

Camilla Crea | Alberto De Franceschi (Eds.)

The New Shapes of Digital Vulnerability in European Private Law



Nomos

Camilla Crea | Alberto De Franceschi (Eds.)

The New Shapes of Digital Vulnerability in European Private Law

Prefaces by
Frank Pasquale and Oreste Pollicino



Nomos

This volume is funded by the Italian Ministry of University and Research as a 'Research Project of National Interest (PRIN) 2020XBFME2'

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at <http://dnb.d-nb.de>

1st Edition 2024

© The Authors

Published by
Nomos Verlagsgesellschaft mbH & Co. KG
Waldseestraße 3–5 | 76530 Baden-Baden
www.nomos.de

Production of the printed version:
Nomos Verlagsgesellschaft mbH & Co. KG
Waldseestraße 3–5 | 76530 Baden-Baden

ISBN 978-3-7560-1632-7 (Print)
ISBN 978-3-7489-4091-3 (ePDF)
DOI <https://doi.org/10.5771/9783748940913>



Online Version
Nomos eLibrary



This work is licensed under a Creative Commons Attribution – ShareAlike 4.0 International License.

Table of Contents

Authors' profiles 9

Camilla Crea, Alberto De Franceschi

'Digital Vulnerability in European Private Law' – Towards Digital
Fairness 17

PREFACES

Frank Pasquale

Enforcing and Expanding Legal Protections for Vulnerable Subjects 21

Oreste Pollicino

Vulnerability in the Digital Age 25

PART I Digital Vulnerability as a Paradigm for Consumer Law

Catalina Goanta, Giovanni de Gregorio, Jerry Spanakis

Consumer Protection and Digital Vulnerability: Common and
Diverging Paths 31

Fabrizio Esposito

Investigating Digital Vulnerability with Theories of Harms: A
Methodological Proposal with Three Illustrations 53

Emilia Mišćenić

Information, Transparency and Fairness for Consumers in the
Digital Environment 89

Table of Contents

Mateja Durovic, Eleni Kaprou

The New Concept of Digital Vulnerability and the European Rules on Unfair Commercial Practices 127

Niti Chatterjee, Gianclaudio Malgieri

The Metaverse and Consumers' Vulnerabilities 145

Shabahang Arian

Vulnerability in the Age of Metaverse and Protection of the Rights of Users Under EU Law 169

PART II Conceptualizing Digital Vulnerability Beyond Consumer Law

Mateusz Grochowski

Digital Vulnerability in a Post-Consumer Society. Subverting Paradigms? 201

Irina Domurath

Digital Vulnerability as a Power Relation: Hyper- and Hypo-Autonomy and Why Thick Privacy Matters 227

Teresa Rodríguez de las Heras Ballell

Digital Vulnerability and the Formulation of Harmonised Rules for Algorithmic Contracts: A Two-Sided Interplay 259

Jura Golub

Digital Vulnerability of Consumers in the World of Smart Contracts – Is European Private International Law “Digitalised” Enough? 293

Gérardine Goh Escolar

Addressing Digital Vulnerability Through Private International Law 325

Federica Casarosa, Hans-W. Micklitz

Addressing Vulnerabilities in Online Dispute Resolution 351

PART III Contexts and Images of Digital Vulnerable Subjects

<i>Piotr Tereskiewicz, Katarzyna Południak-Gierz, Patryk Walczak</i> The Digital Vulnerability of Insurance Consumers and Personalised Pricing of Insurance Products	383
<i>Alessandra Pera, Sara Rigazio</i> Let the Children Play. Smart Toys and Child Vulnerability	413
<i>Denise Amram</i> Standards to Face Children and Patients Digital Vulnerabilities	439
<i>Isabelle Wildhaber, Isabel Laura Ebert</i> From Digital Vulnerability to Data Anxiety: The Situation of Employees in Digitally Permeated Workplaces	469
<i>Léa Stiefel, Alain Sandoz</i> Design for Agency vs. Vulnerability by Design – The Case of Swiss Agriculture	499

CONCLUSIONS

<i>Reiner Schulze</i> Digital Vulnerability in European Private Law – Conclusions	521
--	-----

Authors' profiles

Denise Amram is a senior Assistant Professor of Comparative Private Law at LIDER Lab – DIRPOLIS Institute L'EMbeDS Department of Excellence at Scuola Superiore Sant'Anna of Pisa (Italy). At LIDER Lab, she coordinates the research lines ETHOS (ETHics and law with and fOR reSearch), Children's Rights, and the Permanent Observatory on Personal Injury Damages. Her research interests include fundamental rights enhancement and protection of vulnerable subjects in different context, especially within the digital dimension.

Shabahang Arian holds a PhD in Law from the Dirpolis Institute of the Scuola Superiore Sant'Anna in Pisa. She is currently an adjunct professor and researcher at University of Tehran where she is dedicated to advancing legal education and fostering innovative research in the field of Law and Technology.

