall back to a good one. But, at least in my case, I would like to leave the conceptual space empty, and feel the pain of the absence, rather than filling it with post-humanism, or neo-Enlightenment or post-modernity or... any other ready-made label that invites us to be conceptually lazy and enjoy repetition, rather than risk novelty. So, I am happy to follow Hagengruber in her analysis and appreciate the terminological nuances but, when it comes to my own conceptual design, I am ready to feel that unpleasant feeling of a missing concept lingering on the tip of my tongue and yet still escaping a complete formulation. *Almost* like some kind of »post-humanism«, ... but not really. [387]

Reply to Alexander Kriebitz, Christoph Lütge, and Raphael Max

The comment by Kriebitz, Lütge, and Max is an excellent example of clear and substantive thinking (the valuable distinction between changes of degree and changes of type is a good case in question, where some constructive disagreement could bear fruit). There is much to

praise in both the content and the reasoning, but I shall limit myself here to stress the value of an »order ethics approach«.

I learnt about order ethics from Lütge himself a long time ago, and I have been convinced ever since that it may be a great companion of travelling for the explorations in which I engage. In case, it is only my fault that I have not relied on it more. The following quotation shows why:

Differing from first order approaches, which take a specific moral framework such as utilitarianism or deontology for granted, second order approaches – of which order ethics is one – are about solving conflicting statements on morality between first order approaches and solving situations in which conflicting normative expectations confront individuals. From the perspective of order ethics, the main purpose of ethics is to define the normative foundations of societies under the condition of moral pluralism and to elaborate principles and structures that overcome failures in cooperation. Different from virtue ethics or deontological approaches, norms derive here from the mutual consent of individuals, with the ultimate goal of reaching mutual improvements by cooperation. (138)

Any reader of the article will see that this is very close to what I have discussed there and in other contexts (Floridi 2016a, 2017) in terms of »infraethics«. By way of contribution to our constructive exchange, let me expand on one point, included in the quotation above, namely the concept of cooperation.

Cooperation is different from *collaboration*, which is different from *coordination*. Agents coordinate when they simply do not hinder each other while going their own ways. Imagine Alice and Bob cooking and eating their own meals when they want and as they wish, using the same kitchen. They coordinate their actions as long as neither of them represents an impediment for the other. Less metaphorically, when markets work correctly, they are good at creating coordination, e.g., through competition between Alice and Bob. Collaboration requires coordination, but it also includes sharing tasks: Alice may contribute the appetisers and the drinks and Bob the main course, in our example. Markets are less good at creating relations of collaboration in the absence of incentives. Cooperation needs even more, for it implies sharing the whole process: Alice and Bob do the shopping and the cooking together. They co-design, co-create, and co-own the meal, so to speak. Markets do not perform well when it comes to cooperation unless the law intervenes. This is where I find my own work on

infraethics and the order ethics approach complementarily helpful. For global problems require more than coordination or even collaboration, they require cooperation: a sharing of decision processes, choices, and implementations of policies that touch the lives of millions and sometimes billions of people. We only need to think about the pandemic or climate change. So, markets are necessary mechanisms, but they are largely insufficient without political will and normative incentives. [388]

Let me close with a couple of clarifications. I may be wrong in my analysis, but when I argue that we need to upgrade our ontology, what I mean is that I would welcome a relational way of thinking and conceptualising the world, including above all socio-political issues, as mainstream as opposed to an intellectual effort that has tried to make a difference since Plato. Far from me to say that we never reasoned relationally, or that there are no important precedents in understanding the world relationally. This would be a mistake too silly to make. What I am arguing is that, if we look at how we frame contemporary issues, we still see a Lego-like approach being the default approach. Referring to the debate about AI touched upon by the comment, for example, how many times do we still hear that it is a 2 or 3 players game, US, China and maybe the EU? This is what I mean when I say that we should change our perspective.

Finally, I agree that the second half of the twentieth century reacted to the horrors of the first half by implementing a meta-project that would not offer a social project but only the protection of individual projects. This has been a significant development and I hope a point of no return, at least for liberal democracies. However, today, we also need to find a better middle-ground. We need to ensure that Alice and Bob can pursue their own projects, but also help them to have a project as a couple, to use my previous analogy. Because the global problems we are facing can only be solved together, cooperating, not just individually and merely coordinating. To use a recent example, it is only if the G7 and then the G20 cooperate that the problem of tax abuses by multinationals and online technology companies can be tackled. Even the whole EU would be insufficient, if working alone. The American constitution begins with »We the people...« and it is precisely that »we approach« that I am defending in the article, not as an alternative to, but as a necessary complement of the individualism to which we are so accustomed: we must walk on two legs, have protection of individual projects and promotion of social projects. We

need coordination, but also collaboration and cooperation. This is how I would analyse an »institutional understanding of ethics«, an important remark that concludes their interesting comment.

