NARSEO VALLINA-RODRIGUEZ

Curriculum Vitae

IMDEA Networks Institute
Avenida del Mar Mediterraneo, 22. 28918 Leganés, Madrid
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https://www.narseo.com

Google Scholar: https://scholar.google.es/citations?user=yOlNzfcAAAAJ
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

2021-Present	**IMDEA Networks Institute** Associate Research Professor (Tenured)	Madrid (Spain)
2019-Present	**AppCensus** Co-Founder	San Francisco (USA)
2016-2021	**IMDEA Networks Institute** Research Assistant Professor (Tenure track)	Madrid (Spain)
2014-2021	**International Computer Science Institute (ICSI)** Research Scientist	Berkeley (USA)
2013-2014	**International Computer Science Institute (ICSI)** 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 recognitions

2021 **Ramon y Cajal 2020 Fellow.**
Ranked 4th in the whole area of Computer Science and Telecommunications.

Best of ACM SIGCOMM CCR.
Tracking the deployment of TLS 1.3 on the web: a story of experimentation and centralization, with R. Holz, J. Hiller, J. Amann, A. Razaghpanah, T. Jost, N Vallina-Rodriguez, and O. Hohlfeld.

2020 **ACM IMC. Runner-up Best Paper Award**
Understanding Incentivized Mobile App Installs on Google Play Store, with S. Farooqi, A. Feal, T. Lauinger, D. McCoy, Z. Shafiq, and N. Vallina-Rodriguez.

Caspar Bowden Award for Outstanding Research in Privacy Enhancing Technologies
"Won't somebody think of the Children?" Examining COPPA Compliance at Scale, with Irwin Reyes, Primal Wijesekera, Joel Reardon, Amit Elazari Bar On, Abbas Razaghpanah, and Serge Egelman.

IEEE Symposium on Security and Privacy (S&P). Best Practical Paper Award
An Analysis of Pre-installed Android Software, with J. Gamba, M. Rashed, A. Razaghpanah and J. Tapiador.

AEPD Emilio Aced Award
Angel or Devil? A Privacy Study of Mobile Parental Control Apps, with A. Feal, P. Calciati, N. Vallina-Rodriguez, C. Troncoso, A. Gorla.

2019 **CNIL-INRIA Privacy Award**
An Analysis of Pre-installed Android Software, with J. Gamba, M. Rashed, A. Razaghpanah and J. Tapiador.

AEPD Emilio Aced Award
An Analysis of Pre-installed Android Software, with J. Gamba, M. Rashed, A. Razaghpanah and J. Tapiador.

USENIX Security Symposium. Distinguished Paper Award
50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions System, with J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, and S. Egelman.

2018 **Google Faculty Research Award**

ACM IMC. Distinguished Paper Award
Coming of age: A longitudinal study of TLS deployment, with P. Kotzias, A. Razaghpanah, J. Amann, K. Paterson, and J. Caballero.

ACM IMC. Community Contribution Award
A long way to the top: significance, structure, and stability of internet top lists, with Q. Scheitle, O. Holfeld, J. Gamba, J. Jelten, T. Zimmermann, and S. Strowes.

2017 **IETF/IRPF Applied Networking Research Prize**
A multi-perspective analysis of carrier-grade NAT deployment, with P. Richter, F. Wohlfart, M. Allman, R. Bush, A. Feldmann, C. Kreibich, N. Weaver, and V. Paxson.

ACM Mobicom App Contest Finalist
Lumen Privacy Monitor App

2016 **Data Transparency Lab Grant** (50K Euro)

2015 **ACM HotMiddlebox. Best-paper Award**
Header enrichment or ISP enrichment?: Emerging privacy threats in mobile networks, with S. Sundaresan, C. Kreibich, and V. Paxson.

Selected to attend the NSF NeTS Early Career Workshop

2014 **ACM CoNEXT. Best Short-paper Award**
A tangled mass: The Android root certificate stores, with J. Amann, N. Weaver, C. Kreibich and V. Paxson.

