

NARSEO VALLINA-RODRIGUEZ

Curriculum Vitae

IMDEA Networks Institute
Avenida del Mar Mediterraneo, 22. 28918 Leganés, Madrid
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🌐 http://people.networks.imdea.org/~narseo_vallina/

Google Scholar: <https://scholar.google.es/citations?user=yO1NzfcAAAAJ>

ORCID: <https://orcid.org/0000-0002-5420-6835>

Research interests

Internet measurements, network protocols, privacy and security, transparency, adTech, consumer protection, and privacy regulation.

Education

- 2009-2013 **Ph.D in Computer Science, University of Cambridge (U.K.)**
Thesis: Cross-layer analysis of energy and spectrum waste of mobile applications
Advisor: Prof. Jon Crowcroft
- 2001-2007 **Telecommunications Engineering, University of Oviedo (Spain)**
MSc dissertation completed at the University of Cambridge
Advisors: Prof. Jon Crowcroft (University of Cambridge) and Prof. Roberto Garcia (University of Oviedo)

Experience

- | | | |
|--------------|--|---------------------|
| 2019-Present | AppCensus Inc.
Co-Founder | San Francisco (USA) |
| 2016-Present | IMDEA Networks Institute
Research Assistant Professor | Madrid (Spain) |
| 2014-Present | International Computer Science Institute
Research Scientist | Berkeley (USA) |
| 2013-2014 | International Computer Science Institute
Postdoctoral Researcher | Berkeley (USA) |
| 2009-2013 | University of Cambridge
Undergraduate Student Supervisor | Cambridge (U.K.) |
| 2011, 2012 | Telefonica Research
Research Intern | Barcelona (Spain) |
| 2009 | T-Labs (Telekom Innovation Labs)
Research Intern | Berlin (Germany) |
| 2008-2009 | Vodafone R&D
Research Engineer | Newbury (U.K.) |
| 2007 | Telefonica Research
Research Intern | Barcelona (Spain) |
| 2006-2007 | University of Cambridge
Visitor Student | Cambridge (U.K.) |

Awards and recognition

2020	<p>Caspar Bowden Award for Outstanding Research in Privacy Enhancing Technologies <i>"Won't somebody think of the Children?" Examining COPPA Compliance at Scale</i>, with Irwin Reyes, Primal Wijesekera, Joel Reardon, Amit Elazari Bar On, Abbas Razaghpanah, and Serge Egelman.</p> <p>IEEE Symposium on Security and Privacy (S&P). Best Practical Paper Award <i>An Analysis of Pre-installed Android Software</i>, with J. Gamba, M. Rashed, A. Razaghpanah and J. Tapiador.</p> <p>CNIL-INRIA Privacy Award <i>An Analysis of Pre-installed Android Software</i>, with J. Gamba, M. Rashed, A. Razaghpanah and J. Tapiador.</p> <p>AEPD Emilio Aced Award <i>An Analysis of Pre-installed Android Software</i>, with J. Gamba, M. Rashed, A. Razaghpanah and J. Tapiador.</p>
2019	<p>USENIX Security Symposium. Distinguished Paper Award <i>50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions System</i>, with J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, and S. Egelman.</p>
2018	<p>Google Faculty Research Award</p> <p>ACM IMC. Distinguished Paper Award <i>Coming of age: A longitudinal study of TLS deployment</i>, with P. Kotzias, A. Razaghpanah, J. Amann, K. Paterson, and J. Caballero.</p> <p>ACM IMC. Community Contribution Award <i>A long way to the top: significance, structure, and stability of internet top lists</i>, with Q. Scheitle, O. Holfeld, J. Gamba, J. Jelten, T. Zimmermann, and S. Strowes.</p>
2017	<p>IETF/IRPF Applied Networking Research Prize <i>A multi-perspective analysis of carrier-grade NAT deployment</i>, with P. Richter, F. Wohlfart, M. Allman, R. Bush, A. Feldmann, C. Kreibich, N. Weaver, and V. Paxson.</p> <p>ACM Mobicom App Contest Finalist <i>Lumen Privacy Monitor App</i></p>
2016	<p>Data Transparency Lab Grant (50K Euro)</p>
2015	<p>ACM HotMiddlebox. Best-paper Award <i>Header enrichment or ISP enrichment?: Emerging privacy threats in mobile networks</i>, with S. Sundaresan, C. Kreibich, and V. Paxson.</p> <p>Selected to attend the NSF NeTS Early Career Workshop</p>
2014	<p>ACM CoNEXT. Best Short-paper Award <i>A tangled mass: The Android root certificate stores</i>, with J. Amann, N. Weaver, C. Kreibich and V. Paxson.</p>
2013	<p>ACM CoNEXT. Runner-up for Best Paper Award <i>When David helps Goliath: the case for 3G onloading</i>, with V. Erramilli, Y. Grunenberger, L. Gyarmati, N. Laoutaris, R. Stanojevic, and K. Papagiannaki</p>
2012	<p>Qualcomm Innovation Fellowship</p>
2010-2012	<p>Fitzwilliam College Scholarship</p>
2009-2012	<p>Cambridge European Trust Fellowship (2.5K GBP/Year)</p>
2009-2011	<p>Fundesfor Scholarship</p>
2007	<p>Honorable Mention for the MsC dissertation. University of Oviedo</p>

Funded projects and grants

2019	<p>Comunidad de Madrid / EU Social Fund €35K Principal investigator. <i>Youth Employment Initiative Program</i></p>
2019-2020	<p>NSA \$194K PI (Co-PIs: Serge Egelman and Michael C. Tschantz, ICSI). <i>Scalable Privacy Analysis</i></p>
2019	<p>AEPD €18K Principal investigator. <i>The Mobile Tracking Industry in Android Devices</i></p>

