Today, public space has become a fruitful venue for surveillance of many kinds. Emerging surveillance technologies used by governments, corporations, and even individual members of the public are reshaping the very nature of physical public space. Especially in urban environments, the ability of individuals to remain private or anonymous is being challenged.

Surveillance, Privacy, and Public Space problematizes our traditional understanding of “public space”. The chapter authors explore intertwined concepts to develop current privacy theory and frame future scholarly debate on the regulation of surveillance in public spaces. This book also explores alternative understandings of the impacts that modern living and technological progress have on the experience of being in public, as well as the very nature of what public space really is.

Representing a range of disciplines and methods, this book provides a broad overview of the changing nature of public space and the complex interactions between emerging forms of surveillance and personal privacy in these public spaces. It will appeal to scholars and students in a variety of academic disciplines, including sociology, surveillance studies, urban studies, philosophy, law, communication and media studies, political science, and criminology.

Bryce Clayton Newell is an Assistant Professor in the School of Information Science at the University of Kentucky. In his research, he focuses on understanding the impact that surveillance and information and communication technologies (ICTs) have on individuals, society, and the law.

Tjerk Timan is a policy advisor and researcher at TNO, the Netherlands. He has been publishing on topics of policing technologies, surveillance theory and practices, and privacy. Recently, he has co-edited a book on privacy in public space.

Bert-Jaap Koops is Professor of Regulation & Technology at the Tilburg Institute for Law, Technology, and Society (TILT), Tilburg University. In 2016/17, he was Distinguished Lorentz Fellow at the Netherlands Institute for Advanced Study (NIAS). He publishes widely on cybercrime, cyber-investigation, privacy, and data protection, including recently “A Typology of Privacy Spaces” and “Bentham, Deleuze and Beyond.”
Routledge Studies in Surveillance

Kirstie Ball, William Webster, Charles Raab


1 Big Data, Surveillance and Crisis Management
Edited by Chiara Fonio and Kees Boersma

2 Surveillance, Privacy and Public Space
Edited by Bryce Clayton Newell, Tjerk Timan, and Bert-Jaap Koops

3 Surveillance and Democracy in Europe
Kirstie Ball and William Webster
Surveillance, Privacy and Public Space

Edited by Bryce Clayton Newell, Tjerk Timan and Bert-Jaap Koops
Contents

List of illustrations vii
List of contributors viii
Acknowledgements xi

1 Privacy and surveillance in the streets: An introduction 1
   BRYCE CLAYTON NEWELL

2 In the privacy of our streets 16
   CARISSA VÉLIZ

3 Building ivory surveillance towers: Transformations of public space in higher education 33
   SARAH SHOEMAKER AND PATRICK SCHMIDT

4 The changing nature of public space in São Paulo: A taxonomic approach 51
   ANTHONY BOANADA-FUCHS

5 A window into the soul: Biosensing in public 75
   ELAINE SEDENBERG, RICHMOND WONG AND JOHN CHUANG

6 Adverse detection: The promise and peril of body-worn cameras 99
   MICHAEL A. KATELL

7 “The end of privacy as we know it”: Reconsidering public space in the age of Google Glass 119
   OLYA KUDINA AND MELIS BAŞ

8 Revisiting privacy in public spaces in the context of digital vigilantism 141
   DANIEL TROTTER
9 Emergency calls with a photo attached: The effects of urging citizens to use their smartphones for surveillance
   GERARD JAN RITSEMA VAN ECK

10 “I’m a creep, I’m a weirdo”: Street photography in the service of the male gaze
   STUART HARGREAVES

11 Legal standards of location privacy in light of the mosaic theory
   ALEŠ ZAVRŠNIK AND PRIMOŽ KRIŽNAR

12 Surveillance and privacy in North American public spaces
   BRYCE CLAYTON NEWELL, SILVIA DE CONCA AND KRISTEN THOMASEN

*Index*
Illustrations

Figures
3.1 The Double Inversion of University Surveillance 43
4.1 Comparison of two different public spaces 69
9.1 Photograph taken with an Apple iPhone 6 smartphone in London on 17 September 2015 by Benjamin Welle 162

Tables
4.1 Framework developed by Németh and Schmidt (2011) (adapted) 58
4.2 Proposed public space taxonomy (in the variable column, terms with a star are shared with Németh and Schmidt (2007, 2011)) 61
4.3 The taxonomy of public spaces and its hybrid forms 65
5.1 A taxonomy of sensors and potential capabilities 80
Contributors

Melis Bas is a PhD candidate at the Philosophy Department of the University of Twente. She works on a project entitled, “Mediated Public Spaces: Parks and Politics.” In this project, Melis interprets Hannah Arendt as a philosopher of technology, and situates public parks as political agents in our everyday practices of politics.