Federica Casarosa is a Research Associate at the Scuola Superiore Sant'Anna (Pisa) and part-time professor at the European University Institute. Since her degree in Private Law (University of Pisa, 2001) and her subsequent PhD in Law (European University Institute, 2008), Federica Casarosa has directed her interests towards the intersection of law and technology, analysing the role of information in consumer contracting, the protection of consumer data and internet users, private regulation in the protection of freedom of expression, and the impact of cybersecurity legislation in private law. She has carried out both teaching and research activities on these topics.

Niti Chatterjee is a seasoned commercial and technology lawyer with over a decade of experience advising multinational corporations. Holding an advanced LLM in Digital Technology Law from Leiden University, Niti specializes in the intersection of law and technology, focusing on ethical practices in the digital realm. Currently based in Luxembourg, she is passionate about promoting the responsible use of technology and advocating for regulatory frameworks that ensure fairness and accountability in the digital landscape.

Camilla Crea is Associate Professor of Private Law at the University of Sannio. She is the founder and Editor-in-Chief of The Italian Law Journal, and serves on the editorial boards of several Italian legal journals and book series. She is the author of monographs and essays on contract law, intellectual property and private law theory, analyzed through historical, comparative and critical perspectives. She has held research and teaching positions at many foreign universities, including the University of Berkeley; Beijing Normal University; Sorbonne Université; Université Cadi Ayyad-Marrakech; Edinburgh Centre for Private Law; Florida International University; Université Paris

Authors' profiles

Nanterre; Université Catholique de Lille; and the École des hautes études en sciences sociales (EHESS).

Alberto De Franceschi is Professor of Private Law, Digital Law and International Trade Law at the University of Ferrara, Ambassador's Chair at the KU Leuven and Distinguished Visiting Professor at the UC Los Angeles. From 2021 to 2023 he was Visiting Professor at the Zhejiang University, Hangzhou. Since 2016 he has been serving as Italian Expert at EU Council, G7 Digital&Technology, UNCITRAL E-Commerce Working Group, Unidroit and the Hague Conference on Private International Law. He is co-editor of the "Journal of European Consumer and Market Law" and of "The Italian Law Journal". He is an Ordinary Member of the Academia Europaea and of the European Academy of Sciences and Art. His research deals with Law of obligations and contracts, with focus on digital economy and sustainability.

Giovanni De Gregorio is the PLMJ Chair in Law and Technology at Católica Global School of Law and Católica Lisbon School of Law. He is also a member of the Católica Research Centre for the Future of Law. His research interests include digital constitutionalism, fundamental rights, technologies and digital policy. Giovanni is the author of the monograph *Digital Constitutionalism in Europe: Reframing Rights and Powers in the Algorithmic Society* (Cambridge University Press 2022).

Irina Domurath is Adjunct Professor of Law at the University Adolfo Ibañez in Santiago de Chile. Previously, she held positions at the Central University of Chile, the University of Amsterdam, and the University of Copenhagen. She researches the effects of market regulation on horizontal relationships, with case studies concerning consumer credit, access to housing, and data protection.

Mateja Durovic is Professor of Law and Co-Director of the Centre for Technology, Ethics, Law and Society (TELOS) at King's College London, where he first worked as lecturer and then as a reader in law. Previous to this, he was an Assistant Professor (2015-2017) at the School of Law, City University of Hong Kong. Dr. Mateja Durovic holds a PhD and LLM degrees from the European University Institute, Italy, LLM degree from the University of Cambridge, UK, and LLB degree from the University of Belgrade, Serbia. Dr. Durovic was a Post-Doc Research Associate at the EUI, Italy (2014-2015), Visiting Scholar at Stanford Law School, USA (2011), and at the Max Planck Institute of Private International and Comparative Law, Hamburg, Germany (2010). Dr. Durovic worked for the Legal Service of the European Commission, as well as a consultant for the European Commission, World Bank, GIZ, BEUC and the United Nations. The work of Dr. Durovic was published in leading law journals and by most prominent publishers. He is a member of the European Law Institute, Society of Legal Scholars and Society for European Contract Law.

Isabel Laura Ebert is a Senior Research Fellow at the Institute for Business Ethics and Institute for Work and Employment Research, University of St. Gallen, and serves as a Strategic Adviser to the United Nations Office of the High Commissioner for Human Rights B-Tech Project, focusing on Business & Human Rights in the technology

sector. Her research explores regulatory and policy responses to emerging human rights challenges connected with technology company conduct and implications for policy coherence. Isabel received a PhD in Business Ethics from the University of St. Gallen.