Reply to Catrin Misselhorn

I expected a comment about the article in this collection, but the text by Misselhorn is about a book I published in 2019: *The Logic of Information – A Theory of Philosophy as Conceptual Design* (Florida 2019). Putting aside the surprise, I begun reading it as a review of the book, but, actually, it is only a series of objections to my replies to four potential objections that I imagine one may formulate (both conceptually and historically) to my interpretation of philosophical questions as open questions, that is as questions that remain open to reasonable disagreement even when the parties involved have all the factual, scientific, logico-mathematical information one may wish them to enjoy. If the readers have already lost any interest, I fully sympathise. However, if they are still reading, then, regrettably, I must confess that I have not learned anything from the objections. Of course, this is my [389] problem and my loss. But I have a justification. The objections appear to me so unrelated to what I mean, state, and argue that, conceptually speaking, they are not even wrong. Instead, they remind me of the famous remark by Pauli: »Das ist nicht nur nicht richtig; es ist nicht einmal falsch!«. Let me give you one example. I hope everybody will agree that »what is the result of $1+1$?« is a mathematical question, even if extremely simple, perhaps too elementary to bother anyone who is not a child (but mind that it takes hundreds of pages to prove that the answer is 2 in *Principia Mathematica*). Mathematical questions studied by mathematicians are way more complicated and more consequential. Yet, this takes nothing away from the mathematical nature of the question about the sum indicated above. Mathematical questions can be that simple and elementary. So, when someone objects that a philosophical question cannot be an open question because some open questions are too simple and elementary to qualify as philosophical, like »should I wear my hair shorter?«, the reply is similar: that is still a philosophical question, just one that is not very interesting and consequential. There is not even a bullet to bite; this is just plain common sense. I am sure there is a stage in life when it is a crucial, significant question

for someone. But it is not just the sort of foundational, consequential question addressed by philosophers, who may start questioning what the alternatives are (long, very long, short, very short, etc.), and whether some of them are dictated by social, or peer pressure or perhaps fashion or maybe health, etc. to finally get to something that is richer in significance and consequences and deeper in insights. But philosophical questions too, can be that simple and elementary. Just check those asked by children.

Things do not improve as the text progresses, and the objections end with a rather odd description of the method of abstraction – something quite ordinary in Computer Science where it is studied in the context of Formals Methods – which I could not recognise, and indeed quite distant from the (textbook) material presented in the book. I won't bother the reader with all this; I only wish to stress my inability to follow Misselhorn's text. I have not recognised any of my ideas in the comment. The last part is particularly baffling. Here is an example:

Floridi's new political ontology tends to obscure these dangers. The replacement of the individual as the normative foundation of society by a relational view that reduces it to a node in a functional system lends itself readily to technological solutionism which goes against the spirit of liberal democracy. Discarding the idea of the free and equal moral person as the normative basis of political theory is tantamount to affirming the practices of the Tech Giants even if Floridi wants to give them a positive spin with infraethics. (154)

Nothing could be more distant from what I wrote and argued. I find it reassuring that several other commentators in this collection have understood the points I have sought to make and criticised them with insightful clarity. It shows that it is doable. Of course, readers have the right to misread authors and misinterpret their intentions as they wish. Sometimes it is even helpful for the development of their own ideas. But authors have the right to be astonished by such a lack of understanding, refuse to have words put in their mouth, as the saying goes, and not engage with something they never wrote or meant in the first place. [390]

Reply to Malte Rehbein

The comment by Rehbein is interesting because I have learnt from it (as from some, though we have seen not all, comments in this collection) where I need to be clearer and more explicit. I am saying this because I believe I would subscribe to almost anything he writes (more on the »anything« qualification presently). However, in the future book, I shall still resist the temptation of moving from discussing problems and solutions to discussing people and their theories. If I am wrong, I won't become right just because I make such a shift; if I am right, the shift may always follow later (and if anyone is interested in doing such interpretative work, I shall be most grateful and honoured). For now, *ars long vita brevis*, as they used to say, life is too short, and I am keen on exploring the ideas discussed by Rehbein in his comment, not people. So, I would rather run the risk of reinventing this or that wheel than spending a lifetime wondering whether the wheels I need have already been invented, by whom, and why, and whether they are really like the ones I need or just similar, which ones work better, and so forth. As Montaigne once wrote (I go by memory, I hope it is Montaigne), one cannot do research (I think he says explore) without losing sight of the coast. So here I am, lost. This is not a license to be lazy though; therefore, in terms of my contribution to this asynchronous dialogue with Rehbein, let me take advantage of a very helpful paragraph, on p. 157, to clarify some of my thoughts. I will structure the paragraph into a conversation between R (Rehbein) and (F):

- R: »I would like to argue that the world is not secular.«
- F: I agree, but I would like to add: unfortunately. A secular world has a better chance of being more tolerant than a non-secular one (by the way, I am not an atheist, I am a religion-friendly agnostic, and I would give anything to reacquire my faith, I just seem to be unable to get it back no matter how hard I try).
- R: »It is not binary, neither ontologically nor in terms of an information divide.«
- F: I agree, but in the same sense then it is not analogue either; on this, I agree with Kant, discrete vs continuous are ways in which we conceptualise reality (Floridi 2009).