2013 **ACM CoNEXT. Runner-up for Best Paper Award**
When David helps Goliath: the case for 3G onloading, with V. Erramilli, Y. Grunenberger, L. Gyarmati, N. Laoutaris, R. Stanojevic, and K. Papagiannaki

2012 **Qualcomm Innovation Fellowship**

2010-2012 **Fitzwilliam College Scholarship**

2009-2012 **Cambridge European Trust Fellowship** (2.5K GBP/Year)

2009-2011 **Fundesfor Scholarship**

2007 **Honorable Mention for the MsC dissertation**. University of Oviedo

Funded projects and grants

2021-2026 **Ramon y Cajal Fellowship** €319K
Personal fellowship

2021-2024 **EU H2020 (Contract 101021377)** €4.6M (IMDEA share: €615K)
Principal investigator. *Enhancing Digital Security, Privacy and Trust in Software (TrustAware)*

2021 **Consumer Reports** €53K
Co-PI (PI: Julien Gamba). *Android Supply Chain Analysis*

2020-2023 **Ministery of Economy (Spain) (PID2019-111429RB-C22)** €54K
Principal investigator. *THE OPEN DIGITAL IDENTITY OBSERVATORY*

2020-2021 **Ministery of Economy (Spain). EUROPA INVESTIGACION 2020 PROGRAM (EIN2020-112344)** €9.7K
Principal investigator.

2019 **Comunidad de Madrid / EU Social Fund** €35K
Principal investigator. *Youth Employment Initiative Program*

2019-2020 **NSA** $194K
PI (Co-PIs: Serge Egelman and Michael C. Tschantz, ICSI). *Scalable Privacy Analysis*

2019 **AEPD** €18K
Principal investigator. *The Mobile Tracking Industry in Android Devices*

2019 **BBVA** €17.5K
Co-PI (PI: Juan Tapiador, UC3M). *Alternativas en la Atribucion de Identidad Digital*

2019 **Google Faculty Grant** $40.5K
Co-PI (PI: Rishab Nythianand, University of Iowa). *Unveiling Entity Relationships in Online Data Markets*

2019-2020 **Comunidad de Madrid (P2018/TCS-4499)** €703K
Researcher (PI: Antonio Fernandez Anta, IMDEA Networks). *EDGEDATA-CM. Una infraestructura para sistemas híbridos altamente descentralizados.*

2018-2021 **NSF SaTC TTP (CNS-1817248)** $515K
Collaborator (PI: Serge Egelman, ICSI). *SaTC: TTP: Small: Mobile Dynamic Privacy and Security Analysis at Scale*

2018-2020 **EU H2020 (Contract 786741)** €3.3M (IMDEA share: €250K)
Principal investigator. *GDPR Compliance Cloud Platform for Micro Enterprises (SMOOTH)*

2018-2019 **MINECO (Contract 786741)** €64K
Researcher (PI: Vincenzo Mancuso / Antonio Fernandez Anta, IMDEA Networks). *DiSCoEdge: Almacenamiento y computación distribuida en el borde (de la red)*

2017 **Telefonica** €30K
Principal Investigator. *Transparency API*

2016-2021 **NSF (Contract CNS-1564329)** $1.0M
Principal investigator. *Medium: HayStack: Fine-grained Visibility and Control of Mobile Traffic for Enhanced Performance, Privacy and Security*

2016 **Data Transparency Labs Grant** €50K
Principal Investigator. *Characterizing Indirect Privacy Leaks in Mobile Apps*

2016-2018 **EU H2020 (Contract 653449)** €4.6M (IMDEA Share: €446.250K)
Researcher (PI: Arturo Azcorra, IMDEA Networks). *Towards transparency and privacy in the online advertising busines (TYPES)*