Fabrizio Esposito is a Bocconi and EUI alumnus and Associate Professor of Private at the NOVA School of Law (Lisbon). His 40+ publications combine doctrinal analysis, especially of EU consumer and regulatory law, with economics and other disciplines. His monograph, *The Consumer Welfare Hypothesis in Law and Economics*, opens a new path in 'law and economics'. He has co-edited three volumes, including the forthcoming *Cambridge Handbook on Algorithmic Price Personalization and the Law*. Fabrizio sits on the Consulting Board of the *European Review of Contract Law* and acts as class representative in two class actions against Big Tech companies.

Catalina Goanta is Associate Professor in Private Law and Technology and Principal Investigator of the ERC Starting Grant HUMANads, focused on understanding the impact of content monetization on social media and on reinterpreting private law fairness in the context of platform governance. Between 2016-2021 she was Assistant Professor at the Faculty of Law at Maastricht University, and during February 2018 - February 2019, she was a Niels Stensen fellow and visited the University of St. Gallen (The Institute of Work and Employment) and Harvard University (The Berkman Center for Internet and Society). She is also a non-residential fellow of the Stanford Transatlantic Technology Law Forum.

Gérardine Goh Escolar is Deputy Secretary General of the Hague Conference on Private International Law (HCCH), and Head of its International Commercial, Digital and Financial Law Division. Dr Goh Escolar is Full Professor (Adjunct) and Academic Fellow at the Centre for Technology, Robotics, Artificial Intelligence and the Law (TRAIL) at the Faculty of Law of the National University of Singapore.

Jura Golub, LL.M., is a Research Assistant at the Faculty of Law Osijek, Croatia, and a PhD Candidate under the Croatian Science Foundation's program "Young Researchers' Career Development Project – Training of New Doctoral Students." He teaches seminar classes in Private International Law at the Faculty of Law Osijek. His research focuses on the digitalization of law, particularly on issues related to digital assets from both substantive and conflict-of-law perspectives. Jura has presented at several international scientific conferences, including those at Radboud University, the University of Milan, the University of Ferrara, the National University of Singapore, and Royal Holloway, University of London. As a recipient of a British Scholarship Trust award, he completed a two-month research stay at King's College London, The Dickson Poon School of Law. He is also the author of several scientific and professional papers.

Mateusz Grochowski is an Associate Professor of Law at Tulane University School of Law and an Affiliated Fellow at the Information Society Project at Yale Law School. His research focuses on the intersections of digital market and contract law theory, the protection of weaker market participants, and the comparative study of US-EU consumer protection and regulation of digital markets. He is a member of the editorial boards of

Authors' profiles

the “Rabel Journal of Comparative and International Private Law” and the “Journal of European Consumer and Market Law”, as well as a member of the consulting board for the “European Review of Contract Law”.

Eleni Kaprou is a senior lecturer in Business Law in Queen Mary University of London since 2022. Prior to that she held posts in Brunel University and Cardiff. Eleni has also served as a consultant on EU projects and taught on executive programmes for civil servants. Eleni’s research interests lay in European private law with a focus on vulnerable subjects. She has written on consumer vulnerability, aggressive practices and retail financial services among others. Currently she is working on aggressive practices in the digital environment.

Gianclaudio Malgieri is an Associate Professor of Law & Technology at Leiden University (the Netherlands) and a board member of the eLaw Center for Law and Digital Technologies. He serves as the Co-Director of the Brussels Privacy Hub, an Associate Editor of Computer Law and Security Review, and the founder of “VULNERA“, the International Observatory of Vulnerable People in Data Protection. He conducts research on and teaches Data Protection Law, AI regulation, Fundamental Rights in the Digital Age, Legal Vulnerability. He is the author of “Vulnerability and Data Protection Law” (Oxford University Press, 2023). Gianclaudio has authored over 70 publications, including articles in leading international academic journals. His works have been cited by, inter alia, top international newspapers (The New York Times, The Washington Post, Le Monde, Politico, La Tribune, France Culture, ilSole24Ore, la Repubblica, il Corriere della Sera, Euractiv).

Hans-W. Micklitz is Part-time Professor of Economic Law, European University Institute, Florence Italy, full-time between 2007 and 2019, formerly Professor at the Berlin School of Business and the University of Bamberg (Germany), visiting scholar at the universities of Bologna (Italy), Columbia (USA), Florence (Italy), Helsinki (Finland), Michigan (USA) and Oxford (UK), ERC Grant 2011-2016 on European Regulatory Private Law, Grant Academy of Finland, 2017-2022 on External Dimension of European Private Law, research on European and transnational private law, compulaw, legal theory.

Emilia Mišćenić, Dr. iur. (KFU Graz), LL.M. (Saarland) is a full professor at the Faculty of Law, University of Rijeka. For her academic work in the field of European private law and consumer protection, she has been awarded by the Croatian National Science Award, the Award of the University of Rijeka Foundation, the Award of the Republic of Croatia Ivan Filipović and many others. Her work has contributed to AG’s legal opinions in cases such as Pereničová and Perenič, Meta Platforms Ireland and UFC, Que choisir and CLCV AG. She is a co-chair of the award-winning European Law Institute Croatian Hub, and a head of the University of Rijeka project “Transparency and Fairness in the Digital Environment” (uniri-iskusni-drustv-23-101).