- R: »Technology is not the only solution, but part of the problem and it should be treated as such.«
- F: This is imprecise. Technology can be part of the solution – do we really need to stress the immense benefits of technology at all levels? I am reminded of it every time I go to the dentist – but can also be part of the problem – ditto – so it is up to us to make sure that only the first half takes place.
- R: »Capitalism is not a compelling prerequisite (markets are).«
- F: I am not sure what »compelling prerequisite« means. However, if it means that we can solve our environmental and social problems by getting rid of capitalism, or by-passing it, or stopping it, etc., then I wish that were true, but I fear we better be realistic and harness capitalism and its energies to solve the problems we have. This is why politics, legislation, and governance are so crucial.
- R: »The human condition, together with a new contractual definition of global [391] equality and justice, well-being and welfare beyond materiality and consumption should indeed be the starting point of any human project.«
- F: I agree. I would add that we need to create enough wealth for the billions of people who live so miserably, though. »Beyond materiality« is fine as long as it is not the kind of materiality that determines the availability of food and shelter, decent living standards, human rights, jobs, health care, safety, etc. Call that »good materiality«, and we are on the same page. I intensely dislike consumerism, but we need more »good materiality« for billions of people.
- R: »However, information is a necessity, but not a sufficiency to serve as a core concept for a new ethical and political framework.«
- F: If I understand this correctly, I agree, and strongly doubt anybody could disagree.
- R: »What is required might not be a new ontology, but a new inter-generational social and environmental contract.« – End of the paragraph (p. 157).
- F: In the book, I have suggested replacing the social contract with a sense of ontic trust. Let me close this reply and the whole set by

summarising what I mean by it (the reader interested in knowing more can check chapter 15 of (Floridi 2013))

A straightforward way of clarifying the concept of ontic trust is by drawing an analogy with the idea of »social contract«. Various forms of contractualism (in ethics) and contractarianism (in political philosophy) argue that moral obligation, the duty of political obedience, or the justice of social institutions, have their roots in, and gain their support from, a so-called social contract. This may be an actual, implicit, or merely hypothetical agreement between the parties (e.g., the people and the sovereign, the members of a community, or the individual and the state) constituting a society. The parties accept to agree to the terms of the contract, and thus obtain some rights, in exchange for some freedoms that, allegedly, they would enjoy in a hypothetical state of nature. The rights and responsibilities of the parties subscribing to the agreement are the terms of the social contract, whereas the society, state, group etc., is the artificial agent created to enforce the agreement. Both rights and freedoms are not fixed and may vary, depending on the interpretation of the social contract.

Interpretations of the theory of the social contract tend to be highly (and often unknowingly) anthropocentric (the focus is only on human, rational, individual, informed agents) and stress the coercive nature of the agreement. These two aspects are not characteristic of the concept of ontic trust, but the basic idea of a fundamental agreement between parties as a foundation of moral interactions is sensible. In the case of the ontic trust, it is transformed into a primeval, entirely hypothetical *pact*, logically predating the social contract, that all human (I shall drop this specification henceforth, unless this generates confusion) agents cannot but sign when they come into existence, and that is constantly renewed in successive generations.

Generally speaking, a trust in the English legal system is an entity in which someone (the trustee) holds and manages the former assets of a person (the trustor, or donor) for the benefit of some specific persons or entities (the beneficiaries). Strictly speaking, nobody owns the assets; since the trustor has donated them, the trustee has only legal ownership; and the beneficiary has only equitable ownership. Now, [392] the logical form of this sort of agreement can be used to model the ontic trust, in the following way:

- the assets or »corpus« is represented by the world, including all existing agents and patients;
- the donors are all past and current *generations* of agents;
- the trustees are all current *individual* agents;
- the beneficiaries are all current and future *individual* agents and patients.

By coming into being, an agent is made possible thanks to the existence of other entities. It is therefore bound to all that already is, both *unwillingly* and *inescapably*. It *should be* so also *caringly*. *Unwillingly*, because no agent wills itself into existence, though every agent can, in theory, will itself out of it. *Inescapably*, because an agent may break the ontic bond only at the cost of ceasing to exist as an agent. Moral life does not begin with an act of freedom, but it may end with one. *Caringly* because participation in reality by any entity, including an agent – that is, the fact that any entity is an expression of what exists – provides a right to existence and an invitation to respect and take care of other entities. The pact then involves no coercion, but a mutual relation of appreciation, gratitude, and care, which is fostered by recognising the dependence of all entities on each other. A simple example may help to clarify further the meaning of the ontic trust.

Existence begins with a gift, even if possibly an unwanted one. A foetus will be initially only a beneficiary of the world. Once she is born and has become a full moral agent, Alice will be, as an individual, both a beneficiary and a trustee of the world. She will be in charge of taking care of the world, and, insofar as she is a member of the generation of living agents, she will also be a donor of the world. Once dead, she will leave the world to other agents after her and thus become a member of the generation of donors. In short, the life of an agent becomes a journey from being only a beneficiary to being only a donor, passing through the stage of being a responsible trustee of the world. We begin our moral agents' career as strangers to the world; we should end it as friends of the world.

Bibliography

- Floridi, L. (2002), *Sextus Empiricus: the transmission and recovery of pyrrhonism*, Oxford.
- (2008), »A Defence of Informational Structural Realism,« in: *Synthese* 161(2), 219–253.