2015-2019 **NSF (Contract CNS-1518918)** $1.8M
Researcher (PI: Vern Paxson, ICSI). *TTP Option: Large: Collaborative: Towards a Science of Censorship Resistance*

2012-2019 **NSF (Contract CNS-1237265)** $4.6M
Researcher (PI: Vern Paxson, ICSI). *Frontier: Collaborative: Beyond Technical Security: Developing an Empirical Basis for Socio-Economic Perspectives*

2012-2017	**NSF (Contract CNS-1213157)** Researcher (PI: Mark Allman, ICSI). *Large: Collaborative Research: User-Centric Network Measurement*	$721K
2012-2015	**DHS (Contract N66001-12-C-0128)** Researcher (PI: Nicholas Weaver, ICSI). *Netalyzr NG: Monitoring DNS, DNSSEC, and TLS from the Edge*	$952K
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

Scientific and 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
Jury Member	2021	CNIL-INRIA Privacy Award
	2020	ACM Mobicom Student Research Competition (SRC)
	2019	ACM IMC Best Paper Award Committee
PC member	2021	ACM SIGSAC CCS (Network Security Track) ACM Internet Measurements Conference (IMC) IEEE/IFIP TMA Conference (TMA) Privacy Enhancing Technologies Symposium (PETS)
	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 Mobiquitous 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	2020	ACM IMC. Session: *DNS*
	2019	ACM IMC. Session: *Ads* TMA. Session: *Are you experienced: QoE, streaming and Clouds*
	2018	ACM CoNEXT. Session: *Security* ACM IMC. Session: *Routing/Censorship* PETS. Session: *Tracking*
	2017	TMA. Session: *Privacy*
Student volunteer	2009	ACM Mobile Ubiquitous Multimedia (MUM)
	2006	IEEE Conference on Peer-to-Peer Computing (P2P)
Institutional service	2021 2020	Chair of IMDEA Networks Ethical Board Editor for Maria de Maetzu's proposal 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	**Ermias Walelgne**	Aalto University (FI)
		Mohammad Taha Khan	UIC (USA)
	2019	**Platon Kotzias**	IMDEA Software / UPM (Spain)
	2018	**Pol Mac Aonghusa**	Trinity College Dublin (Ireland)
Ph.D prelims	2019	**Imane Fouad** —Comite de Suivi Individuel	INRIA (France)
		Mohammad Taha Khan	UIC (USA)
	2018	**Abbas Razaghpanah**	SBU (USA)
MsC tribunal	2017	**Eduardo Acha**	Universidad de Chile (Chile)

Publications

Bibliometrics	Citation count:	**2,898**
	h-index:	**30**
	i10-index:	**45**

Refereed journal papers

1. **Blocklist Babel: On the Transparency and Dynamics of Open Source Blocklisting**
   A. Feal, P. Vallina, J. Gamba, S. Pastrana, A. Nappa, O. Hohlfeld, N. Vallina-Rodriguez, J. Tapiador

IEEE Transactions on Network and Service Management, 2021 [**Q1**]

2. **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
   Best of ACM SIGCOMM CCR
3. **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
4. **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
5. **Privacy and Surveillance in the Mobile Ecosystem**
   J. Tapiador, and N. Vallina-Rodriguez
   European Public Mosaic - Open Journal on Public Service. Issue 11, 2020
6. **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 [**JCR Impact Factor: Q1**]
7. **"Won't Somebody Think of the Children?" Examining COPPA Compliance at Scale**
   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
   Caspar Bowden Award for Outstanding Research in Privacy Enhancing Technologies. 2020
8. **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)]**
9. **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
10. **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
11. **Energy Management Techniques in Modern Mobile Handsets**
    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)]**