Anthony Boanada-Fuchs acts as project and academic relations manager at the University of St. Gallen Institute of Management in Latin America (GIMLA). He is also post-doctoral researcher at CASE (Centre for Research on Architecture, Society & the Built Environment) at ETH Zurich and has held other post-doc and visiting positions at the University of Lausanne, University Basel and the University of São Paulo. He completed his PhD at the Graduate Institute of International and Development Studies in Geneva (IHEID), Switzerland.

John Chuang is a Professor at the UC Berkeley School of Information, and Director of the BioSENSE Lab, with research interests in bio-sensory computing applications, security, and privacy.

Silvia de Conca is a PhD Researcher at the Tilburg Institute for Law, Technology, and Society (TILT) at Tilburg University, where she works at the intersection of robotics, artificial intelligence, and privacy. She holds an LL. M. in IT, Media & Communication Law from the London School of Economics and Political Science (London), and an LL.M. with Honors in International and Comparative Law from the University of Roma Tre (Rome). Before starting at TILT, Silvia lived in Mexico, where she was Assistant Professor of Information Technology Law and Intellectual Property Law at the Law Department of the Tec de Monterrey University ITESM (Chihuahua).

Stuart Hargreaves is an Assistant Professor at the Faculty of Law of the Chinese University of Hong Kong, where he is also Director of the LLB Programme and Assistant Dean for Undergraduate Studies. He is a barrister and solicitor (Law Society of Upper Canada). He holds a BA from McGill
University, a JD from Osgoode Hall Law School, a BCL from the University of Oxford, and an SJD from the University of Toronto.

**Michael A. Katell** is a PhD Candidate in data and technology ethics at the University of Washington Information School. His research interests include privacy, digital reputation, digital equity, and the ethical design of information systems.

**Bert-Jaap Koops** is Professor of Regulation & Technology at the Tilburg Institute for Law, Technology, and Society (TILT), the Netherlands. In 2016/17, he was Distinguished Lorentz Fellow at the Netherlands Institute for Advanced Study (NIAS). His main research fields are cybercrime, cyber-investigation, privacy, and data protection.

**Primož Križnar** earned a Bachelor of Laws in 2013 and Master of Laws in 2015. He is currently working as a senior judicial advisor at the District state prosecutor's office in Ljubljana and as a legal researcher at the Institute of Criminology at the Faculty of Law in Ljubljana.

**Olya Kudina** is a PhD candidate at the Philosophy Department of the University of Twente. She works on a project entitled, “Mediated Morality: Google Glass, Sex Selection, and the Complex Interactions between Ethics And Technology.” Her research contributes to conceptualizing the way technologies co-shape human norms and values.

**Bryce Clayton Newell** is an Assistant Professor in the School of Information Science at the University of Kentucky. He is also a licensed attorney (California), a documentary filmmaker, and a former Google Policy Fellow. He specializes in the study of surveillance, information practices, and the use of ICTs in the contexts of policing and irregular migration, with additional research and teaching interests in criminal law, information policy, and technology regulation.

**Gerard Jan Ritsema van Eck** MA is a PhD researcher at the Security, Technology, and e-Privacy (STeP) research group at the University of Groningen. His research focuses on the use of smartphones for participatory surveillance and its impact on the free enjoyment of human rights in public spaces.

**Patrick Schmidt** is Professor and Chair of Political Science at Macalester College. His teaching and research interests span American constitutional law, regulation, and public policy, including higher education and information policy.

**Elaine Sedenberg** is a PhD Candidate at the UC Berkeley School of Information and Co-Director of the Center for Technology, Society & Policy (CTSP). She studies information sharing practices and the legal, ethical, and economic aspects of data access for research purposes.
Sarah Shoemaker graduated from Macalester College with a Bachelor of Arts in Political Science in 2015. She subsequently received a Fulbright award to Malaysia.

Kristen Thomasen is an Assistant Professor of Law, Robotics and Society at the University of Windsor Faculty of Law. She is also a PhD Candidate in Law at the University of Ottawa. Her research explores the legal and social impacts of automated technology, particularly on privacy in public space. Kristen is a member of the Law Society of Alberta. Prior to starting her PhD, Kristen clerked for the Honourable Madam Rosalie Abella at the Supreme Court of Canada, and for the Alberta Court of Queen’s Bench.

Tjerk Timan is a policy advisor and researcher at TNO in the field of privacy, surveillance, and data science. Previously, he held a position as postdoctoral researcher at the Tilburg Institute for Law, Technology, and Society (TILT), where he was engaged in questions around new privacy issues in the 21st century. He has also been a lecturer at the Erasmus University Rotterdam, providing courses on digital humanities, big data, and data visualization. He completed his PhD thesis at the University of Twente in which he investigated emerging and existing technologies of surveillance in urban nightlife districts.