- (2009), »Against digital ontology,« in: *Synthese* 168(1), 151–178.
- (2013), *The Ethics of Information*, Oxford.
- (2014), *The Fourth Revolution – How the Infosphere is Reshaping Human Reality*, Oxford.
- (2015), »Toleration and the Design of Norms,« in: *Science and Engineering Ethics* 21(5), 1095–1123.
- (2016a), »Hyperhistory, the emergence of the MASs, and the design of infraethics,« in: *Information, Freedom and Property: The Philosophy of Law Meets the Philosophy of Technology* (ed. Hildebrandt; van den Berg), Chapter 7, London.
- (2016b), »Mature information societies – A matter of expectations,« in: *Philosophy & Technology* 29(1), 1–4.
- (2016c), »The method of abstraction,« in: *The Routledge Handbook of Philosophy of Information*, London, 66–72. [393]
- (2016d), »Tolerant Paternalism: Pro-ethical Design as a Resolution of the Dilemma of Toleration,« in: *Science and Engineering Ethics* 22(6), 1669–1688.
- (2017), »Infraethics – on the Conditions of Possibility of Morality,« in: *Philosophy & Technology* 30 (4), 391–394.
- (2018), »Semantic Capital: Its Nature, Value, and Curation,« in: *Philosophy & Technology* 31(4), 481–497.
- (2019), *The Logic of Information: A Theory of Philosophy as Conceptual Design*, Oxford.
- (2020a), »The Fight for Digital Sovereignty: What It Is, and Why It Matters, Especially for the EU,« in: *Philosophy & Technology* 33(3), 369–378.
- (2020b), *Il Verde e Il Blu – Idee ingenue per migliorare la politica*, Milan.
- Roberts, H./Cowls, J./Morley, J./Taddeo, M./Wang, V./Floridi, L. (2021), »The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation,« in: *AI & SOCIETY* 36(1), 59–77.

Meta-Replies

Manfred Broy

A Brief Final Reflection on the Reply of Luciano Floridi to My Reply

In fact, I do not have a deep disagreement with Luciano Floridi. In fact, I agree to most what he writes in his reply. However, perhaps there are some aspects which have been overlooked and left out so far and which deserve some mentioning in the context of what Luciano Floridi is arguing about. I believe that it is important to understand the history of the creation of the digital.

Of course, in the early days, both Zuse and Turing, were involved in the Second World War using pioneering inventions in the field of digital technology in connection with military motivations and applications. This applied also to the next steps, especially in the US, where computers were further developed. However, this was just the beginning. Only two decades later computing machinery arrived at a higher level of maturity such that a quite different group of people from California were more and more fascinated. There were activities such as the whole earth network project and also the home-brew computer club who developed ideas of digital technology to achieve a higher degree of personal freedom in an emerging digital utopia. Those early ideas influenced and were influenced by the creation of the internet and as well as the ideas of personal computing and personal computers. These activities were motivated by some counter culture as a step into cyber culture. The collaboration between San Francisco's flower power movement with these ideas lead to the technological hub of Silicon Valley, and Silicon Valley generated the ideas of the digital age. With the disappointment of many of the early pioneers after the total commercialization of the digital technology and their use for military purposes, it became obvious that in quick movements the idealistic ideas of the pioneers were completely overwhelmed by commercialization by the hyper scalers. As Bruno Latour stated »Change

the instruments and you will change the entire social theory that goes with them.«¹

This explains to some extent what happened with the digital transformation. Digital technology is such a powerful tool and brings in so many inventions and innovations, both for business and for politics. This is one reason, why it is so difficult to define a human project. However, we should not forget that – at least – some of the sources of the visions and ideas of the digital age came out of thoughts which are not so far from ideas of a human project. However, the hippies of the late 60s lost their fight for and their faith into digital utopianism by observing the fast turnaround from counter culture to cyber culture.

¹ B. Latour: »Tarde's idea of quantification«, in: M. Candea (ed), *The Social after Gabriel Tarde: Debates and Assessments*, London 2016, 145–162, 153.

Reply to Floridi's Reply

First and foremost, I thank Luciano Floridi for pointing out that there is already a longer version of the paper under discussion, published as a book in Italian. I am looking forward to reading it (no need to wait for the English translation, I read Italian). For my reply to his reply, I will, however, exclusively focus on what is explicit in the reply.

First of all, he explicitly describes his project as a »postmodern meta-project« (Floridi 2020, 321). The hyphen I sometimes used in my own formulations has no specific meaning. Thus, if he wants to reconsider my reply to his original paper, he can just ignore the hyphen.

In his reply, he informs us that he »moved to a department of social science« (Floridi 2021, 381). Thus, asking for a contextualization of a relational account within the most prominent social theories of our own time (whether one likes them or not is an entirely different question) is not a surprising maneuver. I myself have many objections against actor-network theory, and my intention was not to recommend it, but that would be a different discussion.

I am glad to hear that Floridi does not believe that his recourse to the relationship between classical and quantum mechanics is anything more than a »pullback metaphor,« as the physicist Harald Atmanspacher calls this.¹ I will leave it at that.