Frank Pasquale is Professor of Law at Cornell Law School and Cornell Tech. He is an expert on the law of artificial intelligence (AI), algorithms, and machine learning. His

books include *The Black Box Society* (Harvard University Press, 2015) and *New Laws of Robotics* (Harvard University Press, 2020). His work has been translated into over a dozen languages. His present research is focused on affective computing, the political economy of automation, and AI in the public sphere.

Alessandra Pera is PhD in Comparative Law and Full Professor at Palermo University-Department of Political Science and International Relations. Her research focuses on family law, ADR systems and protection of vulnerable individuals and groups. Member of the International Society of Family Law (ISFL), the Italian Association of Comparative Law (AIDC) and *Juris Diversitas*. She has been visiting at the IALS University of London, the Cape Town University, the Rey Juan Carlos University of Madrid, the Hanu-Hanoi University. Member of the Editorial board of *Comparazione e Diritto Civile*, *Comparative Law Review*, *International Journal of Law and Society*, *Cardozo Electronic Law Bulletin*.

Oreste Pollicino is Professor of Constitutional Law at Bocconi University. His research interests focus on European and Comparative Constitutional Law, and Digital Constitutional Law. He is the Director of the LL.M. in Law of Internet Technologies at Bocconi University. He has been appointed by the European Commission for the negotiation on the 'European code of practice on disinformation'. He is also member of the Executive Board, European Union Agency for Fundamental Rights, and of the European Commission Sounding Board of the Multistakeholder in the fight against online disinformation. He is participant to the Council of Europe Ad Hoc Committee on Artificial Intelligence (CAHAI), and Italian member of the OECD Global Partnership on Artificial Intelligence.

Sara Rigazio is PhD in Private Law, holds a LL.M. from the University of Minnesota Law School and is Assistant Professor of Private Law at the department of Political Sciences and International Relations at the University of Palermo. She has been visiting fellow at the Norwegian Center for Computer and Law at the University of Oslo. She has published several articles and a book on family law, national and international child protection, legal design and the relationship with new technologies.

Katarzyna Południak-Gierz Ph.D. (Jagiellonian University in Kraków) is a senior lecturer at the Jagiellonian University's Private Law Department. Her academic interests focus on the interplay between private law and technology. She researches private law reactions towards the use of personalization techniques in consumer contracts and the possibility of using granularity to increase the ecological efficiency of sales law.

Teresa Rodríguez de las Heras Ballell is Full Professor of Commercial Law at University Carlos III of Madrid, Spain. She was Sir Roy Goode Scholar at Unidroit 2021–22. She is the Delegate of Spain at UNCITRAL for WGs VI, IV (on AI in international trade) and I, and an Expert for UNCITRAL and Unidroit on digital economy projects. Arbitrator. Member of the Austrian Academy of Sciences. Member of the European Commission Expert Groups on Liability and New Technologies, for the Observatory

Authors' profiles

on Online Platform Economy, and on B2B Data Sharing. Member of the ELI Executive Committee and Council, and co-reporter of ELI Algorithmic Contracting Project.

Alain Sandoz holds a MSc in mathematics from Neuchâtel University and a PhD in computer science and distributed information systems engineering from EPFL, Lausanne. His interests are related to distributed information systems design and implementation; the role of scale and complexity in innovation strategy; and information infrastructures. He is lecturer and professor at Neuchâtel University and has been teaching informatics and strategy at higher education institutions in Switzerland since 1995.

Reiner Schulze is Professor Emeritus of German and European Civil Law and Director of the Centre for European Private Law at the University of Münster, Germany. He is a founding member of the European Research Group on Existing EC Private Law and the European Law Institute, as well as foreign member of the Italian Accademia Nazionale dei Lincei and the Spanish Real Academia de Jurisprudencia y Legislación. He has published extensively in the field of European private law, contract and consumer law, and digital law with books including *European Contract Law* (3rd edn, co-written with Fryderyk Zoll), *EU Digital Law* (2nd edn, co-editor with Dirk Staudenmayer), and *Bürgerliches Gesetzbuch Handkommentar* (12th edn).

Gerasimos (Jerry) Spanakis is an assistant professor in machine learning and data mining at Maastricht University. His current work lies in the area of Social Computing and includes computational social media modeling, dialogue systems (conversational agents) and information retrieval. More specifically, he is interested into using Large Language Models (like chatGPT) in a controlled way and build useful applications that have added value for all relevant stakeholders, especially for the legal domain. He is the PI for the VOXReality H2020 project, co-organizes the Natural Legal Language Workshop, and serves as a senior expert for the European Commission's e-enforcement academy project.

