



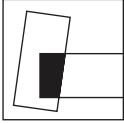
Xenofon Kontargyris

# IT Laws in the Era of Cloud Computing

A Comparative Analysis between EU and US Law  
on the Case Study of Data Protection and Privacy



**Nomos**



Albrecht Mendelssohn Bartholdy  
Graduate School of Law

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***To my parents, who have been my greatest supporters even at times that I did not believe so strongly in myself.***

*Στους γονείς μου, που πιστεύουν πάντα σε μένα ακόμα κι όταν ο ίδιος δεν πιστεύω τόσο δυνατά στον εαυτό μου.*

***To my brother, who made sure that over the past three years no emergency would distract me from my goal.***

*Στον αδερφό μου, που τα τρία αυτά χρόνια δεν επέτρεψε σε απρόοπτα να με αποσπάσουν από το στόχο μου.*



## Foreword

I do not consider myself a genius. Over the course of my studies I have had the good fortune to meet and collaborate with colleagues and teachers who have razor sharp minds for science; I certainly do not feel I am one of them. Therefore, I am not one of those researchers who had been confident that they would sit down and conduct a PhD since their first day at University. Nevertheless, I have been lucky enough to be inspired and encouraged in the course of my academic life by friends, colleagues and teachers who saw potential in me and made me believe that everything is possible with hard, systematic work. Through this note, I would like to express my heartfelt gratitude firstly to Prof. Trute for giving me the chance to undertake this particular project despite the interdisciplinary challenges it posed for a lawyer; to Prof. Schulz for being an excellent second supervisor helping me to maintain the dual approaches between law and IT and between EU and US law that the challenge I had set up for myself necessitated; to Prof. Papadopoulou from my alma mater, the Aristotle's University of Thessaloniki, for offering me as much help and support as possible in order to remain academically sharp while I was looking for a suitable opportunity to conduct a project as demanding as an interdisciplinary PhD; to my ex-colleagues at Apogee Information Systems, my first full-time employer and at the Directorate General for Media at the European Commission for facilitating my curiosity to get to know the real meaning of terms such as 'software', 'data processes', 'cloud-based systems' etc., which are always intriguing for an IT lawyer but require a lot more than a strong legal background in order to tackle regulatory challenges associated to them. And last but not least, I wish to cordially thank all those classmates and teachers from my school years and the colleagues, friends and teachers from my university years who helped me build the confidence it took to make it from high school to my LLB study, then on to my LLM and further onwards to my PhD term. Regardless of degrees and titles, all these people and experiences have taught me that everything is possible if you are determined to fight for it. And this is a lesson I will cherish for life!

*Foreword*

This work has been finalized on 27 September 2017. All its contents and arguments should be read in light of the legal status quo applicable at that time.

PS: Grandma, I know you are happy about this. I promise you I will not stop here!

Hamburg, 27. September 2017



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# List of abbreviations

(in alphabetical order)

|   |       |
|---|-------|
| Amazon Web Services                                 | AWS   |
| Application Programming Interface                   | API   |
| Application Service Provision                       | ASP   |
| Artificial Intelligence                             | AI    |
| Asian-Pacific Economic Cooperation                  | APEC  |
| Binding Corporate Rules                             | BCR   |
| Charter of Fundamental Rights of the European Union | CFREU |
| Chief Executive Officer                             | CEO   |
| Cloud Service Provider                              | CSP   |
| Communication as a Service                          | CaaS  |
| Communications Decency Act                          | CDA   |
| Community Based Participatory Research              | CBPR  |
| Customer Relationship Management                    | CRM   |
| Data as a Service                                   | DaaS  |
| Data Protection Directive (European)                | DPD   |
| Digital Millennium Copyright Act                    | DMCA  |
| Electronic Communications Privacy Act               | ECPA  |
| European Convention on Human Rights                 | ECHR  |
| European Economic Area                              | EEA   |
| European Union                                      | EU    |
| Fair Credit Reporting Act                           | FCRA  |
| Federal Trade Commission (US)                       | FTC   |
| Foreign Intelligence and Surveillance Act           | FISA  |
| General Data Protection Regulation (European)       | GDPR  |
| Hardware as a Service                               | HaaS  |
| Health Insurance Portability and Accountability Act | HIPAA |
| Information & Communications Technology             | ICT   |
| Information Technology                              | IT    |
| Infrastructure as a Service                         | IaaS  |

*List of abbreviations*

|   |                 |
|---|-----------------|
| Internet Corporation for Assigned Names and Numbers   | ICANN           |
| Internet of Things  | IoT             |
| Internet Service Provider(s)  | ISP(s)          |
| Local Area Network  | LAN             |
| National Institute of Standards and Technology  | NIST            |
| Official Journal (of the European Union)  | OJ              |
| Operating System  | OS              |
| Organization for Economic Co-operation and Development  | OECD            |
| Platform as a Service   | PaaS            |
| Platform for Privacy Preferences Project  | P3P             |
| Privacy Enhancing Technologies  | PETs            |
| Remote Computing Service  | RCS             |
| Secure Sockets Layer  | SSL             |
| Service Oriented Architecture   | SOA             |
| Service as a Service  | SaaS            |
| Software as a Service   | SaaS            |
| Stored Communications Act   | SCA             |
| Terms of Service (agreement)  | ToS (agreement) |
| Transport Layer Security  | TLS             |
| Treaty on the European Union  | TEU             |
| United Nations Commission on International Trade Law  | UNCITRAL        |
| United Nations Universal Declaration of Human Rights  | UDHR            |
| United States (of America)  | US(A)           |
| United States of America: Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act | USA PATRIOT Act |
| Virtual Machine(s)  | VM(s)           |