2019	BBVA	€ 17.5K
	Co-PI (PI: Juan Tapiador, UC3M). <i>Alternativas en la Atribucion de Identidad Digital</i>	
2019	Google Faculty Grant	\$40.5K
	Co-PI (PI: Rishab Nythianand, University of Iowa). <i>Unveiling Entity Relationships in Online Data Markets</i>	
2019-2020	Comunidad de Madrid (P2018/TCS-4499)	€ 703K
	Researcher (PI: Antonio Fernandez Anta, IMDEA Networks). <i>EDGEDATA-CM. Una infraestructura para sistemas híbridos altamente descentralizados.</i>	
2018-2021	NSF SaTC TTP (CNS-1817248)	\$515K
	Collaborator (PI: Serge Egelman, ICSI). <i>SaTC: TTP: Small: Mobile Dynamic Privacy and Security Analysis at S</i>	
2018-2020	EU H2020 (Contract 786741)	€ 3.3M (IMDEA share: € 250K)
	Principal investigator. <i>GDPR Compliance Cloud Platform for Micro Enterprises (SMOOTH)</i>	
2018-2019	MINECO (Contract 786741)	€ 64K
	Researcher (PI: Vincenzo Mancuso / Antonio Fernandez Anta, IMDEA Networks). <i>DiSCoEdge: Almacenamiento y computación distribuida en el borde (de la red)</i>	
2017	Telefonica	€ 30K
	Principal Investigator. <i>Transparency API</i>	
2016-2020	NSF (Contract CNS-1564329)	\$1.0M
	Principal investigator. <i>Medium: HayStack: Fine-grained Visibility and Control of Mobile Traffic for Enhanced Performance, Privacy and Security</i>	
2016	Data Transparency Labs Grant	€ 50K
	Principal Investigator. <i>Characterizing Indirect Privacy Leaks in Mobile Apps</i>	
2016-2018	EU H2020 (Contract 653449)	€ 4.6M (IMDEA Share: € 446.250K)
	Researcher (PI: Arturo Azcorra, IMDEA Networks). <i>Towards transparency and privacy in the online advertising busines (TYPES)</i>	
2015-2019	NSF (Contract CNS-1518918)	\$1.8M
	Researcher (PI: Vern Paxson, ICSI). <i>TTP Option: Large: Collaborative: Towards a Science of Censorship Resistance</i>	
2012-2019	NSF (Contract CNS-1237265)	\$4.6M
	Researcher (PI: Vern Paxson, ICSI). <i>Frontier: Collaborative: Beyond Technical Security: Developing an Empirical Basis for Socio-Economic Perspectives</i>	
2012-2017	NSF (Contract CNS-1213157)	\$721K
	Researcher (PI: Mark Allman, ICSI). <i>Large: Collaborative Research: User-Centric Network Measurement</i>	
2012-2015	DHS (Contract N66001-12-C-0128)	\$952K
	Researcher (PI: Nicholas Weaver, ICSI). <i>Netalyzr NG: Monitoring DNS, DNSSEC, and TLS from the Edge</i>	
2012	Qualcomm Innovation Fellowship	10K GBP
2012	ACM SIGCOMM Student Travel Grant	\$900
2010	ACM SIGCOMM Student Travel Grant	\$1,175
2009-2012	Cambridge European Trust Fellowship	2.5K GBP/year
2009	ACM SIGMOBILE MobiSys Student Travel Grant	\$600

Community service

PC chair	2016	1st ACM MobiSys Workshop on Mobile Data (MOBIDATA)
Demo co-chair	2020	ACM Mobicom
Workshop co-chair	2018	ACM CoNEXT
Best-paper award committee	2019	ACM IMC
PC member	2020	ACM SIGSAC Conference on Computer and Communications Security (CCS) ACM Internet Measurements Conference (IMC) Privacy Enhancing Technologies Symposium (PETS)
	2019	ACM Internet Measurements Conference (IMC)

		IEEE/IFIP TMA Conference (TMA) Passive and Active Measurements (PAM) Privacy Enhancing Technologies Symposium (PETS)
	2018	ACM CoNEXT ACM Internet Measurements Conference (IMC) Privacy Enhancing Technologies Symposium (PETS) ACM Workshop on IoT S&P (Co-located with ACM SIGCOMM) IEEE HotPOST (Co-located with IEEE INFOCOM) IEEE/IFIP TMA Conference (TMA) ACM HotMobile Passive and Active Measurements (PAM) Conference on Fairness, Accountability, and Transparency (FAT)
	2017	ACM CoNEXT ACM Workshop on IoT S&P (Co-located with ACM SIGSAC CCS) IEEE/IFIP TMA Conference Passive and Active Measurements (PAM) ACM BIG DAMA Workshop (Co-located with ACM SIGCOMM) ACM Mobilesoft (New Ideas Track)
	2016	ACM CoNEXT Student Workshop Spring School on Networks (SSN), NICLabs Chile. ACM SIGCOMM GAIA Workshop IEEE Int. Workshop on TRaffic Analysis and Characterization (TRAC)
	2015	ACM CoNEXT Student Workshop IEEE Int. Workshop on TRaffic Analysis and Characterization (TRAC) Traffic Monitoring and Analysis Workshop (TMA) ACM Ubiquitous Poster Track
	2012	ACM S3 Workshop
Journal reviewer	2017	IEEE Transactions of Networking IEEE Communication Letters
	2016	SIGCOMM CCR
	2015	IEEE JSAC Special Issue on Measuring and Troubleshooting the Internet IEEE Transactions of Networking IEEE Internet Computing IEEE Communication Letters
	2014	IEEE Pervasive Computing IEEE Transactions of Mobile Computing
External reviewer	2014	IEEE UbiComp
	2013	ACM CoNEXT
Project evaluator	2020	External expert project evaluator for Universidad de Comillas (Spain)
Session chair	2019	ACM IMC. Session: <i>Ads</i> TMA. Session: <i>Are you experienced: QoE, streaming and Clouds</i>
	2018	ACM CoNEXT. Session: <i>Security</i> ACM IMC. Session: <i>Routing/Censorship</i> PETS. Session: <i>Tracking</i>
	2017	TMA. Session: <i>Privacy</i>
Student volunteer	2009	ACM Mobile Ubiquitous Multimedia (MUM)
	2006	IEEE Conference on Peer-to-Peer Computing (P2P)
Institutional service	2020	Member of IMDEA Networks's Ethical Board
	2019	Ph.D Students' Welcome Seminar
	2018	Developed IMDEA Networks Ethical Research Guidelines Co-organized IMDEA Networks Talklets Launched IMDEA Networks Reading Group
	2017	Co-organized IMDEA Networks' Annual Workshop 2017
	2016	Local host for Mozilla's Privacy Labs. June 2016 (ICSI)
College service / leadership roles	2011	Fitzwilliam College MCR Sports Officer

2010 Fitzwilliam College MCR Social Secretary
Fitzwilliam-Clare College MCR Football team Vice-captain

PhD and MsC tribunal / jury membership

Ph.D tribunal	2020	Mohammad Taha Khan	UIC (USA)
	2019	Abbas Razaghpanah Platon Kotzias	SBU (USA) IMDEA Software / UPM (Spain)
	2018	Pol Mac Aonghusa	Trinity College Dublin (Ireland)
Ph.D prelims	2019	Imane Fouad —Comite de Suivi Individuel Mohammad Taha Khan	INRIA (France) UIC (USA)
	2018	Abbas Razaghpanah	SBU (USA)
MsC tribunal	2017	Eduardo Acha	Universidad de Chile (Chile)