Léa Stiefel holds a PhD in Social Sciences in the field of STS and Digital Studies. Her thesis, defended and awarded at the University of Lausanne in 2023, focused on the Politics of digital architectures. She currently works as a research fellow at the Swiss Competency Centre for Penal Sanctions (cscsp.ch) in Fribourg and is also vice-president of IRIN (irin.ch), an independent research institute on digitisation based in Bulle.

Piotr Tereszkiewicz Ph.D. (Jagiellonian University in Kraków), M.Jur (Oxford), is a professor at the Jagiellonian's University Private Law Department, an adjunct professor at Cornell Law School and a senior affiliated researcher at the University of Leuven (KU Leuven). His research interests include private law, law and economics, insurance law and financial services in a comparative and international perspective. He was

Deputy Chair of the Scientific Advisory Committee at the Financial Ombudsman in Poland (2019–2021).

Patryk Walczak is a PhD Candidate at the Jagiellonian University in Kraków, Poland.

Isabelle Wildhaber, LL.M. (Harvard Law School), is a Full Professor for Private and Business Law at the University of St. Gallen and the Executive Director at the Institute for Work and Employment Research (FAA-HSG) at the University of St. Gallen in Switzerland. Isabelle Wildhaber is admitted to the Bar in Switzerland and to the Bar in New York First Department, having previously worked for Swiss and American law firms in Basel, New York and Frankfurt a.M.

‘Digital Vulnerability in European Private Law’ – Towards Digital Fairness

Camilla Crea, Alberto De Franceschi

Vulnerability has emerged in legal discourse, in dialogue with other disciplines, as a useful concept to capture the fluid and multilayered nature of the human condition and to question the adequacy of some foundational legal and policy norms.

Yet, despite the potential of the notion of vulnerability as a key tool to overcome the limits of legal formalism and paternalism and to foster substantive equality, the legal status and effects of the notion under domestic and European laws are still quite unclear. Moreover, the notion of vulnerability has only seldom been applied to the specific forms of exposure to harm that might arise from interaction with digital technologies. In our current and pervasively digitalized world, it is however necessary to analyze how digital technologies impact preexisting forms of vulnerability or create new ones, and to understand how the law can prevent or address unequal experiences of technology. The current situation calls for legal perspectives and responses actively implementing humanist values and vulnerability-driven solutions.

This is what the Research Project on ‘Digital Vulnerability in European Private law’ (DiVE), funded by the Italian Ministry of University and Research as a ‘Research Project of National Interest’,¹ aims to do. In particular, the Project seeks to investigate the notion of digital vulnerability, by exploring how it stands vis-à-vis traditional paradigms of protection of weaker parties (such as rules on incapacity, consumer protection, data protection, anti-discrimination and equality before the law) and to what extent it might properly capture harms stemming from digital technologies.

Furthermore, the Project aims to test to what extent current rules adequately deal with personal conditions in which digital technology might prove particularly disruptive and challenging for the persons involved, and to assess how national and European legal principles, rules and policies could be aligned, reimagined and shaped in order to properly translate the

1 Progetto di Ricerca di Interesse Nazionale (PRIN) - Project 2020XBFME2.

Camilla Crea, Alberto De Franceschi

notion of digital vulnerability into justiciable issues, that is, into claims for special legal protection. The European legal framework is notably seeking to act as a standard setter in the digital economy, trying to address a great number of Private Law aspects affected by technology (e.g., Privacy, Contract and Tort Law).

Therefore, this volume represents the first step within an ongoing research project that seeks: to give a more concrete meaning to the necessarily fluid concept of digital vulnerability and to clarify how the notion might be applied both on a descriptive and prescriptive level; to identify personal and situational factors that are most often linked to a condition of digital vulnerability and to provide assessment tools for diagnosing, preventing and addressing situations of digital vulnerability; to identify effective measures/remedies to ensure the utmost protection of those who may be digitally vulnerable against emerging technological threats; to help transformatively reconsider traditional private law micro- and macro-categories revolving around the notion of digital vulnerability, challenging traditional legal taxonomies.

This volume collects the papers presented and discussed at the opening conference of the project, which took place at the University of Ferrara on 15 and 16 June 2023, where the authors of the contributions exchanged their thoughts.

We would like to express our warm thanks to Frank Pasquale and Oreste Pollicino for their inspirational and detailed prefaces, as well as to Reiner Schulze for his brilliant conclusions.

Our gratitude also goes to all the distinguished Authors for their enthusiastic and valuable contributions to this volume, and to the members of the ‘Digital Vulnerability in European Private law’ (DiVE) project, including, further to the two editors of this volume, Marta Infantino (Principal investigator, University of Trieste), Claudia Amodio (University of Ferrara), Amalia Diurni (University of Rome Tor Vergata), Luca Ettore Perriello (Polytechnic University of Marche) and Loredana Tullio (University of Molise) for the inspiring cooperation.