Floridi maintains that »almost all« of my objections are »correct but irrelevant.« (381) He claims that there is »one that is relevant, but luckily, it is incorrect« (381). As a reason why it is incorrect, he mentions that it is »based on lack of knowledge of the methodology it discusses« (381) and then he quotes the objection. However, what he quotes is indeed an objection and not evidence of a »lack of knowledge

¹ He refers to the Pauli-Jung conjecture connecting Jungian psychoanalysis and quantum theory: »structural relations in a new domain to be explored are pulled back to structural relations in a familiar domain.« (Atmanspacher 2020, 533).

of the methodology it discusses« (382). Hence, this claim is merely polemical and can be discarded as irrational. He mischaracterizes my objection and does not prove any lack of knowledge of anything on my part. It is perfectly possible to know a philosophical position (and I have read Floridi's technical work) and object to it. Let's focus on the issue. He confesses to wanting to »maintain some Kantian, sensible approach« (382) which he contrasts with »an ontological interpretation of the method of abstraction.« (382) The alternative to this he considers is the attempt to provide »the ultimate answers about the intrinsic ontology of *noumena*« (382) which he believes »to be a nonsensical waste of time« (382). As far as the rationality of his reply to my objection is concerned, I can only see one element in his defense, namely his pragmatist idea that the correctness of a LoA depends on a given purpose and that this is built into his notion of a LoA. Now, some such form of pragmatism might very well be built into his notion of a LoA and, thus, be an essential part of his reply that there are pragmatic rightness conditions for choosing a LoA. But in addition to a purpose, like it or not, there are objective ontological features of reality that significantly contribute to which purpose is better than some other purpose, a distinction that can be judged quite independently of model construction. And this moves the conceptual action to another level that has nothing to do at all with a choice between some »Kantian« epistemology and a commitment to an »intrinsic ontology of *noumena*« (382). There is a disagreement between us here, which leads deeper into various realism debates. Let it be noted in passing that I could not understand from his short comments what it would take for a view to be »ontologically committed«, in Quine's sense, »only in terms of epistemological choices« (382), but thereon hangs a tale.

I thank Floridi for his comments on his take on the religion/ethics distinction and how he takes it to relate to the issue of tolerance. I disagree with him that »the best kind of ethics« (383) is more tolerant than »the best kind of religion« (383) and he certainly provides no evidence for his claim apart from his unsupported claim that »ethics texts and practices provide the evidence« (there is no reference to an actual ethics text or practice in his reply). Many ethics texts (by no lesser figures than Kant, Locke, or Hobbes) contain explicit misogynist and racist statements and justifications of intolerant practices of subjugation of whole peoples. Further, I do not know what an »ethics practice« is meant to be.

Instead of replying to any of my specific questions concerning his random list of 69 political ideas (again: with many of which I happen to sympathize), he prefers to just brush my objections aside by calling them »misunderstandings« which he sees as a result of my not being a sufficiently »careful and charitable reader« (383). At the same time, he offers a *sua culpa* for his »shortcomings« in clarity. But either he can blame me for not being »careful« enough or he did not express his ideas carefully enough. Maybe he wants to have it both ways, but that would be a contradictory desire. Again, I'll leave it at that, as the reply to my replies in the last paragraph of his reply is merely polemical, when it could have addressed my specific objections.

For clarity's sake and in order to fend off his polemical remarks concerning alleged »misunderstandings,« let me just repeat one of my questions without expecting an answer: why is democracy »the best way to create and maintain the governance of a polity« and how exactly is this claim (with which I wholeheartedly agree) justified by Floridi? And he has still not told us what »the values of the EU« are, such that one could actually exclude some of its member countries on their basis. While it often strikes me personally as politically sensible to worry about populist political developments in Italy, France, Hungary or Poland, or within Germany, I have no doubt that similar worries about »shared values« are present in those other member states of which I do not happen to be a citizen. Should the EU have excluded Berlusconi's Italy and could Italy have returned now? A philosophical claim concerning the relational nature of governance alone can certainly not justify any specific political decision concerning EU-membership and the completely vague reference to »the values of the EU« does nothing to support the political theses of Floridi's article either.

Bibliography

- Atmanspacher, H. (2020), »The Pauli-Jung Conjecture and Its Relatives: A Formally Agumented Outline,« in: *Open Philosophy* 3, 527–549.
- Floridi, L. (2021), »Replies to Broy, Gabriel, Grunwald, Hagengruber, Kriebitz, Lütge, Max, Misselhorn, and Rehbein,« in: *Philosophisches Jahrbuch* 128(2), 378–393.

Reply to a Reply: Knowledge in the Digitized World: The Third Knowledge Dimension¹

First of all, I would like to thank Luciano Floridi for his openness to my proposal to link the new way of knowing in the information age in a mental leap with the ideas of a very different ontological construction as elaborated in the work of Giordano Bruno and especially Tommaso Campanella. The latter was already thinking four hundred years ago of a non-hierarchical categorical system that would build an ontology of experience on the basis of an »is« and »is not« statement in which overlaps or aggregations in all dimensions of the topology would reflect different kinds of perspectives of knowledge instead of a hierarchically structured tree of knowledge.

Of course, it makes a big difference whether these connections are presupposed – as in Renaissance philosophy – or whether they are generated as sequences of algorithmic patterns and aggregated connections, as is possible today.² For both basic philosophical concepts, however, it is true that the human being or human rationality plays a different role than in anthropocentric philosophies. And anthropocentric dominance is said to be the *only* determining force. This is no longer true and can no longer be asserted in the face of the rapidly evolving determinative power of artificial intelligence. I have shown elsewhere that the knowledge production of artificial intelligence must be seen as an independent factor of our epistemic world and cannot be reduced to the first two elements. It constitutes the *third dimension* of our knowledge and complements the other two epistemically relevant dimensions we know, the subject and the

¹ This essay is a comment on Luciano Floridi's investigation into the »The Green and the Blue«, presented in: *Philosophisches Jahrbuch* 127(2) (2020), 307–338, my response to his paper in: *Philosophisches Jahrbuch* 128(1) (2021), 122–135 and his response to my response in the *Philosophisches Jahrbuch* 128(2) (2021), 385–386.

