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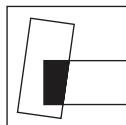
Xenofon Kontargyris

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)