Publications

Bibliometrics	Citation count:	1,917
	h-index:	24
	i10-index:	35

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|-------------------------|----|---|
| Refereed journal papers | 1. | Tracking the deployment of TLS 1.3 on the Web: A story of experimentation and centralization
R. Holz, J. Hiller, J. Amann, A. Razaghpanah, T. Jost, N. Vallina-Rodriguez, O. Hohlfeld
ACM SIGCOMM Computer Communication Review. Volume 50. Issue 3. Pages 3-15, 2020 |
| | 2. | The Price is (Not) Right: Comparing Privacy in Free and Paid Apps
C. Han, I. Reyes, A. Feal, J. Reardon, P. Wijesekera, N. Vallina-Rodriguez, A. Elazari, K. A Bamberger, S. Egelman
Proceedings of Privacy Enhancing Technologies (PoPETS). Volume 2020: Issue 3, 2020 |
| | 3. | Angel or Devil? A Privacy Study of Mobile Parental Control Apps
A. Feal, P. Calciati, N. Vallina-Rodriguez, C. Troncoso, A. Gorla
Proceedings of Privacy Enhancing Technologies (PoPETS), Volume 2020: Issue 2, 2020 |
| | 4. | Measuring the Global Recursive DNS Infrastructure: A View From the Edge
P. Callejo, R. Cuevas, N. Vallina-Rodriguez, A. Cuevas
IEEE Access. Volume 7. Pages 168020-168028, 2019 |
| | 5. | “Won’t Somebody Think of the Children?” Privacy Analysis at Scale: A Case Study With COPPA
I. Reyes, P. Wijesekera, J. Reardon, A. Elazari, A. Razaghpanah, N. Vallina-Rodriguez, and S. Egelman
Proceedings of Privacy Enhancing Technologies (PoPETS), Volume 2018: Issue 3 (Jun 2018), 2018 |
| | 6. | Header Enrichment or ISP Enrichment? Emerging Privacy Threats in Mobile Networks
N. Vallina-Rodriguez, S. Sundaresan, C. Kreibich, and V. Paxson
ACM SIGCOMM CCR (Fast-tracked), Volume 45 Issue 4, October 2015, 2015 [JCR Impact Factor: 1.18 (Q2)] |
| | 7. | The scissors and the magnifying glass: Internet governance in the transitional Tunisian context
A. Artaud de la Ferriere, and N. Vallina-Rodriguez
Journal of North African Studies, 2014 19(5), pp. 639-655, 2014 |
| | 8. | When Assistance Becomes Dependence: Characterizing the Costs and Inefficiencies of A-GPS
N. Vallina-Rodriguez, A. Finamore, Y. Grunenberger, K. Papagiannaki, and J. Crowcroft
ACM SIGMOBILE Mobile Computing and Communications Review (MC2R). Volume 17, Issue 4, 2013 |
| | 9. | Energy Management Techniques in Modern Mobile Handsets |

Refereed
conference
papers

- N. Vallina-Rodriguez, and J. Crowcroft
IEEE Communications Surveys and Tutorials, Volume. 15, No. 1, 1s Quarter 2013,
2013 [**JCR Impact Factor: 6.49 (Q1)**]
10. **The Lockdown Effect: Implications of the COVID-19 Pandemic on Internet Traffic**
A. Feldmann, O. Gasser, F. Lichtblau, E. Pujol, I. Poese, C. Dietzel, D. Wagner, M. Wichtlhuber, J. Tapiador, N. Vallina-Rodriguez, O. Hohlfeld, G. Smaragdakis
(To appear) ACM IMC, 2020 [**Acceptance Rate: 24.5%**]
 11. **Mis-shapes, Mistakes, Misfits: An Analysis of Domain Classification Services**
P. Vallina, V. Le Pochat, A. Feal, M. Paraschiv, J. Gamba, T. Burke, O. Hohlfeld, J. Tapiador, N. Vallina-Rodriguez
(To appear) ACM IMC, 2020 [**Acceptance Rate: 24.5%**]
 12. **Understanding Incentivized Mobile App Installs on Google Play Store**
S. Farooqi, A. Feal, T. Lauinger, D. McCoy, Z. Shafiq, N. Vallina-Rodriguez
(To appear) ACM IMC, 2020 [**Acceptance Rate: 24.5%**]
 13. **Angel or Devil? A Privacy Study of Mobile Parental Control Apps**
A. Feal, P. Calciati, N. Vallina-Rodriguez, C. Troncoso, A. Gorla
Privacy Enhancing Technologies Symposium (PETS), 2020 [**Acceptance Rate: 23.0%**]
 14. **The Price is (not) Right: Comparing Privacy in Free and Paid Apps**
C. Han, I. Reyes, A. Feal, J. Reardon, P. Wijesekera, N. Vallina-Rodriguez, S. Egelman
Privacy Enhancing Technologies Symposium (PETS), 2020 [**Acceptance Rate: 23.0%**]
 15. **An Analysis of Pre-installed Android Software**
J. Gamba, M. Rashed, A. Razaghpanah, J. Tapiador, N. Vallina-Rodriguez
IEEE Symposium on Security and Privacy, 2020 [**Acceptance Rate: 12.3%**]
Best Practical Paper Award
 16. **Apophanies or Epiphanies: How Crawlers Can Impact Our Understanding of the Web**
S. Suleman Ahmad, M. Daniyal Dar, R. Nithyanand, N. Vallina-Rodriguez, M. Fareed Zaffar
The Web Conference (WWW), 2020 [**Acceptance Rate: 19.0%**]
 17. **Encrypted DNS – ¿ Privacy? A Traffic Analysis Perspective**
S. Siby, M. Juarez, N. Vallina-Rodriguez, C. Diaz, C. Troncoso
NDSS Symposium, 2020
 18. **Tales from the Porn: A Comprehensive Privacy Analysis of the Web Porn Ecosystem**
P. Vallina, A. Feal, J. Gamba, N. Vallina-Rodriguez, A. Fernandez-Anta
ACM IMC, 2019 [**Acceptance Rate: 19.7%**]
 19. **50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions Systems**
J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, N. Vallina-Rodriguez, S. Egelman
USENIX Security Symposium, 2019 [**Acceptance Rate: 16.0%**]
Distinguished Paper Award
 20. **Coming of Age: A Longitudinal Study of TLS Deployment**
P. Kotzias, A. Razaghpanah, J. Amann, K. G. Paterson, N. Vallina-Rodriguez, and J. Caballero
ACM IMC, 2018 [**Acceptance Rate: 24.0%**]
Distinguished Paper Award
 21. **Beyond Google Play: A Large-Scale Comparative Study of Chinese Android App Markets**
H. Wang, Z. Liu, N. Vallina-Rodriguez, Y. Guo, L. Li, J. E. Tapiador, J. Cao, and G. Xu
ACM IMC, 2018 [**Acceptance Rate: 24.0%**]
 22. **An Empirical Analysis of the Commercial VPN Ecosystem**
M. Khan, J. de Blasio, G. Voelker, A. Snoeren, C. Kanich, N. Vallina-Rodriguez
ACM IMC, 2018 [**Acceptance Rate: 24.0%**]
 23. **A Long Way to the Top: Significance, Structure, and Stability of Internet**
Q. Scheitle, O. Hohlfeld, J. Gamba and J. Jelten, T. Zimmermann, S. Strowes, and N. Vallina-Rodriguez
ACM IMC, 2018 [**Acceptance Rate: 24.0%**]
Community Contribution Award

