Discussion

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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

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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 specialty of social relations. The same applies to a number of further notions. The place of understanding notions becomes the specialty 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

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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

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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

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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

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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 max[91]imum 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

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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 hyper-scalers 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, to 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

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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.

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