Refereed conference papers

12. **IoTLS: Understanding TLS Usage in Consumer IoT Devices**
    M. T. Paracha, D. J. Dubois, N. Vallina-Rodriguez, D. Choffnes
    ACM IMC, 2021 **[Acceptance Rate: 28.0%]**
13. **Blind In/On-Path Attacks and Applications to VPNs**
    W. J. Tolley, B. Kujath, M. Taha Khan, N. Vallina-Rodriguez, J. R. Crandall
    USENIX Security Symposium, 2021 **[Acceptance Rate: 18.8%]**
14. **Trouble Over-The-Air: An Analysis of FOTA Apps in the Android Ecosystem**
    E. Blazquez, S. Pastrana, A. Feal, J. Gamba, P. Kotzias, N. Vallina-Rodriguez, J. Tapiador
    IEEE Symposium on Security and Privacy (S&P), 2021 **[Acceptance Rate: 12.0%]**
15. **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

ACM IMC, 2020 **[Acceptance Rate: 24.5%]**

16. **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
ACM IMC, 2020 **[Acceptance Rate: 24.5%]**
17. **Understanding Incentivized Mobile App Installs on Google Play Store**
S. Farooqi, A. Feal, T. Lauinger, D. McCoy, Z. Shafiq, N. Vallina-Rodriguez
ACM IMC, 2020 **[Acceptance Rate: 24.5%]**
Runner-up Best-paper Award
18. **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
19. **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%]**
20. **Encrypted DNS –¿ Privacy? A Traffic Analysis Perspective**
S. Siby, M. Juarez, N. Vallina-Rodriguez, C. Diaz, C. Troncoso
NDSS Symposium, 2020 **[Acceptance Rate: 17.4%]**
21. **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%]**
22. **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
23. **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
24. **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%]**
25. **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%]**
26. **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
27. **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%]**
28. **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%]**
29. **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%]**
30. **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%]**

31. **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%]**
32. **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%]**
33. **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%]**
34. **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%]**
35. **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
36. **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%]**
37. **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%]**
38. **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%]**
39. **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%]**
40. **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%]**

Book chapters

41. **Don't accept candy 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 Book, 2021
42. **The Case for Context-Aware Resources Management in Mobile Operating Systems**
N. Vallina-Rodriguez, P. Hui, and J. Crowcroft
Mobile Context Awareness, 2012

Refereed workshop papers

43. **Towards an Internet Traffic Map**
T. Koch, W. Jiang, T. Luo, P. Gigis, K. Vermeulen, E. Aben, M. Calder, E. Katz-Bassett, L. Manassakis, G. Smaragdakis, N. Vallina-Rodriguez
ACM HotNets, 2021 **[Acceptance Rate: 30.0%]**
44. **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: -%]**
45. **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: -%]**

46. **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
47. **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%]**
48. **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%]**
49. **"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
50. **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%]**
51. **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 FOCI, 2016 **[Acceptance Rate: 35.0%]**
52. **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
53. **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%]**
54. **Enabling Opportunistic Resources Sharing on Mobile Operating Systems: Benefits and Challenges**
N. Vallina-Rodriguez, C. Efstratiou, G. Xie, and J. Crowcroft
ACM S3, 2011
55. **ErdOS: Achieving Energy Savings in Mobile OS**
N. Vallina-Rodriguez and J. Crowcroft
ACM MobiArch, 2011 **[Acceptance Rate: 50.0%]**
56. **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%]**
57. **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

58. **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
59. **"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

60. **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%]