24. **“Won’t Somebody Think of the Children” Privacy Analysis at Scale: A Case Study With COPPA**
I. Reyes, P. Wijesekera, J. Reardon, A. Elazari, A. Razaghpanah, N. Vallina-Rodriguez, and S. Egelman
Privacy Enhancing Technologies Symposium (PETS), 2018 [Acceptance Rate: 16.0%]
Caspar Bowden PETS Award 2020
25. **The Cloud that Runs the Mobile Internet**
F. Michelinakis, H. Doroud, A. Razaghpanah, A. Lutu, N. Vallina-Rodriguez, P. Gill and J. Widmer
IEEE INFOCOM, 2018 [Acceptance Rate: 19.2%]
26. **Bug Fixes, Improvements, ... and Privacy Leaks: A Longitudinal Study of PII Leaks Across Android App Versions**
J. Ren, M. Lindorfer, D. J. Dubois, A. Rao, D. Choffnes and N. Vallina-Rodriguez
NDSS Symposium, 2018 [Acceptance Rate: 21.5%]
27. **Apps, Trackers, Privacy and Regulators: A Global Study of the Mobile Tracking Ecosystem**
A. Razaghpanah, R. Nithyanand, N. Vallina-Rodriguez, S. Sundaresan, M. Allman, C. Kreibich, and P. Gill
NDSS Symposium, 2018 [Acceptance Rate: 21.5%]
28. **Studying TLS Usage in Android Apps**
A. Razaghpanah, A. Niaki, N. Vallina-Rodriguez, S. Sundaresan, J. Amann, and P. Gill
ACM CoNEXT, 2017 [Acceptance Rate: 18.0%]
29. **Dissecting DNS Stakeholders in Mobile Networks**
M. Almeida, A. Finamore, D. Perino, N. Vallina-Rodriguez, and M. Varvello
ACM CoNEXT (Short paper), 2017 [Acceptance Rate: 18.0%]
30. **A Multi-perspective Analysis of Carrier-Grade NAT Deployment**
P. Richter, F. Wohlfart, N. Vallina-Rodriguez, M. Allman, R. Bush, A. Feldmann, C. Kreibich, N. Weaver, and V. Paxson
ACM IMC, 2016 [Acceptance Rate: 24.7%]
31. **An analysis of the Privacy and Security Risks of Android VPN Permission-enabled Apps**
M. Ikram, N. Vallina-Rodriguez, S. Seneviratne, M.A. Kaafar, and V. Paxson
ACM IMC, 2016 [Acceptance Rate: 24.7%]
32. **Beyond the radio: Illuminating the higher layers of mobile networks**
N. Vallina-Rodriguez, S. Sundaresan, C. Kreibich, N. Weaver, and V. Paxson
ACM MobiSys, 2015 [Acceptance Rate: 13.2%]
33. **A Tangled Mass: The Android Root Certificate Stores**
N. Vallina-Rodriguez, J. Amann, C. Kreibich, N. Weaver, and V. Paxson
ACM CoNEXT, 2014 [Acceptance Rate: 18.5%]
Best Short-paper Award
34. **Staying Online While Mobile: The Hidden Costs**
A. Aucinas, N. Vallina-Rodriguez, Y. Grunenberger, V. Erramilli, K. Papagiannaki, J. Crowcroft and D. Whetherall
ACM CoNEXT, 2013 [Acceptance Rate: 18.1%]
35. **Surely You’re Joking! 3G OnLoading?**
C. Rossi, N. Vallina-Rodriguez, V. Erramilli, Y. Grunenberger, L. Gyarmati, N. Laoutaris, R. Stanojevic, K. Papagiannaki, and P. Rodriguez
ACM CoNEXT, 2013 [Acceptance Rate: 20.2%]
36. **RILAnalyzer: A Comprehensive 3G Monitor on your Phone**
N. Vallina-Rodriguez, A. Aucinas, M. Almeida, Y. Grunenberger, K. Papagiannaki, and J. Crowcroft
ACM IMC (Short paper), 2013 [Acceptance Rate: 23.6%]
37. **Breaking for Commercials: Characterizing Mobile Advertising**
N. Vallina-Rodriguez, J. Shah, A. Finamore, Y. Grunenberger, H. Haddadi, K. Papagiannaki, and J. Crowcroft
ACM IMC, 2012 [Acceptance Rate: 24.6%]
38. **Los Twindignados: The Rise of the Indignados Movement on Twitter**
N. Vallina-Rodriguez, S. Scellato, H. Haddadi, C. Forsell, J. Crowcroft, and C. Mascolo
IEEE Socialcom, 2012 [Acceptance Rate: 20.0%]
39. **Don’t accept candy from strangers: An Analysis of third-party SDKs**

Refereed
workshop
papers

- A. Feal, J. Gamba, N. Vallina-Rodriguez, P. Wijesekera, J. Reardon, S. Egelman, J. Tapiador
CPDP Conference Book, 2020
40. **The Case for Context-Aware Resources Management in Mobile Operating Systems**
N. Vallina-Rodriguez, P. Hui, and J. Crowcroft
Mobile Context Awareness, 2012
41. **On The Ridiculousness of Notice and Consent: Contradictions in App Privacy Policies**
E. Okoyomon, N. Samarin, P. Wijesekera, A. On, N. Vallina-Rodriguez, I. Reyes, A. Feal, S. Egelman
IEEE Workshop on Technology and Consumer Protection (Co-located with IEEE S&P'19), 2019 [Acceptance Rate: -%]
42. **Do You Get What You Pay For? Comparing the Privacy Behaviors of Free vs. Paid Apps**
C. Han, I. Reyes, A. On, J. Reardon, A. Feal, S. Egelman, N. Vallina-Rodriguez
IEEE Workshop on Technology and Consumer Protection (Co-located with IEEE S&P'19), 2019 [Acceptance Rate: -%]
43. **DNS Privacy not so private: the traffic analysis perspective**
S. Deepthy, M. Juarez, N. Vallina-Rodriguez, and C. Troncoso
11th Workshop on Hot Topics in Privacy Enhancing Technologies (HotPETs 2018), 2018
44. **Studying TLS Usage in Android Apps (Submitted talk)**
A. Razaghpanah, A. Niaki, N. Vallina-Rodriguez, S. Sundaresan, J. Amann, and P. Gill
ACM, IRTF and ISOC Applied Networking Research Workshop (ANRW), 2018 [Acceptance Rate: 26.1%]
45. **AdTag: A Platform for Targeted Network Measurements from the Edge of the Network**
P. Callejo, C. Kelton, N. Vallina-Rodriguez, R. Cuevas, O. Gasser, C. Kreibich, F. Wohlfart, and A. Cuevas
ACM HotNets, 2017 [Acceptance Rate: 23.3%]
46. **“Is Our Children’s Apps Learning?” Automatically Detecting COPPA Violations**
I. Reyes, P. Wiesekera, A. Razaghpanah, J. Reardon, N. Vallina-Rodriguez, S. Egelman, and C. Kreibich
IEEE Workshop on Technology and Consumer Protection (Co-located with IEEE S&P'17), 2017
47. **Tracking the Trackers: Towards Understanding the Mobile Advertising and Tracking Ecosystem**
N. Vallina-Rodriguez, S. Sundaresan, A. Razaghpanah, R. Nithyanand, M. Allman, C. Kreibich, P. Gill
Data Algorithmics and Transparency Workshop (DAT), 2016 [Acceptance Rate: 55.0%]
48. **Ad-Blocking and Counter Blocking: A Slice of the Arms Race**
R. Nithyanand, S. Khattak, M. Javed, N. Vallina-Rodriguez, M. Falahrastegar, J. E. Powles, E. De Cristofaro, H. Haddadi, S. J Murdoch
Usenix FOCl, 2016 [Acceptance Rate: 35.0%]
49. **Header Enrichment or ISP Enrichment? Emerging Privacy Threats in Mobile Networks**
N. Vallina-Rodriguez, S. Sundaresan, C. Kreibich, and V. Paxson
ACM HotMiddlebox, 2015 [Acceptance Rate: 37.5%]
Best-paper Award
50. **When David can Help Goliath: The Case for Cellular Augmentation of Wired Networks**
N. Vallina-Rodriguez, V. Erramilli, Y. Grunenberger, L. Gyarmati, N. Laoutaris, R. Stanojevic, and K. Papagiannaki
ACM HotNets, 2012 [Acceptance Rate: 19.0%]
51. **Enabling Opportunistic Resources Sharing on Mobile Operating Systems: Benefits and Challenges**
N. Vallina-Rodriguez, C. Efstratiou, G. Xie, and J. Crowcroft
ACM S3, 2011
52. **ErdOS: Achieving Energy Savings in Mobile OS**
N. Vallina-Rodriguez and J. Crowcroft