Daniel Trottier (PhD, Queen’s Canada) is an Associate Professor in the Department of Media and Communication at Erasmus University Rotterdam. His primary research interests include user-led forms of monitoring and policing through digital media.

Carissa Véliz is a Research Fellow at the Uehiro Centre for Practical Ethics at the University of Oxford. She completed her doctoral degree (DPhil) in Philosophy at the University of Oxford, writing her dissertation on the ethics and politics of privacy.

Richmond Wong is a PhD Candidate at the UC Berkeley School of Information. His research investigates how speculative and critical design methods can be used to interrogate privacy and other policy-related concerns during the process of technology design.

Aleš Završnik, Doctor of Law (LL.D.), is a Senior Research Fellow at the Institute of Criminology at the Faculty of Law in Ljubljana and Associate Professor at the Faculty of Law University of Ljubljana. Currently, he is EURIAS Research Fellow 2017-2018 at the Collegium Helveticum in Zürich, co-funded by Marie-Sklodowska-Curie Actions (COFUND Programme – FP7).
Acknowledgements

The preparation and editing of this book was made possible by a grant from the Netherlands Organisation for Scientific Research (NWO), project number 453-14-004.
Chapter 1

Privacy and surveillance in the streets
An introduction

Bryce Clayton Newell

Introduction
Privacy in public space is a recurring topic within a variety of academic fields. Even prior to Warren and Brandeis’s (1890) famous call to protect privacy in the face of advancing methods of photography in 1890, new technologies and individual privacy have been in tension with each other. Today, emerging surveillance technologies used by governments, corporations, and even individual members of the public are reshaping the very nature of physical public space and are challenging the ability of individuals to remain private or anonymous in these spaces, especially in urban environments. Within these spaces, we see complex interactions arise between anonymity and identification; between trade/commercial activity, social interaction, and suspicion. Surveillance and privacy intersect in these spaces, and these intersections are significant, especially as information traditionally kept in private physical spaces or personal activities not subject to long-term and aggregate monitoring are recorded and captured by a variety of visual and other sensors embedded in public space.

Personal information and documents that once stayed (physically) protected behind closed doors or inside peoples’ homes are now stored in the cloud (a so-called “digital home” (Irion 2015), albeit with much more porous walls), and this information is also transmitted through physical public space, subject to capture and analysis (consider, for example, the use of cell-tower simulators, or “stingrays”, that mimic cellular towers and capture calls and data in transit over cellular networks). These developments have resulted in a metaphorical “evaporation” of the home (Koops 2014, 247, 256–257), traditionally seen as the bastion of privacy, as a barrier between surveillance and the details of private life. This “evaporation of houses” (Koops 2014, 257) and the increasing accessibility of private information in and from public space is connected to “ubiquitous trackability” because, as this private data spills over into public space, it adds to the digital profiles already being collected by surveillance in these spaces and, in turn, this aggregation makes further analysis possible that can reveal additional “aspects of private life that used to be confined to private places” (Koops
As such, public space has become a ripe and fruitful venue for surveillance of many kinds. Privacy and surveillance may both implicate the control of information (Marx 2015a), although each may not be limited only to informational concerns (Koops et al. 2017). Surveillance has been influentially defined as “the focused, systematic and routine attention to personal details for purposes of influence, management, protection or direction” (Lyon 2007, 14). Haggerty and Ericson (2006, 3) also argue that surveillance “involves the collection and analysis of information about populations in order to govern their activities.” The definition of privacy, on the other hand, has been highly contested for decades. Privacy has been defined in many ways, both normatively and descriptively (Koops et al. 2017, 492; Marx 2015a, 35; Moore 2010; Newell 2015, 28; Solove et al. 2006, 40–51). For purposes of this introduction, it is sufficient to say that privacy and surveillance may oppose one another in many contexts but, as Marx (2015a, 33) has argued, they should not necessarily be seen as opposites. In the end, it seems apparent that we need to find new boundary-marking concepts to more appropriately determine the scope of privacy rights for individuals or groups in public space and regulate the scope and techniques of surveillance directed at them. Complicating matters, of course, is the fact that privacy and expectations of privacy may differ by culture (see, for example, Friedman et al. 2008). Despite that concern, however, it is likely that some aspects of privacy are shared across cultures (Moore 2010, 49–52) and that certain boundary-marking concepts might be used, or be at least usable, in many different cultures (for example, “personal space”). If this is true, then the cross-cultural (and even time-dependent) variability lies in where the boundary itself is placed — for example, how and where exactly do we draw the line between “personal space” and “not personal space”? In the chapters that follow, various authors identify ways in which privacy and surveillance interact and intersect in public space. These analyses provide insights, empirical findings, and arguments that can help illuminate possible boundary-marking concepts and frame future scholarly debate about how we should regulate (or not regulate) surveillance in public space. They also argue for alternative understandings of how we should understand the impacts that modern ways of living and technological progress have on the experience of being in public and — at the extreme — the very nature of what public space really is. The contributions are also highly multidisciplinary, and range in methods from philosophical to empirical to legal, and provide a broad overview of the changing nature of public space and the complex interactions between emerging forms of surveillance and personal privacy in these public spaces. In the next section, I summarize how the authors of the subsequent chapters conceptualize and problematize the notion and definition of “public space”, as this provides a useful lens through which to view the ensuing analyses of the role of privacy and surveillance in these spaces. Following this summary of what the “public space” is (or can be), I then outline a series of concepts
References