61. **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

62. **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
63. **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
64. **Examining COPPA Compliance at Scale**
I. Reyes, P. Wijesekera, J. Reardon, A. Elazari, A. Razaghpanah, N. Vallina-Rodriguez, and S. Egelman
Usenix SOUPS, 2018
65. **A Study on the Privacy Implications of Mobile Parental Control Apps**
A. Feal, J. Gamba, N. Vallina-Rodríguez, C. Troncoso, A. Gorla, P. Calciati
OPERANDI (PETS), 2018
66. **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
67. **A Study on the Privacy Implications of Mobile Parental Control Apps**
A. Feal, J. Gamba, N. Vallina-Rodríguez, C. Troncoso, A. Gorla, P. Calciati
TMA, 2018
68. **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
69. **Characterising users experience and critical path in mobile applications**
A. Finamore, J. Newman, D. Perino, N. Rattanavipanon, C. Soriente, and N. Vallina-Rodriguez
ACM IMC, 2017
70. **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
71. **Lumen: Fine-Grained Visibility and Control of Mobile Traffic in User-Space**
N. Vallina-Rodriguez, C. Kreibich, M. Allman, and V. Paxson
NSF SaTC PI-meeting, 2017
72. **A client-side analysis of TLS usage in mobile apps**
A Razaghpanah, N Vallina-Rodriguez, and P Gill
Usenix Security, 2016
73. **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
74. **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
75. **ErdOS: An energy-aware social operating system for mobile handsets**
N. Vallina-Rodriguez and J. Crowcroft
OSDI, 2010
76. **Goose: social network services for developing regions and rural areas**
N. Vallina-Rodriguez, P.Hui, and J. Crowcroft
ACM SIGCOMM, 2009

Magazine articles

77. **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

78. **7 in 10 smartphone apps share your data with third-party services**
N. Vallina-Rodriguez, and S. Sundaresan
Communications of ACM, 2017

79. **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

80. **Back in control–An extensible middle-box on your phone**
J. Newman, A. Razaghpanah, N. Vallina-Rodriguez, F. Bustamante, M. Allman, D. Perino, A. Finamore
Arxiv, 2020

81. **JPush Away Your Privacy: A Case Study of Jiguang's Android SDK**
J. Reardon, N. Good, R. Richter, N. Vallina-Rodriguez, S. Egelman, and Q. Palfrey
ICSI Tech Report, 2020

82. **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

83. **Cross-layer analysis of energy and spectrum waste of mobile applications**
N. Vallina-Rodriguez
University of Cambridge, 2013

Patents

1. Automatic identification of applications that circumvent permissions and/or obfuscation data flows. (US Patent)
J. Reardon, N. Vallina-Rodriguez, S. Egelman, N. Good
Filed: 09.2020 (Under review)
2. 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

CVEs / Vulnerability disclosures

2021	**CVE-2021-31815**	GAEN	Severity 3.3 (NIST NVD)
2020	**CVE-2020-0293**	Android	Severity 5.5 (NIST NVD)
	CVE-2020-0454	Android	Severity 5.5 (NIST NVD)
	CVE-2020-26230	Radar Covid	Severity 7.4 (Github CNA)
2019	**CVE-2019-9461**	Android Kernel	Severity 6.5 (NIST NVD)
	CVE-2019-14899	Linux, FreeBSD, OpenBSD, MacOS, iOS, and Android	Severity 7.4 (NIST NVD)

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	2021	**6th International Workshop on Traffic Measurements for Cybersecurity (WTMC 2021)**. Co-located with the 42nd IEEE Symposium on Security and Privacy Measuring the Android Supply Chain: Privacy and Security Risks	Virtual
	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** Real Mobile/Wireless Broadband: Trailblazing into the future	Fukuoka (JP)
	2014	**NANOG 62** Understanding User Experience on Mobile Devices with the ICSI Netalyzr	Baltimore (USA)
Divulgation	2021	**Gijón conCiencia** La realidad de las tecnologías de seguimiento y monitorización en línea	Gijón (ES)
	2019	**European Researcher's Night** (MSCA) IMDEA-CSI	Madrid (ES)
	2017	**European Researcher's Night** (MSCA) IMDEA-CSI	Madrid (ES)