- ACM MobiArch, 2011 [**Acceptance Rate: 50.0%**]
53. **Exhausting Battery Statistics: Understanding the Energy Demands on Mobile Handsets**
N. Vallina-Rodriguez, P. Hui, J. Crowcroft, and A. Rice
ACM MobiHeld, 2010 [**Acceptance Rate: 52.9%**]
54. **Has Anyone Seen my Goose? Social Network Services in Developing Regions**
N. Vallina-Rodriguez, P. Hui, and J. Crowcroft
IEEE Social Mobile Web (SMW), 2009
- Conferences without proceedings
55. **Don't accept candies from strangers: An Analysis of third-party SDKs**
A. Feal, J. Gamba, N. Vallina-Rodriguez, P. Wijesekera, J. Reardon, S. Egelman, J. Tapiador
CPDP Conference, 2020
56. **"Won't Somebody Think of the Children" Privacy Analysis at Scale: A Case Study With COPPA**
I. Reyes, P. Wijesekera, J. Reardon, A. Elazari, A. Razaghpanah, N. Rodriguez, and S. Egelman
Privacy Law Scholars Conference (PLSC2018), May 2018, 2018
- Refereed national conferences
57. **This Is My Private Business! Privacy Risks on Adult Websites**
P. Vallina, J. Gamba, A. Feal, N. Vallina-Rodriguez, and A. Fernandez-Anta
Jornadas Nacionales de Investigacion en Ciberseguridad (JNIC), 2018
[**Acceptance Rate: 62.0%**]
58. **An Analysis of Pre-installed Android Software**
J Gamba, M Rashed, R Abbas, N Vallina-Rodriguez, and J Tapiador
Jornadas Nacionales de Investigacion en Ciberseguridad (JNIC), 2018
[**Acceptance Rate: 62.0%**]
- Demos and posters
59. **Do You Get What You Pay For? Comparing the Privacy Behaviors of Free vs. Paid Apps**
C. Han, I. Reyes, A. Elazari Bar On, J. Reardon, A. Feal, K. A. Baberger, S. Egelman, and N. Vallina-Rodriguez
Usenix SOUPS, 2019
60. **On The Ridiculousness of Notice and Consent: Contradictions in App Privacy Policies**
E. Okoyomon, N. Samarin, P. Wijesekera, A. Elazari Bar On, N. Vallina-Rodriguez, I. Reyes, A. Feal, and S. Egelman
Usenix SOUPS, 2019
61. **Examining COPPA Compliance at Scale**
I. Reyes, P. Wijesekera, J. Reardon, A. Elazari, A. Razaghpanah, N. Vallina-Rodriguez, and S. Egelman
Usenix SOUPS, 2018
62. **A Study on the Privacy Implications of Mobile Parental Control Apps**
A. Feal, J. Gamba, N. Vallina-Rodriguez, C. Troncoso, A. Gorla, P. Calciati
OPERANDI (PETS), 2018
63. **A Long Way to the Top: Significance, Structure, and Stability of Internet Top Lists**
Q. Scheitle, O. Hohlfeld, J. Gamba, J. Jelten, T. Zimmermann, SD. Strowes, N. Vallina-Rodriguez
TMA, 2018
64. **A Study on the Privacy Implications of Mobile Parental Control Apps**
A. Feal, J. Gamba, N. Vallina-Rodriguez, C. Troncoso, A. Gorla, P. Calciati
TMA, 2018
65. **Content Distribution Networks in the mobile age**
F. Michelinakis, H. Doroud, A. Razaghpanah, A. Lutu, N. Vallina-Rodriguez, P. Gill, and J. Widmer
ACM IMC, 2017
66. **Characterising users experience and critical path in mobile applications**
A. Finamore, J. Newman, D. Perino, N. Rattनाविपानон, C. Soriente, and N. Vallina-Rodriguez
ACM IMC, 2017
67. **Lumen: The No-Root Mobile Measurement App**
A. Razaghpanah, N. Vallina-Rodriguez, S. Sundaresan, M. Allman, C. Kriebich, and P. Gill
ACM Mobicom (Mobile app contest), 2017
68. **Lumen: Fine-Grained Visibility and Control of Mobile Traffic in User-Space**
N. Vallina-Rodriguez, C. Kriebich, M. Allman, and V. Paxson