Conclusion


Marx, Gary T. 2015a. “Coming to Terms: The Kaleidoscope of


the Nightlife.” Science and Engineering Ethics (online first, advance publication). DOI:


2 2. In the privacy of our streets


Building ivory surveillance towers:
Transformations of public space in higher education


Axis Communications. 2015. “Safe Education at Karaganda State Medical University.”


Foucault, Michel. 1977. Discipline and Punish: The Birth of


David Gabbard, 105-122. New York: Peter Lang Publishing Inc.


4. The changing nature of public space in São Paulo: A taxonomic approach


De Souza, Marcelo Lopes. 2014. “Phobopolis: Violence, Fear


Tuan, Yi-fu. 1979. Landscapes of Fear. Minneapolis: University Minnesota Press.


5 5. A window into the soul: Biosensing in public


MacGillivray, Tom, Manuel Trucco, James Cameron, Baljean Dhillon, Graeme Houston, and Edwin van Beek. 2014. “Retinal Imaging as a Source of Biomarkers for Diagnosis, Characterisation and Prognosis of Chronic Illness or Long-Term Conditions.” The British Journal of Radiology 87: 1-16.


the Gap between Privacy and Design.” University of Pennsylvania Journal of Constitutional Law, 909-1034.


6. Adverse detection: The promise and peril of body-worn cameras


Lyon, David. 2003. Surveillance as Social Sorting: Privacy,


Powell, John A. 2008. “The Color of Opportunity; Race, Place, and Opportunity.” The American Prospect, October 1,
sec. Special Report.


Sorrell v. IMS Health Inc. 2011. 131 S. Ct. 2653. Supreme Court.


“The end of privacy as we know it”: Reconsidering public space in the age of Google Glass


Veen, Mario, Bart Gremmen, Hedwig te Molder, and Cees van Woerkum. 2011. “Emergent Technologies against the


Emergency calls with a photo attached: The effects of urging citizens to use their smartphones for surveillance


ETSI. 2015. “Universal Mobile Telecommunications System


Goold, Benjamin J. 2006. “Open to All? Regulating Open Street CCTV and the Case for Symmetrical Surveillance.”


10 10. “I’m a creep, I’m a weirdo”: Street photography in the service of the male gaze


Dobson, Amy Shields, and Jessica Ringrose. 2016. “Sext
Education: Pedagogies of Sex, Gender, and Shame in the Schoolyards of Tagged and Exposed.” Sex Education 16 (1): 8-21.


Galdi, Silvia, Anne Maass, and Mara Cadinu. 2014. “Objectifying Media: Their Effect on Gender Role Norms and Sexual Harassment of Women.” Psychology of Women Quarterly


Imgur. n.d.b. “/r/creepshots Has Been Removed Due to Doxing


Reddit. 2015. “Admins Have Just Quarantined my 3 year old Subredddit with 66 Thousand Subscribers,
www.reddit.com/r/Blackout2015/comments/3wez2y/admins_have_just_quarantined_my_3_year_old/.


http://jezebel.com/5946931/teacher-posting-creepshot


Vincent, Luc. 2007. “Taking Online Maps Down to Street


11. Legal standards of location privacy in light of the mosaic theory


12 12. Surveillance and privacy in North American public spaces


Gutiérrez Ortiz Mena, Alfredo. 2014. “El derecho a la intimidad en la era de la tecnología de las comunicaciones: una reflexión desde el Derecho Constitucional.” In Revista Mexicana de Derecho Constitucional, N. 31, July-December, pp. 239-245. Mexico City: Instituto de Investigaciones Jurídicas, UNAM.


Suprema Corte de Justicia de la Nación. 2016. Criterios del

References