Camilla Crea & Alberto De Franceschi

PREFACES

Enforcing and Expanding Legal Protections for Vulnerable Subjects

Frank Pasquale

Technological advance is almost always a double-edged sword. The same AI that can propose different chemical compounds for medicinal purposes can also suggest new poisons. Advertising targeting software may be immensely useful, but may also take advantage of vulnerabilities (by, for example, marketing cosmetics to a person when it calculates they are feeling most unattractive). Generative AI creates an enormous range of useful images, but also dramatically reduces the cost of disinformation.

Is there a way to encourage the positive side of digital advance, while curbing its negative effects? If so, law is among the most important tools for achieving this end. In *The New Shapes of Digital Vulnerability in European Private Law*, Camilla Crea and Alberto De Franceschi have assembled a remarkable set of authors to chart the path forward. The authors in this volume both propose expanded enforcement of extant law, and postulate important new protections. While I cannot convey the breadth of their contributions in a brief preface, I describe below a set of perspectives in the volume that illustrate one particular achievement of this collection – its simultaneously solid grounding in present controversies and ambitious aspirations toward a better future.

Emilia Mišćenić has starkly laid out the stakes of the present inquiry in her chapter, *Information, Transparency and Fairness for Consumers in the Digital Environment*. As she observes, “Despite the existing legal framework, businesses are only purportedly complying with legal rules. More often than not, they are circumventing or ignoring the requirements of EU consumer law related to mandatory information duties and transparency.” This is an important diagnosis, justifying further inquiry into both improved enforcement and reform of present legal authorities.

In terms of law reform, Mateja Durovic and Eleni Kaprou recognize that “digital asymmetry captures the position of imbalance between traders and consumers online, alongside the embedded vulnerability of consumers.” They argue in *The New Concept of Digital Vulnerability and the European Rules on Unfair Commercial Practices* that “more holistic and extensive

Frank Pasquale

reform of the [Unfair Commercial Practices Directive] will be required to thoroughly adapt consumer law regulations to the fluctuating digital economy.” This is an important level-setting, establishing the stakes of vulnerability-related legislation and the importance of advancing it.

Federica Casarosa and Hans-W. Micklitz expertly state the case for caution with respect to online dispute resolution systems, especially with respect to the disabled and impoverished. Their chapter *Addressing Vulnerabilities in Online Dispute Resolution* recognizes both the uses and shortcomings of digital literacy approaches. They articulate three dimensions of digital asymmetry which must be at the core of future legislation and enforcement in the area. First there is relational asymmetry, “due to the position [consumers] have in a complex digital environment where equal interaction is made impossible.” The old problem of “one-shot” versus “repeat players,” noted in Marc Galanter’s *Why the Haves Come Out Ahead*, is profoundly exacerbated in massive platforms which are older than a fair number of their users—and more powerful than nearly all of them. Second, there is architectural asymmetry, which is only belatedly and partially addressed by restrictions on dark patterns and similar forms of manipulation via interface. Third, they analyse the problem of knowledge-based asymmetry, where “the trader benefits from detailed insights about the consumer while the consumer often knows - or understands - very little about how the trader and the service operate.” Large platforms may base their calculations on billions of transactions, while consumers have far less information—and, in concentrated commercial environments, few “exit” options to alternative providers.

Recognizing this knowledge-based asymmetry, Irina Domurath’s philosophically sophisticated chapter articulates the importance of privacy to help level the informational playing field. Many forms of manipulation are based on intimate knowledge of a consumer or worker. Privacy law is not simply about informational self-governance, but also helps reduce the ability of other entities to erode the data subject’s autonomy. Domurath proposes “that the concept of digital vulnerability could be stronger if it were to conceptualize the idea of privacy as the very foundation for any human action (including consumer choice).” This is a thought-provoking challenge to surveillance capitalism, logically extending Shoshana Zuboff’s critique of behaviorism by deeply considering the foundations of the philosophy of action. Real human action (or human agency, in Charles Taylor’s framing), rather than mere conditioned response, is premised on free

will, which is in turn dependent on some Goffman-ian “off-stage” space to reflect and plan free of any entity’s prying eyes or sensors.

To be sure, critics of liberal individualism might characterize such a space as a fantasy. As Hans-Georg Gadamer recognized, we are always already socially formed in our aspirations and ideals. Nevertheless, we should also recognize that, as Jordan Stein has argued, a fantasy “picks us up and dusts us off and allows us to say to ourselves...I am not (or, as the case may be, I am) that kind of person, this action is not (or, again, is) part of the pattern, often called a personality, that adds up to me as the person I recognize myself to be.”¹ The fantasy of self-governance beyond the scope of market imperatives may operate as an ever-receding, and yet still hope-inspiring, horizon of vulnerability studies. Certainly no one can blame today’s oft-manipulated consumers for chasing such a dream, however often the grim realities of online commerce dash its realization.