² See Hagengruber (2017), 331–341.

object. Artificial intelligence generates its own dimension of contexts and categorial orders. They may not always seem meaningful to us and we only assign »meaning« to part of them, but we do it. For this reason, and based on these considerations, I argue that the dominance of the human subject as the sole producer of knowledge is outdated.³

Once again, I would agree with Luciano Floridi, to call this other ontological account »posthumanist« is infelicitous. Nevertheless, it is correct to point out that what knowledge and science mean to us humans, namely to strive for the goals that we have researched and try to produce out of our capacity as »the best«, is no longer entirely produced by and limited to human capacity. Knowledge today is also generated by the functioning of artificial intelligence. Knowledge is therefore no longer completely and exclusively bound to »human« knowledge.

For a long time, philosophy has worked with a two-dimensional epistemology, presenting the essential elements of gaining knowledge as a relationship between subject and object.

Today's knowledge machines break this binary scheme. They emerge as a third element that is as productive of knowledge as we are. Together and separately, we are creating a new world of knowledge.

The new epistemology is thus three-limbed. And this three-memberedness is the cause of the fact that our knowledge, and that means also our interpretation of the world, will be different in the future, than it was before. It will anchor us differently in nature and society than before. Algorithmic methods, new ways of knowledge aggregation and changed compositions of knowledge clusters structure knowledge of the world in new ways.

³ Hagengruber (2022). See also, Ruth E Hagengruber, *The Third Knowledge Dimension. How AI Changes Epistemology*, Digital Talk, at: *Ethics and Digitalization*, Cultural Entrepreneurship Institute Berlin and Venice International University 2021, Talk 25th November 2021. *The Third Knowledge Dimension. How AI Changes Epistemology* (Berlin); see also: *The Third Knowledge Dimension. How AI Changes Epistemology* (IAPH)
<https://www.youtube.com/watch?v=Z1sOIQ5vktY>.

Bibliography

- Hagengruber, R. E. (2017), »Creative Algorithms and the Construction of Meaning«, in: *Berechenbarkeit der Welt?*, edited by Jörg Wernecke, Wolfgang Pietsch, and Maximilian Ott, Wiesbaden, 331–341.
- (2022), »Die ›dritte Wissensdimension‹. Eine Epistemologie für eine neue Wissenswelt«, in: *Cyberscience – Wissenschaftsforschung und Informatik. Digitale Medien und die Zukunft der Kultur wissenschaftlicher Tätigkeit*, edited by Gerhard Banse and Klaus Fuchs-Kittowski, Berlin, 253–258 (Sitzungsberichte der Leibniz-Sozietät der Wissenschaften zu Berlin, Bd. 150/151).

Reply to Luciano Floridi

The fact that my comment mainly refers to Floridi's then newly published book goes back to a misunderstanding. I had understood the request to be about a book symposium and assumed that Floridi's initiative essay would be a précis of that book. When I received it, I had already elaborated the outline of my comment about the book, and I found that I could not really work with the initiative essay because it was purely programmatic. It lacked arguments on which my comment could operate. The text floated in a theoretical vacuum, since it deliberately made no effort to engage argumentatively with opposed views that anybody actually defends.

On closer examination, this characteristic seemed to be a consequence of Floridi's view of the nature of philosophy as conceptual design and the fundamental openness of philosophical questions, which I had addressed in my comment. For this reason, I decided (encouraged by the editors) that my comment does provide an illuminating perspective in the debate of the initiative essay and I extended it by the last section, which provides the transition between the book and the essay. Situating the text within the larger methodological framework of the book brings a dimension to the discussion, which does not get into view by focusing just on Floridi's initiative essay.

This is why the disagreement between Floridi and me goes deeper than in the other comments. We are playing two different games. The game that I am playing is the game of epistemic justification with the aim of arguing for the truth of philosophical claims. One can trace this game back to the Platonic distinction between *Techné* and *Epistémé* which is really at stake here. Floridi, in contrast, plays a constructionist new game that he labels »conceptual design« which is the result of what he calls metaphorically »rebooting« philosophy.

The dictionary meaning of »rebooting« is to restart a computer. Yet, if one takes Floridi's rhetoric of revolution seriously, his project is rather comparable to what is known as »rebooting« in the enter-

tainment industry with respect to movies, comics or video games. In this context, the term »reboot« means to restart an entertainment universe that has already been previously established, and begin with a new story line and/or timeline that disregards the original writer's previously established history, thus making it obsolete and void.« (Willits 2009) It seems to me that Floridi's rebooting of philosophy works similar, familiar names from the history of philosophy appear but his game is not the same any more. [He compares what he is doing to pulling a table cloth from under a dinner service at once, »if we are successful« Floridi concludes, »what will have changed is what the items are placed on, not their positions.«]

The fact that Floridi, for his part, finds my considerations not helpful is, hence, not surprising. It is due to a completely different understanding of what philosophy is about. If philosophical questions are open in Floridi's sense, then it does not make sense to say that philosophical claims can be true or false. Insofar as philosophical arguments aim at justifying why one should accept a certain view as true, the thesis of the openness of philosophical questions would explain why Floridi is not putting forward arguments in his initiative essay, but rather aims at establishing a new narrative.