Talks / seminars

European Data Protection Board (Expert meeting) (Belgium), 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 de Comillas / ICAI (Spain), Universidad Rey Juan Carlos (Spain), INCIBE (Spain), Telefonica Alpha (Spain), Jornadas RediMadrid 2020 (Spain), Telefonica Research (Spain), ETH Zurich (Switzerland), Alan Turing Institute (U.K.), 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**, Patricia Callejo at **RIPE 76**, and Oliver Gasser at **RIPE 81**), IETF meetings (Muhammad Talha Parach, **IRTF MAPRG at IETF-112**, Oliver Gasser, **IETF-109 MAPRG**, Sandra Siby, **IETF-105**) **Weizembaun Institute** (Georgios Smaragdakis), **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	10/2019	Abbas Razaghpanah	Stony Brook University †
Postdocs	04/2021 - 10/2021	Srdjan Matic	IMDEA Networks
	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	10/2020 - 12/2020	Ali Davanian (UC Riverside)	ICSI
	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	04/2021 - 07/2021	Daniel Santa Olalla Peña (UC3M)	IMDEA Networks
	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

2020-2021	**MsC in Cybersecurity (CiberJueves)**	Universidad de Comillas (ES)
	Guest lecturer: No aceptes caramelos de extraños!": Privacidad y regulación en tecnologías móviles (1.5h)	
2019-2020	**MsC in Cybersecurity**	UC3M (ES)
	Guest lecturer: Mobile Applications, Trackers and Privacy (1.5h)	
	MsC Telematics	UC3M (ES)
	Guest lecturer: Internet Measurements (1.5h)	
	PhD School	UC3M (ES)
	Guest lecturer: Internet Measurements (15h)	
2018-2019	**5th Interdisciplinary Summerschool on Privacy (ISP 2019)**	Nijmegen (NL)
	Have I given consent to this? Analyzing the transparency of Mobile products (2h)	
	TMA PhD School	Paris (FR)
	Studying Mobile Traffic with the Lumen Traffic Monitor	
	MsC in Cybersecurity	UC3M (ES)
	Guest lecturer: Towards Building a Complete Picture of the Privacy Risks in Android (1.5h)	
	MsC in Telematics Engineering	UC3M (ES)
	Guest lecturer: Measuring moible traffic (1.5h)	
2017-2018	**MsC in Telematics Engineering**	UC3M (ES)
	Guest lecturer: Crowdsourcing mobile measurements (1.5h)	
2016-2017	**MsC in Telematics Engineering**	UC3M (ES)
	Guest lecturer: Crowdsourcing mobile measurements (1.5h)	
2016	**Spring School on Networks**	NIC Labs (Chile)
	Guest lecturer: Analisis Empirico de Sistemas Moviles: Iluminando El Lado Oscuro (1h)	
2011-2012	**BsC in Computer Science**	University of Cambridge (UK)
	Student supervisor: Principles of Communications (Lecturer: Prof. Jon Crowcroft)	
2010-2011	**BsC in Computer Science**	University of Cambridge (UK)
	Student supervisor: Principles of Communications (Lecturer: Prof. Jon Crowcroft)	
2009-2010	**BsC in Computer Science**	University of Cambridge (UK)
	Student supervisor: Advanced Systems Topics (Lecturer: Prof. Steve Hand)	
2009-2010	**BsC in Computer Science**	University of Cambridge (UK)
	Student supervisor: Digital Communications II (Lecturer: Prof. Jon Crowcroft)	

Software

My team has been actively involved in the development of publicly available software for mobile software analysis, network analysis and network troubleshooting.