Fabrizio Esposito’s conception of “hyper-engaging” practices as particularly manipulative nudges (in his chapter *Investigating Digital Vulnerability with Theories of Harms*) illuminates the stakes of such aspirations in a particularly perceptive manner. The work of thinkers ranging from Jonathan Haidt (*The Anxious Generation*) to Lauren Berlant (particularly with respect to their theory of “cruel optimism”) should motivate sophisticated commentators to reconsider liberal scholars’ almost blanket rejection of critical theories of false consciousness. Left unresisted, hyper-engagement ultimately defeats more grounded, authentic, and valid aspirations.² Moreover, new technology is constantly expanding the potential reach of hyper-engagement. For example, as Niti Chatterjee and Gianclaudio Malgieri argue, the type of wearables marketed for metaverse engagement could easily “exacerbate existing areas of concern, transforming minor vulnerabilities into major threats.” Along with Shabahang Arian in this volume, they presciently advance the digital vulnerability field into virtual reality.

Mateusz Grochowski’s chapter also skillfully extends the scope of aspiration in the field of digital vulnerability. He convincingly argues that consumer protection laws must move beyond a purely economic focus, to address non-economic experience (including emotional and social well-be-

1 Jordan Alexander Stein, *Fantasies of Nina Simone* (Duke University Press, 2024), 11.

2 David Golumbia and Frank Pasquale, “From Public Sphere to Personalized Feed: Corporate Constitutional Rights and the Challenge to Popular Sovereignty,” in *Human Rights after Corporate Personhood*, edited by Jody Greene & Sharif Youssef (Toronto: Univ. of Toronto Press, 2020).

Frank Pasquale

ing). Grochowski observes that “EU consumer law has never developed a systematic framework for including non-economic interests and non-economic harm,” despite an “expansion of the digital economy” that has “made this deficit particularly vivid and troublesome.” This insight should be taken seriously by EU policymakers, particularly as the field of affective computing advances to develop more sophisticated methods of simulating and stimulating emotions.³ But these same policymakers deserve credit for advancing regulation in a way that opened up space for legal academic consideration of the proper scope and force of consumer protection law.

This volume demonstrates a remarkable symbiosis between policy-oriented legal academic work, and more theoretical and philosophical scholarship. Because Europe has taken on the challenge of digital vulnerability in its privacy and consumer protection laws, it has sparked a number of fascinating inquiries into the nature of manipulation, fair trade, and commercial ethics. Meanwhile, because of the existence of this substantial body of literature, those developing new regulations and applying them are privy to deeply considered analyses of the strength and limits of the vulnerability concept. This is a virtuous cycle to which the present volume makes a sterling contribution. I congratulate the editors and authors on their remarkable capacity to refine our normative understanding of asymmetries of power and harm in online contexts, while proposing concrete advances in the legal regime meant to address these asymmetries.

3 Frank Pasquale, “Affective Computing at Work: Rationales for Regulating Emotion Attribution and Manipulation,” in *Artificial Intelligence, Labour and Society*, edited by Aida Ponce del Castillo (Brussels: ETUI Press, 2024).

Vulnerability in the Digital Age

Oreste Pollicino

Vulnerability in the digital age is primarily connected to the evolving digitisation of societies. Despite the benefits brought by technologies, particularly artificial intelligence, however, this new technological eco-system has also amplified the questions for fundamental rights and freedoms, inevitably touching on the issues of vulnerability. It is interesting how this concept has increasingly evolved not only within the scope of constitutional law and digital constitutionalism, but particularly within the framework of European law, where this concept has emerged as a compelling area to reassess the existing legal protections and challenges faced by individuals and entities interacting with digital systems. Therefore, this book, *The New Shapes of Digital Vulnerability in European Private Law*, edited by Crea and De Franceschi, provides a timely analysis of the multifaceted nature of digital vulnerability, its implications, and the evolving responses of European legal frameworks.

At the heart of digital vulnerability is the recognition that technological developments, from algorithmic decision-making to the pervasive use of artificial intelligence, have shifted traditional power dynamics. These shifts create asymmetries between the providers and users of digital services, raising questions about fairness, transparency, and accountability. The increasing reliance on automated systems, smart contracts, and personalised services means that individuals in their position of consumers, workers, or citizens, are exposed to risks that often exceed their ability to understand or control them.