- NSF SaTC PI-meeting, 2017
69. **A client-side analysis of TLS usage in mobile apps**
A Razaghpanah, N Vallina-Rodriguez, and P Gill
Usenix Security, 2016
70. **Haystack: In situ Mobile Traffic Analysis in User Space**
A Razaghpanah, N Vallina-Rodriguez, S. Sundaresan, C. Kreibich, P Gill, M. Allman
and V. Paxson
ACM HotMobile, 2016
71. **Signposts: End-to-End Networking in a World of Middleboxes**
Richard Mortier, Andrius Aucinas, Amir Chaudhry, Jon Crowcroft, S Eide, Steve
Hand, Anil Madhavapeddy, A Moore, Charalampos Rotsos, N Rodriguez
ACM SIGCOMM, 2012
72. **ErdOS: An energy-aware social operating system for mobile handsets**
N. Vallina-Rodriguez and J. Crowcroft
OSDI, 2010
73. **Goose: social network services for developing regions and rural areas**
N. Vallina-Rodriguez, P.Hui, and J. Crowcroft
ACM SIGCOMM, 2009
- Magazine
articles
74. **50 Ways to Leak Your Data An Exploration of Apps' Circumvention**
J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, N. Vallina-Rodriguez, S.
Egelman
;login: The USENIX Magazine. Winter 2019, Vol. 44, No. 4, 2019
75. **7 in 10 smartphone apps share your data with third-party services**
N. Vallina-Rodriguez, and S. Sundaresan
Communications of ACM, 2017
76. **The Adblocking Tug-of-War**
H. Haddadi, R. Nithyanand, S. Khattak, M. Javed, N. Vallina-Rodriguez, M.
Falahrastegar, J. E Powles, E. De Cristofaro, S. J Murdoch
;login: The USENIX Magazine. Winter 2016, Vol. 41, No. 4, 2016
- Tech reports
77. **Haystack: In situ Mobile Traffic Analysis in User Space**
A. Razaghpanah, N. Vallina, S. Sundaresan, C. Kreibich, P. Gill, M. Allman, and V.
Paxson
Arxiv, 2015
- PhD Thesis
78. **Cross-layer analysis of energy and spectrum waste of mobile applications**
N. Vallina-Rodriguez
University of Cambridge, 2013

Patents

1. Distribution of broadband multimedia streams in WiFi connections. **EP2124387B1**
Ignacio De Vega Mayordomo; Pablo Rodriguez Rodriguez; Narseo Vallina-Rodriguez
Filed: 19.05.2009. Granted: 18.09.2013

Keynotes, panels, plenary sessions, and seminars

Round tables and panels	2020	CPDP The GDPR is easy: (Un)tangling SME compliance hurdles	Brussels (BE)
	2019	South Summit Data protection as a driver for innovation	Madrid (ES)
		Menendez Pelayo International University (UIMP) Tecnologias de seguimiento, perfilado y proteccion de datos	Santander (ES)
Keynotes	2020	T3chF3st Post-poned due to the COVID-19 Pandemic	Madrid (ES)
	2017	IEEE TMA Conference Crowdsourcing Network and Traffic Measurements to Illuminate the Mobile Ecosystem	Maynooth (EI)
Plenary	2019	European Data Protection Board (EDPB) An Analysis of Pre-installed Android Software	Brussels (BE)
	2017	Federal Trade Comission (FTC) PrivacyCon Understanding the Mobile Ecosystem with the Lumen Privacy Monitor	Washington DC (USA)
	2015	APNIC 39 / APRICOT	Fukuoka (JP)

		Real Mobile/Wireless Broadband: Trailblazing into the future	
	2014	NANOG 62 Understanding User Experience on Mobile Devices with the ICSI Netalyzr	Baltimore (USA)
Divulgation	2019	European Researcher's Night (MSCA) IMDEA-CSI	Madrid (ES)
	2017	European Researcher's Night (MSCA) IMDEA-CSI	Madrid (ES)
Talks / seminars		University of British Columbia (Canada), Universidad del Desarrollo (Chile), Universidad de Chile (Chile), INRIA (France), Technicolor (France), VMWare (France), TU Munich (Germany), Bell Labs (Ireland), Trinity College Dublin (Ireland), University of Pisa (Italy), Institute for Information Law, University of Amsterdam (Netherlands), IMDEA Networks (Spain), IMDEA Software (Spain), Universidad Carlos III Madrid (Spain), Universidad Rey Juan Carlos (Spain), INCIBE (Spain), Telefonica Alpha (Spain), Telefonica Research (Spain), ETH Zurich (Switzerland), Microsoft Research (UK), University College London (UK), Queen Mary University of London (UK), Next Generation Networking Workshop (UK), the USA Federal Communications Commission (USA), Google (USA), Brave (USA), Data Transparency Lab (USA and Spain), Facebook (USA), CAIDA / UCSD (USA), UC Berkeley (USA), University of Maryland (USA), New York University (USA), Northeastern University (USA), Qualcomm (USA), AdRoll (USA), Uber (USA), Akamai (USA), Google (USA), and NEC Labs America (USA).	
Other		My colleagues have also presented joint work at RIPE Plenaries (Philipp Richter at RIPE 73 , and Patricia Callejo at RIPE 76), IETF meetings (Sandra Siby, IETF 105), DEF CON 26 (Irwin Reyes, Crypto and Privacy Village), Realworld Crypto (Johanna Amman, 2020), at the FTC PrivacyCon (Jingjing Ren, Irwin Reyes, Primal Wijesekera), USENIX Enigma (Serge Egelman), OWASP Meetup Jan 2020 (South Bay) (Serge Egelman).	

Mentoring and student supervision

Graduated PhD students	09/2015 - 10/2019	Abbas Razaghpanah	Stony Brook University †
Postdocs	04/2019 - 04/2020	Marius Paraschiv	IMDEA Networks
PhD students	09/2020 - Present	Aniketh Gireesh	IMDEA Networks
	03/2018 - Present	Alvaro Feal	IMDEA Networks
	09/2017 - Present	Julien Gamba	IMDEA Networks
PhD interns	10/2019 - 12/2019	Kaspar David Hageman (Aalborg University)	IMDEA Networks
	02/2019 - 04/2019	Antonio Montieri (University of Napoli)	IMDEA Networks
	09/2018 - 08/2019	William Tolley (University of New Mexico)	ICSI ‡
	06/2018 - 09/2018	Shehroze Farooqi (University of Iowa)	ICSI
	06/2018 - 09/2018	Muhammad Ahmad Bashir (NEU)	ICSI
	06/2017 - 09/2017	Mohammed Taha Khan (UIC)	ICSI ‡
	06/2017 - 09/2017	James Newman (Northwestern University)	ICSI
	06/2017 - 09/2017	Abbas Razaghpanah (SBU)	ICSI
	02/2017 - 06/2017	Hossein Doroud (UC3M)	IMDEA Networks
06/2015 - 09/2015	Abbas Razaghpanah (SBU)	ICSI	
MsC students	2019 - 2020	Alejandro Amaro	UC3M
	2010 - 2011	Rokey Ge	University of Cambridge
BsC students	2012 - 2013	Amy O'Sullivan	University of Cambridge
	2011 - 2012	Jay Shah	University of Cambridge
	2010 - 2011	Mark Hogan	University of Cambridge
	2010 - 2011	Michael Clark	University of Cambridge
Pre-doc interns	02/2019 - 05/2019	Alberto Martin (UPM)	IMDEA Networks
	05/2018 - 06/2018	Joel Rodiel Lucero (San Diego HighTech)	IMDEA Networks
	12/2016 - 06/2017	Ronald Arnanjaya (UC Berkeley)	ICSI