1. **Dextripador**
   https://github.com/Android-Observatory/Dextripador
   A tool to extract the DEX file from ODEX compiled ahead of time version.
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. **Understanding Incentivized Mobile App Installs on Google Play Store**
   https://www.github.com/shehrozef/IncentInstalls
2. **Data sets for paper "Tracking the deployment of TLS 1.3 on the Web: A story of experimentation and centralization"**
   https://dx.doi.org/10.25606/SURF.ec84cf2afb7e9096
3. **Android Observatory (Datasets and tools)**
   https://www.androidobservatory.com
   Contains several datasets, tools, and research artefacts used in published work in the area of Android app analysis, and mobile privacy and security.
4. **Domain Ranks**
   https://toplists.github.io
5. **TLS Client Fingerprints**
   https://github.com/platonK/tls_fingerprints
6. **CloudMap** (dataset and code)
   http://wireless.networks.imdea.org/cloudmap-project
7. **TLS handshake fingerpints for more than 30K Android apps**
   https://haystack.mobi/datasets.html
8. **Research data supporting "Adblocking and Counter-Blocking: A Slice of the Arms Race"**
   https://www.repository.cam.ac.uk/handle/1810/256770
9. **HTTP Header injection in mobile networks** (via CRAWDAD)
   https://crawdad.org/icsi/netalyzr-android/20150324/
10. **Netalyzr dataset** (via DHS IMPACT)
    https://impactcybertrust.org/dataset_view?idDataset=465

Selected media coverage

COVID-19 traffic shifts	**El Pais**, 03/2021	La nueva normalidad de nuestro consumo de internet: cuando ya no se distingue un martes del fin de semana
Parental-control apps	**Maldita.es**, 08/2021	Aplicaciones de control parental, acelerómetros en los móviles y propinas en UberEats: todo en el 60^0 consultorio de Maldita Tecnología
	Atresmedia.com, 05/2021	Ojo a los datos que piden las "apps" de control parental
	Business Insider (Spain), 02/2021	Several parental control apps are privacy oaque and manipulate data for advertising purposes, research finds
	La Repubblica (Italy), 02/2021	Nella giungla delle app per il controllo parentale, minaccia per bambini e genitori
	La Vanguardia, 07/2019	Estudio hispanosuizo alerta sobre riesgos de aplicaciones de control parental
Privacy risks of Contact-Tracing Apps	**El Pais (Spain)**, 04/2021	Una investigación revela un error de Google en la privacidad de las aplicaciones de rastreo de contactos.
	The Verge, 04/2021	Android bug exposed COVID-19 contact tracing logs to preinstalled apps.
	The Markup, 04/2021	Google Promised Its Contact Tracing App Was Completely Private—But It Wasn't.
	El Pais (Spain), 10/2020	El Gobierno da finalmente los detalles de la brecha de seguridad de Radar Covid

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 espiando 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 preloaded 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	**Law360**, 08/2020	Disney, Viacom Agree To Limit Data Collection In Kids 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	Many child-oriented apps potentially violate US’ child privacy law
	Nextgov, 05/2018	Thousands of Apps Improperly Tracking Kids, Study Finds
	Boston Globe, 03/2018	Facebook is just the tip of the iceberg. Thousands of apps can take your data
	RTVE (TV) - Telediario, 12/2017	Privacy on the net: Children’s apps are privacy risk for minors
	El Periodico, 12/2017	“Apps” infantiles roban datos personales de menores
VPN services and their risks	**NPR**, 08/2017	Turning To VPNs For Online Privacy? You Might Be Putting Your Data At Risk
	Wired, 02/2017	Beware: Most Mobile VPNs Aren’t as Safe as They Seem