In the chapter by Goanta, De Gregorio, and Spanakis, *Consumer Protection and Digital Vulnerability: Common and Diverging Paths*, the authors address how the traditional concept of the “average consumer” is no longer adequate in the face of digital markets. They argue that the stereotyped consumer personas, as reflected in the Unfair Commercial Practices Directive, fail to account for the structural asymmetries exacerbated by mass consumer surveillance and harmful profiling. Their contribution not only explores the theoretical implications of digital vulnerability but also critical-

Oreste Pollicino

ly reflects on practical case studies, calling for a system-level rethinking of European consumer protection law to address these complex issues.

Rodriguez de las Heras Ballell, in *Digital Vulnerability and the Formulation of Harmonised Rules for Algorithmic Contracts: A Two-Sided Interplay*, delves into the specific vulnerabilities introduced by algorithmic contracting. The author coins the term “algorithmic vulnerability” to describe how automation processes, while offering potential benefits such as efficiency and personalisation, also intensify existing vulnerabilities, particularly for consumers. This chapter highlights the duality of automation’s impact, exacerbating vulnerabilities on one hand, while potentially offering mechanisms to address them on the other, also calling for harmonised rules to navigate this complex legal terrain.

The contribution by Arian, *Vulnerability in the Age of Metaverse and Protection of the Rights of Users Under EU Law*, outlines some of the emerging issues relating to interaction in the metaverse, the challenges it presents to users, and explores the legal and regulatory landscape of marketing in this digital environment, in particular analysing the rights of “vulnerable consumers” such as children and, more in general, assessing whether the metaverse dimension may exacerbate the vulnerabilities of vulnerable users by subliminally influencing their decisions in ways that may not serve their best interests.

In a related exploration of algorithmic automation, Golub’s chapter, *Digital Vulnerability of Consumers in the World of Smart Contracts – Is European Private International Law “Digitalised” Enough?*, examines how smart contracts pose new legal challenges. The author questions whether European private international law is adequately equipped to handle these challenges and explores the need for adaptations in conflict-of-law protection to ensure that consumers, as the weaker party, are not unduly disadvantaged in these digital transactions.

The cross-border nature of digital interactions adds further complexity to the issue of vulnerability, as explored in the chapter by Goh Escolar, *Addressing Digital Vulnerability Through Private International Law*. This contribution addresses the uncertainties and gaps in jurisdictional and legal frameworks that arise from digitalisation. By discussing practical cases such as distributed storage mechanisms, digital currencies, and AI-driven contracting, the chapter illustrates how private international law must evolve to address the unique vulnerabilities inherent in a highly digitised global economy.

Tereszkiewicz, Południak-Gierz, and Walczak, in their chapter *The Digital Vulnerability of Insurance Consumers and Personalised Pricing of Insurance*, address the intersection of digital vulnerability, data protection, and personalised pricing in the insurance industry. Their analysis highlights how personalised pricing, when not properly regulated, can deepen consumer vulnerabilities and potentially violate GDPR provisions. They also examine whether such practices can be covered by the Unfair Commercial Practices Directive, pointing to the need for a more robust integration of data protection within consumer law.

Also, children and other vulnerable groups are particularly exposed to digital risks, as discussed in the chapter by Pera and Rigazio, *Let the Children Play. Smart Toys and Child Vulnerability*. Their examination of the digital vulnerability of children through the lens of smart toys underscores the need for specific legal protections tailored to the unique risks that digital environments pose to minors.

The medical field also faces its own set of digital challenges, as Amram explores in *Standards to Face Children and Patients Digital Vulnerabilities*. This chapter highlights the importance of establishing standards and methodologies that address the vulnerabilities of children and patients within digital care environments. It further discusses how digitalisation in healthcare necessitates new balances between care obligations and the protections afforded by the legal framework.

Workplace vulnerability is another pressing issue, as Wildhaber and Ebert discuss in *From Digital Vulnerability to Data Anxiety: The Situation of Employees in Digitally Permeated Workplaces*. Their empirical study on the impact of digital technologies on employees across various industries in Switzerland reveals how algorithmic management tools exacerbate feelings of vulnerability among workers. Their chapter suggests potential reforms, including strengthening collective representation and ensuring duty of care towards employee well-being.

The digitalisation of industries extends even to agriculture, as explored by Stiefel and Sandoz in *Design for Agency vs. Vulnerability by Design – The case of Swiss Agriculture*. Their contribution on the Swiss agricultural sector illustrates how competing digital platforms can create vulnerabilities for farmers and organisations alike, especially in terms of data management, centralisation, and trust.

In the concluding chapter, *Digital Vulnerability in European Private Law*, Schulze synthesises the various perspectives explored throughout the book and frames digital vulnerability as a cross-cutting issue for European pri-

Oreste Pollicino

vate law. He also underlines the role of the Digital Services Act which provides instruments to address some of the unsolved questions related to vulnerability in the digital age.

This edited collection provides indeed a comprehensive overview of the new shapes of digital vulnerability in European private law, also touching on critical questions for constitutional law. It offers critical insights into the challenges posed by digitalisation and proposes pathways for reform.