The following passage gets to the heart of this new narrative:

But what concept can today replace the main one of a social *thing*? Almost a century ago, Cassirer identified the end of what I have defined here as the Aristotelian–Newtonian paradigm in the transition from the centrality of the concept of substance (things) to the centrality of the concept of function (relations) in mathematics and physics (Cassirer 1923). He was right, and the next step is simple: a function is only a special kind of univocal relation between input and output. It is therefore a matter of appreciating the possibility that it is not the concept of »thing«, but that of »relation«—which refers to what constitutes all things and connects them among themselves – that can play a foundational role in the political thought of the twenty-first century. (p. 6)

It still seems to me that this view, if we take it seriously as a *paradigm change*, amounts to the idea of replacing the individual as the normative foundation of political philosophy by a relational view that reduces it to a node in a functional system. I also pointed to the moral and political dangers that result from replacing the notion of a free and equal moral person by such a functional view. In the light of these dangers, Floridi's artificial naiveté appears to be frivolous and it

falls short of more customary views in political philosophy like Rawls' who shows that we can do political philosophy without resorting to questionable metaphysical claims.

Floridi assures that nothing could be more distant from his views than my interpretation. However, if this is true, then I am losing grip on what exactly the *paradigm change* that he envisages consists in. It would have been helpful to specify the old paradigm with reference to the contemporary philosophical discussion to avoid making it appear just as a straw man in which everybody could see their favorite philosophical bogeyman.

Floridi's strategy of intentionally emptying the text from any »cunning of reason« (p. 3), technical terms and bibliographic references that allow to situate it in the context of specific debates made it incomprehensible to me. Maybe I belong to the »contaminated [who] should take no offence, but they will not understand it.« (p. 3). However, my aim in philosophy is precisely to convince those with rational arguments who do not agree with me and not just address those who already share my views.

This is what I did in my comments on his book. I elaborated on four key objections against his thesis of the openness of philosophical questions in a standard philosophical way by producing arguments that support these objections. Floridi's reply to my comment does not at all address these arguments. Take, for instance, his method of abstraction. I do not have any problems with this method in the context of Computer Science, but I argued against his transfer of this method to philosophical problems with reference to his own explication and examples. His derogatory reply to my comment is ultimately a refusal to engage with my arguments. Floridi finds them unappealing and maybe that is in some sense true. However, as Davidson once said with respect to conceptual relativism (which bears some resemblance to Floridi's view), »The trouble is, as so often in philosophy, it is hard to improve intelligibility while retaining the excitement.« (Davidson 1984, 183)

In the end, Floridi's feeling that I do not understand his views properly have to do with the fact that our disagreement about the nature of philosophy is so deep that we cannot even find common ground for discussion. This becomes obvious in his reply to my objection that a question like: »Should I wear my hair shorter?« fulfils his criteria for philosophical questions but is obviously none (by the way, I never claimed that the reason for this is that the question is too

simple and elementary as Floridi puts in my mouth). In response, he simply states, »that is still a philosophical question, just one that is not very interesting and consequential. There is not even a bullet to bite; this is just plain common sense.« (Reply, p. 389)

I doubt that even common sense would consider this question as philosophical. Yet, it is true, common sense often uses the term »philosophy« to refer to the purely speculative, arcane and ultimately irrelevant, to matters of ideology that are beyond rational debate because one cannot be right or wrong about them. In this sense, one might point out something like »my hair-philosophy is: rather too short than too long!« However, this example does not show that there is hair-philosophy. It rather shows that one is as ill advised to trust common sense when it comes to the nature of philosophy as when it comes to the nature of mathematics, paleontology or psychology.

Bibliography

- Davidson, D. (1984): »On the Very Idea of a Conceptual Scheme«, repr. in: *Inquiries into Truth and Interpretation*, Oxford 183–198.
- Willits, Th. R. (13 July 2009), »To Reboot Or Not To Reboot: What is the Solution?«, <http://www.bewilderingstories.com/issue344/reboot1>. Retrieved June 2022.

Postscript

As a final comment, I do not wish to reply to the replies to my replies – I doubt any reader would be interested – but rather renew my thanks to the editors for their kind invitation; express my gratitude to the colleagues who spent time studying and commenting on my work; and issue an invitation to the readers who are at an early stage of their philosophical career.

As an ex-analytic philosopher, I'd rather be understood, even if then criticised for being wrong, than misunderstood, no matter whether appreciated for being right on something I never held. Of course, like everybody else, I hope to be understood and right for the right reasons. However, as the debate in this volume shows, it is never easy to be clear, cogent, and correct. So, as usual, more work remains to be done. Yet this is trivial and will always apply to any human endeavour. The difference, in this case, is that I hope others will join the effort. This is the invitation. We need philosophers to engage with the issues generated by the digital revolution, understand much better the current challenges facing the information society, and design solutions that can be translated into actual, positive changes to improve politics, support humanity, and save the planet. If this debate will have convinced the reader that the topics we are discussing should be at the very core of our philosophical concerns today, I shall consider it a success.

About the Contributors

Manfred Broy is a professor for informatics at the Technical University of Munich. His expertise is in software & systems engineering, but also in the development of the digital transformation concerning questions in techniques, politics, society, and ethics.