† Co-supervised with Prof. Phillipa Gill (UMass-Amherst)

‡ Funded by an Open Technology Fund (OTF) Fellowship

Teaching

2019-2020	MsC in Cybersecurity Guest lecturer: Mobile Applications, Trackers and Privacy (1.5h)	UC3M (ES)
	MsC Telematics Guest lecturer: Internet Measurements (1.5h)	UC3M (ES)
	PhD School Guest lecturer: Internet Measurements (15h)	UC3M (ES)
2018-2019	5th Interdisciplinary Summerschool on Privacy (ISP 2019) Have I given consent to this? Analyzing the transparency of Mobile products (2h)	Nijmegen (NL)
	TMA PhD School Studying Mobile Traffic with the Lumen Traffic Monitor	Paris (FR)
	MsC in Cybersecurity Guest lecturer: Towards Building a Complete Picture of the Privacy Risks in Android (1.5h)	UC3M (ES)
	MsC in Telematics Engineering Guest lecturer: Measuring mobile traffic (1.5h)	UC3M (ES)
2017-2018	MsC in Telematics Engineering Guest lecturer: Crowdsourcing mobile measurements (1.5h)	UC3M (ES)
2016-2017	MsC in Telematics Engineering Guest lecturer: Crowdsourcing mobile measurements (1.5h)	UC3M (ES)
2011-2012	BsC in Computer Science Student supervisor: Principles of Communications (Lecturer: Prof. Jon Crowcroft)	University of Cambridge (UK)
2010-2011	BsC in Computer Science Student supervisor: Principles of Communications (Lecturer: Prof. Jon Crowcroft)	University of Cambridge (UK)
2009-2010	BsC in Computer Science Student supervisor: Advanced Systems Topics (Lecturer: Prof. Steve Hand)	University of Cambridge (UK)
2009-2010	BsC in Computer Science Student supervisor: Digital Communications II (Lecturer: Prof. Jon Crowcroft)	University of Cambridge (UK)

Software

I have been actively involved in the development of publicly available software for enhancing mobile transparency, network analysis and network troubleshooting.

1. **AppCensus**
<https://appcensus.mobi>
2. **App Versions Tool**
<https://recon.meddle.mobi/appversions/index.html>
3. **FirmwareScanner (10,000 users)**
<https://play.google.com/store/apps/details?id=org.imdea.networks.iag.preinstalleduploader>
4. **Lumen Privacy Monitor (21,000 users)**
<https://play.google.com/store/apps/details?id=edu.berkeley.icsi.haystack>
5. **Netalyzr for Android (80,000 users) (Discontinued)**
<https://play.google.com/store/apps/details?id=edu.berkeley.icsi.netalyzr.android>

Public datasets

1. **Android Observatory**
<https://www.androidobservatory.com>
2. **Domain Ranks**
<https://toplists.github.io>
3. **TLS Client Fingerprints**
https://github.com/platonK/tls_fingerprints
4. **CloudMap (dataset and code)**
<http://wireless.networks.imdea.org/cloudmap-project>
5. **TLS handshake fingerprints for more than 30K Android apps**

- <https://haystack.mobi/datasets.html>
6. **Research data supporting “Adblocking and Counter-Blocking: A Slice of the Arms Race”**
<https://www.repository.cam.ac.uk/handle/1810/256770>
 7. **HTTP Header injection in mobile networks (via CRAWDDAD)**
<https://crawdad.org/icsi/netalyzr-android/20150324/>
 8. **Netalyzr dataset (via DHS IMPACT)**
https://impactcybertrust.org/dataset_view?idDataset=465

Selected media coverage

Side-channels in Android apps	El Pais , 08/2019	Como saber cuando una “app” accede a la ubicacion, la camara o el microfono del movil
	CNET , 07/2019	More than 1,000 Android apps harvest data even after you deny permissions
	Independent , 07/2019	Hundreds of Android apps steal your data even if you deny permission, study reveals
	The Verge , 07/2019	Thousands of Android apps can track your phone — even if you deny permissions
	Business Insider (Spain) , 07/2019	Más de 1.300 apps te siguen espiondo el movil aunque no les hayas dado permiso, y entre las implicadas están Samsung, Baidu o Disney
	Fast Company , 07/2019	These are the sneaky new ways that Android apps are tracking you
Privacy risks of preinstalled Android software	The Register , 05/2019	Eggheads confirm: Rampant Android bloatware a privacy and security hellscape
	ABC (Spain) , 04/2019	Software preinstalado en Android: la amenaza silenciosa que acecha al usuario
	El Pais , 04/2019	Google y los fabricantes no aclaran la vigilancia oculta en los moviles Android
	Le Figaro , 04/2019	La collecte cachée des applications préinstallées sur Android
	TechCrunch , 03/2019	Android users’ security and privacy at risk from shadowy ecosystem of pre-installed software, study warns
	The Times (UK) , 03/2019	Android apps gather user data without permission
	La Vanguardia , 03/2019	Android permite a empresas acceso indebido a datos personales
	ZDNet , 03/2019	Android ecosystem of pre-installed apps is a privacy and security mess
	RTVE (TV) - Nightly news , 03/2019	Telediario 9 pm
	RNE (Radio) - Todo Noticias , 03/2019	Aplicaciones móviles que nos espían
	Cadena COPE (Radio) - Herrera en COPE , 03/2019	¿Sabes cómo tu móvil Android te espía? (Life interview)
	TV3 (TV) - News , 03/2019	Ens espein a traves del mobil?
	TV3 (TV) - Els Matins , 03/2019	Mòbils espies: la privacitat en risc (Life Interview)
	El Pais , 03/2019	Como le vigilan los móviles Android sin que lo sepa
El Pais (English) , 03/2019	I spy: How Android phones keep tabs on our every move	
Reuters , 03/2019	Study Shows Limited Control Over Privacy Breaches by Pre-Installed Android Apps	
Privacy Risks on Children Android Apps	NBC News , 12/2018	Google hit with FTC complaint over ‘inappropriate’ kids apps
	NBC (TV) - Nightly News , 05/2018	Thousands of Android apps improperly tracking kids’ data, new study shows
	The Guardian , 05/2018	Thousands of Android apps potentially violate child protection law
	Washington Post , 05/2018	Thousands of apps in Google Play Store may be illegally tracking children, study finds
	FOX News (TV) , 05/2018	Thousands of Android apps may improperly track kids’ activities
	New York Post , 05/2018	A slew of apps are creepily spying on our kids
	US Today , 05/2018	Thousands of Android apps improperly track children, study finds
	The Globe and Mail , 05/2018	Thousands of Android apps improperly tracking kids’ data, new study shows
	El Pais , 05/2018	Privacy on the net: Children’s apps are privacy risk for minors
	Fortune , 05/2018	Google Responds to Study Claiming a Majority of Children’s Android Apps Potentially Track Kids
	Engadget , 05/2018	Study finds over 3,300 Android apps improperly tracking kids
	CNET , 05/2018	Thousands of Android apps are tracking children, study finds
The Verge , 05/2018	Report finds more than half of Android apps for children are in violation of COPPA	
The Inquirer , 05/2018	Thousands of Android apps may be collecting children’s data illegally	