	Wired (UK), 01/2017	Android VPN app developers are using malware to track your data
	ArsTechnica, 01/2017	Majority of Android VPNs can't be trusted to make users more secure
	The Verge, 01/2017	Most free Android VPNs leak data and many don't even use encryption, says study
	ABC (Australia), 01/2017	Viruses, spyware found in "alarming" number of Android VPN apps
	Android Authority, 01/2017	Researchers warn of vast problems with Android VPN apps
	ZDNet, 01/2017	VPNs are not as private as the name suggests
Web and mobile tracking	**Newtral**, 09/2021	Los datos de geolocalización que recoge tu móvil: entre el riesgo y la promesa
	Android Central, 06/2021	Why Google's plan to reduce Android ad tracking is both smart and sneaky
	El Pais, 04/2020	El peligro de las apps: la Generalitat emplea una empresa de marketing en su aplicacion contra el coronavirus
	DigitalTrends, 03/2020	The secret way most apps spy on you even when you think they aren't
	El Pais, 07/2019	Quién sabe que miras porno "online"
	El Pais, 07/2019	La mejor lección de la polemica de FaceApp
	Financial Times, 10/2018	How smartphone apps track users and share data
	BuzzFeed, 10/2018	A Lot Of Apps Sell Your Data. Here's What You Can Do About It
	FastCompany, 05/2017	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 Comercio**, 11/2021	En cada aplicación de nuestro móvil hay cinco empresas monitorizando nuestra vida
	El Pais, 10/2021	Por qué la recomendación de deshacerse de los móviles Xiaomi revela una amenaza más grave de lo que parece
	El Pais, 10/2019	Fuera WhatsApp y pegatinas en las camaras: qué tienen los expertos en privacidad en sus "smartphones"
	El Pais, 10/2019	Por qué Facebook se ha caído tantas veces este año
	El Comercio, 12/2017	Mucha gente usa la tecnología sin saber lo que hay detrás y los datos que envía

Societal, regulatory and industry impact

2021	**Covid-19 impact on Internet Traffic**	Our ACM IMC'20 paper about the impact that the confinement measures implemented to combat the Covid-19 pandemic had on Internet traffic has been extensively covered in an informational RFC (RFC 9075). `https://www.rfc-editor.org/rfc/rfc9075.html` The national agency in charge of regulating telecommunications in France, ARCEP, has also cited our paper in their "State of the Internet in France 2021". `https://en.arcep.fr/uploads/tx_gspublication/report-state-internet-2021-edition-july2021.pdf`
	COPPA Rule. USA Congress	As a result of our PETS'18 paper about the privacy risks of children-oriented apps, my co-author Serge Egelman testified to the US Congress on May 18th 2021 on the hearing "Protecting Kids Online: Internet Privacy and Manipulative Marketing". `https://www.commerce.senate.gov/services/files/0DC78E9D-88B2-4D54-8F4A-AE7B4C7D0EF6`
	COPPA Rule. USA FTC	The Center for Digital Democracy and the Campaign for a Commercial-free Childhood launched a request to the USA FTC to investigate Google's potentially unfair and deceptive practices in marketing apps for children citing our PETS'18 paper. `https://www.democraticmedia.org/sites/default/files/field/public-files/2021/google_play_complaint_final_with_exhibits_3_31_21_0.pdf`
	Privacy and Security risks of Contact-tracing Apps	We have identified and reported two vulnerabilities in Google's Exposure Notification API (CVE-2021-0575) and in the national Contact-Tracing app developed by the Spanish government (Radar Covid) (CVE-2020-26230). Both vulnerabilities could compromise users' privacy and digital rights of hundreds of millions of users. They have been fixed by Google and the Spanish health authority, respectively, after our disclosure.
2020	**UK Competition and Market Authority (CMA)**	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)	Privacy International (PI) has launched an international campaign to demand Google measures to enforce control over pre-installed Android software citing our paper.
	Cloudflare	After our responsible disclosure, Cloudflare added padding to their DoH implementations in order to prevent traffic fingerpinting attacks (paper published at NDSS 2020).
2019	**AEPD/EDPB**	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
	Google	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	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 resulting from our COPPA study**	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
	COPPA and 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 In April 2021, Apple cited our paper in its educational report *A Day in the Life of Your Data*. https://www.apple.com/privacy/docs/A_Day_in_the_Life_of_Your_Data.pdf
	COPPA and 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. In May 2021, co-author Dr. Egelman testified on this matter to the US Senate. 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 [1]
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 Takles 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

[1] https://www.commerce.senate.gov/services/files/0DC78E9D-88B2-4D54-8F4A-AE7B4C7D0EF6