Luciano Floridi is the OII Professor of Philosophy and Ethics of Information at the University of Oxford and Professor of Sociology of Culture and Communication at the Alma Mater Studiorum University of Bologna, where he directs the Centre for Digital Ethics. World-renowned as one of the most authoritative voices of contemporary philosophy, he is considered the founding father of the philosophy of information and one of the major interpreters of the digital revolution. He is deeply engaged with policy initiatives on the socio-ethical value and implications of digital technologies and their applications, and collaborates closely on these topics with many governments and companies worldwide. He has published more than 300 works on the philosophy of information, digital ethics, the ethics of AI, and the philosophy of technology. His works have been translated into many languages, including Arabic, Chinese, Czech, Dutch, French, German, Greek, Hungarian, Italian, Japanese, Lithuanian, Persian, Polish, Portuguese, Russian and Spanish. He has been awarded many prizes and laureae honoris causa. In 2022, Sergio Mattarella, President of the Italian Republic, bestowed upon him Italy's most prestigious honour, the title of Knight of the Grand Cross of the Order of Merit, in recognition of his foundational work in philosophy.

Markus Gabriel holds the chair for Epistemology, Modern and Contemporary Philosophy at the University of Bonn. He is Director of the International Centre for Philosophy and of the Center for Science and Thought. Currently, he is Academic Director at The New Institute in Hamburg.

Armin Grunwald is a full professor of Philosophy and Ethics of Technology at Karlsruhe Institute of Technology (KIT), Germany. He has been director of the Institute for Technology Assessment and Systems Analysis at KIT (ITAS) since 1999 and Director of the Office of Technology Assessment at the German Bundestag in Berlin since 2002. His research fields include technology assessment, ethics of new technologies, digitalization, theory of sustainable development and sustainability research. Armin Grunwald is member of several advisory commissions and committees, e.g. of the German Ethics Council.

Ruth Edith Hagenruber holds a chair dedicated to the philosophy of Economics and Information Science at Paderborn University. She is also Director of the Center for the History of Women Philosophers and Scientists. She got her PhD with a thesis on Tommaso Campanella at Ludwig Maximilian-University Munich. From 2011-2019 she served in the Advisory Board of Technology in Society for the Technical University Munich and became Life-member of the International Association of Philosophy of Information Science in 2011. In 2020 she became elected member of the Leibniz-Sozietät der Wissenschaften zu Berlin. She serves as chief editor of the German Springer series *Frauen in Philosophie und Wissenschaft* and as co-editor of the International Springer series *Women in the History of Philosophy and Science*. With Mary Ellen Waithe, she co-edits the *Encyclopedia of Concise Concepts by Women Philosophers* and the *Journal for the History of Women Philosophers* at Brill's. With De Gruyter she edits the series *Women Philosophers World Heritage Collection*. Since 2021, she serves as secretary of the International Association of Women Philosophers. Main publications: *Nutzen und Allgemeinheit*. Akademie Verlag (2000). *Philosophy, Computing and Information Science*. Pickering & Chatto (2014). *Époque Émilienne. Philosophy and Science in the Age of Emily Du Châtelet 1706-1749*. Springer (2022).

Alexander Kriebitz is a political scientist, who studies the overlap of international law, business ethics and international relations. His current project is a re-examination of literature on Business and Human Rights and the division of labor between states and companies in fulfilling human rights responsibilities. To this end, Dr. Alexander Kriebitz published research articles in the Business and Human Rights Journal and in the Human Rights Review.

Christoph Lütge is Full Professor of Business Ethics at Technical University of Munich and the Director of the TUM Institute for Ethics in Artificial Intelligence. He is Distinguished Visiting Professor of Tokyo University and has held further visiting positions at Harvard, Stockholm, Taipei and Kyoto. He has a background both in philosophy as well as business informatics. In 2007, he was awarded a Heisenberg Fellowship by the German Research Foundation.

Raphael Max is an economist with a philosophical background who studies political, economic and social conditions of human behavior in a modern globalized world. A particular focus of his research is the discrepancy between moral judgment and human action. Dr. Raphael Max' current project is the analysis of the normative perception of economic activities under uncertainty and moral evaluation of investment decisions.

Catrin Misselhorn is chair of philosophy at the University of Göttingen. She is working on the philosophy of AI, robot- and machine ethics. Her books include *Grundfragen der Maschinenethik (Basic Issues in Machine Ethics)* 2018, 5th ed. 2022 and *Künstliche Intelligenz und Empathie (Artificial Intelligence and Empathy)* 2021. Among her recent articles are: 'Artificial Moral Agents', in: *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary Perspectives*, Silja Voenekey et al. (eds.) 2022 and 'Artificial Systems with Moral Capacities? A Research Design and its Implementation in a Geriatric Care System', in: *Artificial Intelligence* (278), January 2020, 103179.

Jörg Noller is currently deputy professor for Practical Philosophy at the University of Konstanz and lecturer at the University of Munich. Besides the philosophy of personhood and the history of post-Kantian philosophy, he is interested in the philosophy of digitalization.

Malte Rehbein is a full professor of Digital Humanities with a specific focus on historical studies at Passau University, Germany. His research interests include computational and digital history, historical data studies, data modeling and digital editing, cultural artefact digitization, philosophy of science, ethics, and environmental humanities.