	Android Authority , 05/2018 Nextgov , 05/2018 Boston Globe , 03/2018 RTVE (TV) - Telediario , 12/2017 El Periodico , 12/2017	Many child-oriented apps potentially violate US' child privacy law Thousands of Apps Improperly Tracking Kids, Study Finds Facebook is just the tip of the iceberg. Thousands of apps can take your data Privacy on the net: Children's apps are privacy risk for minors "Apps" infantiles roban datos personales de menores
Security and privacy issues on commercial VPN services	NPR , 08/2017 Wired , 02/2017 Wired (UK) , 01/2017 ArsTechnica , 01/2017 The Verge , 01/2017 ABC (Australia) , 01/2017 Android Authority , 01/2017 ZDNet , 01/2017	Turning To VPNs For Online Privacy? You Might Be Putting Your Data At Risk Beware: Most Mobile VPNs Aren't as Safe as They Seem Android VPN app developers are using malware to track your data Majority of Android VPNs can't be trusted to make users more secure Most free Android VPNs leak data and many don't even use encryption, says study Viruses, spyware found in "alarming" number of Android VPN apps Researchers warn of vast problems with Android VPN apps VPNs are not as private as the name suggests
Web and mobile tracking	El Pais , 04/2020 DigitalTrends , 03/2020	El peligro de las apps: la Generalitat emplea una empresa de marketing en su aplicacion contra el coronavirus The secret way most apps spy on you even when you think they aren't
Web and mobile tracking	El Pais , 07/2019 El Pais , 07/2019 Financial Times , 10/2018 BuzzFeed , 10/2018 FastCompany , 05/2017	Quién sabe que miras porno "online" La mejor lección de la polemica de FaceApp How smartphone apps track users and share data A Lot Of Apps Sell Your Data. Here's What You Can Do About It Smartphone apps are tracking you and here's how to know what they know
Ad-blocking	Heise , 05/2016	Pagefair: Mobile Adblocker verbreiten sich rasant
Personal interviews	El Pais , 10/2019 El Comercio , 12/2017	Fuera WhatsApp y pegatinas en las camaras: qué tienen los expertos en privacidad en sus "smartphones" Mucha gente usa la tecnología sin saber lo que hay detrás y los datos que envía

Societal, regulatory and industry impact

2020	UK Competition and Market Authority (CMA) Privacy International (PI)	UK's CMA published a study into online platforms and digital advertising. The report highlights that competition is not working well in these markets, leading to substantial harm for consumers and society as a whole. Our research on mobile privacy, the privacy-risks of mobile pre-installed apps, and our analysis of mobile regulatory compliance is heavily cited in Appendix G on tracking. The report recommends that further work in collaboration with the ICO is done on pre-installed apps in the Android ecosystem. Privacy International (PI) has launched an international campaign to demand Google measures to enforce control over pre-installed Android software citing our paper.
2019	AEPD/EDPB Google Mozilla's State of the Internet Report	The AEPD (the Spanish Data Protection Agency) issued a press release to disseminate our analysis on the privacy-risks of pre-installed apps. We were later invited to present our work at the EDPB meeting in July 2019. https://www.aepd.es/prensa/2019-03-18.html We reported to Google our findings regarding side-channels and covert-channels being used by Android apps in the wild to obtain user's location and unique identifiers without consent (USENIX Security'19 paper). Google modified the Android permission model in Android 10 to eliminate these vulnerabilities. We have been rewarded with a bug bounty in exchange. https://developer.android.com/about/versions/10/privacy Mozilla's "State of the Internet Report" featured our analysis of the privacy risks of pre-installed apps https://www.transcript-publishing.com/media/pdf/1a/ce/ac/oa9783839449462.pdf
2018	Legal Actions	Multiple class action lawsuits against the developers of children's apps potentially violating the COPPA rule are using our paper's data, and cite it in their complaints. For example: https://www.theverge.com/2017/8/9/16115352/disney-sued-spying-children-gaming-apps-disney-princess-palace-pets .

Based on the above litigation, several large privacy-invasive SDK developers have agreed to injunctive relief under which they are now required to proactively ensure that their SDKs are either not used in children's apps or correctly configured to disable behavioral tracking. (The details will be publicly announced in the coming months.)

CASE: *State of New Mexico Ex. Rel. Hector Balderas, Attorney General, The State, vs. Tiny Lab Productions, Twitter Inc., Mopub, Google, Inc., Admob Inc., Aerserv LLC, Inmobi Pte Ltd., Applovin Corporation, and IronSource USA, Inc.*

<https://www.manatt.com/Manatt/media/Media/PDF/Newsletters/Advertising%20Law/New-Mexico-v-Tiny-Lab-Productions.pdf>

- Google / Apple** In response to our COPPA study, Google announced new Play Store policies for app developers with regard to children's privacy:
<https://android-developers.googleblog.com/2019/05/building-safer-google-play-for-kids.html>
 This prompted Apple to one-up Google, by creating even more stringent privacy policies for app developers:
<https://developer.apple.com/news/?id=06032019j>
- Facebook** Facebook received a copy of the results from the COPPA paper and used it to cut off API access to app developers using the Facebook SDK in child-directed apps, rewarding us with a bug bounty.
- US Senate and FTC** Three US senators asked the FTC to open an investigation about Google's lack of control over children applications published in Google Play. This prompted the FTC to revisit its COPPA rulemaking authority ahead of schedule, which will result in updates to the associated regulations.
<https://www.ftc.gov/news-events/press-releases/2019/07/ftc-seeks-comments-childrens-online-privacy-protection-act-rule>
<https://www.markey.senate.gov/imo/media/doc/FTC%20Google%20Play%20Store.pdf>
<https://www.tomudall.senate.gov/imo/media/doc/Google%20Letter%20COPPA%209.25.18.pdf>
- 2017 **Europol** Europol cited our IMC'16 paper about CGN deployments in a blogpost discussing the difficulties to attribute criminal evidence due to CGNs in a press release: *"Closing the online crime attribution crime: European Law Enforcement Takes Carrier-Grade NAT (CGN)"*
- CDT** The Center for Democracy and Technology (CDT) has leveraged our IMC'16 paper on Android VPN apps to request that the Federal Trade Commission investigates HotspotShield, one of the offending apps found in our analysis.
<https://www.cnet.com/news/hotspot-shield-vpn-privacy-accusation>
<https://www.documentcloud.org/documents/3914264-FTC-complaint-about-Hotspot-Shield.html>