## **Bibliography**

- [1] The no-nonsense guide to app monetization.

  URL: https://admob.google.com/home/resources/
  non-nonsense-guide-to-app-monetization-google-admob/.
- [2] Directive 95/46/ec of the european parliament and of the council of 24 october 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. European Parliament and Council of the European Union, L. 281:31, 1995. URL: https://perma.cc/8AE4-TBP8.
- [3] Understanding the Personal Data Economy: The Emergence of a New Data Value-Exchange. Mobile Ecosystem Forum, 2016. URL: http://perma.cc/A6HZ-W79T.
- [4] Theodore Book and Dan S. Wallach. A case of collusion: A study of the interface between ad libraries and their apps. In *Proceedings of the* Third ACM Workshop on Security and Privacy in Smartphones Mobile Devices, SPSM '13, page 79–86, New York, NY, USA, 2013. Association for Computing Machinery. doi:10.1145/2516760.2516762.
- [5] Millissa F.Y. Cheung and W.M. To. The influence of the propensity to trust on mobile users' attitudes toward in-app advertisements. *Comput. Hum.*

- Behav., 76(C):102-111, November 2017. doi:10.1016/j.chb.2017.07.011.
- [6] Erika Chin, Adrienne Porter Felt, Vyas Sekar, and David Wagner. Measuring user confidence in smartphone security and privacy. In *Proceedings of the Eighth Symposium on Usable Privacy and Security*, SOUPS '12, New York, NY, USA, 2012. Association for Computing Machinery. doi:10.1145/2335356.2335358.
- [7] J. Clement. Worldwide mobile app revenues in 2014 to 2023. Statista, Inc., 2020. URL: https://perma.cc/EV79-S89U.
- [8] Cynthia L. Corritore, Beverly Kracher, and Susan Wiedenbeck. On-line trust: Concepts, evolving themes, a model. Int. J. Hum.-Comput. Stud., 58(6):737-758, June 2003. doi:10.1016/S1071-5819(03)00041-7.
- [9] Lorrie Faith Cranor. A framework for reasoning about the human in the loop. In *UPSEC*, 2008.
- [10] T. Dang, Z. Yan, F. Tong, W. Zhang, and P. Zhang. Implementation of a trust-behavior based reputation system for mobile applications. In 2014 Ninth International Conference on Broadband and Wireless Computing, Communication and Applications, pages 221–228, 2014.
- [11] Amit Datta, Anupam Datta, Jael Makagon, Deirdre K. Mulligan, and Michael Carl Tschantz. Discrimination in online advertising: A multidisciplinary inquiry. In Sorelle A. Friedler and Christo Wilson, editors, Proceedings of the 1st Conference on Fairness, Accountability and Transparency, volume 81 of Proceedings of Machine Learning Research, pages 20–34, New York, NY, USA, 23–24 Feb 2018. PMLR. URL: http://proceedings.mlr.press/v81/datta18a.html.

- [12] G. Dini, F. Martinelli, I. Matteucci, M. Petrocchi, A. Saracino, and D. Sgandurra. Evaluating the trust of android applications through an adaptive and distributed multi-criteria approach. In 2013 12th IEEE International Conference on Trust, Security and Privacy in Computing and Communications, pages 1541–1546, 2013.
- [13] Stacy-Ann Elvy. Paying for privacy and the personal data economy. Columbia Law Review, 117(6), Oct 2017. URL: https://perma.cc/ D9N3-KRXG.
- [14] Adrienne Porter Felt, Erika Chin, Steve Hanna, Dawn Song, and David Wagner. Android permissions demystified. In *Proceedings of the 18th ACM Conference on Computer and Communications Security*, CCS '11, page 627–638, New York, NY, USA, 2011. Association for Computing Machinery. doi:10.1145/2046707.2046779.
- [15] Adrienne Porter Felt, Serge Egelman, and David Wagner. I've got 99 problems, but vibration ain't one: A survey of smartphone users' concerns. In Proceedings of the Second ACM Workshop on Security and Privacy in Smartphones and Mobile Devices, SPSM '12, page 33-44, New York, NY, USA, 2012. Association for Computing Machinery. doi:10.1145/2381934. 2381943.
- [16] Adrienne Porter Felt, Elizabeth Ha, Serge Egelman, Ariel Haney, Erika Chin, and David Wagner. Android permissions: User attention, comprehension, and behavior. In *Proceedings of the Eighth Symposium on Usable* Privacy and Security, SOUPS '12, New York, NY, USA, 2012. Association for Computing Machinery. doi:10.1145/2335356.2335360.
- [17] Jinjuan Feng, Jonathan Lazar, and Jenny Preece. Empathy and online interpersonal trust: A fragile relationship. Behaviour & Informa-

- tion Technology, 23(2):97-106, 2004. arXiv:https://doi.org/10.1080/01449290310001659240, doi:10.1080/01449290310001659240.
- [18] Yolanda Gil and Donovan Artz. Towards content trust of web resources. Web Semant., 5(4):227-239, December 2007. doi:10.1016/j.websem. 2007.09.005.
- [19] Alyssa Glass, Deborah L. McGuinness, and Michael Wolverton. Toward establishing trust in adaptive agents. In *Proceedings of the 13th Interna*tional Conference on Intelligent User Interfaces, IUI '08, page 227–236, New York, NY, USA, 2008. Association for Computing Machinery. doi: 10.1145/1378773.1378804.
- [20] Saikat Guha, Bin Cheng, and Paul Francis. Privad: Practical privacy in online advertising. In Proceedings of the 8th USENIX Conference on Networked Systems Design and Implementation, NSDI'11, page 169–182, USA, 2011. USENIX Association.
- [21] Andra Gumbus and Frances Grodzinsky. Era of big data: Danger of descrimination. SIGCAS Comput. Soc., 45(3):118–125, January 2016. doi:10.1145/2874239.2874256.
- [22] Gabriella M. Harari, Nicholas D. Lane, Rui Wang, Benjamin Crosier, Andrew T. Campbell, and Samuel D. Gosling. Using smartphones to collect behavioral data in psychological science: Opportunities, practical considerations, and challenges. Perspectives on psychological science: a journal of the Association for Psychological Science, 11 6:838–854, 2016.
- [23] Connor Huff and Dustin Tingley. "who are these people?" evaluating the demographic characteristics and political preferences of mturk survey respondents. Research & Politics, 2(3):2053168015604648,

- 2015. arXiv:https://doi.org/10.1177/2053168015604648, doi:10.1177/2053168015604648.
- [24] Carlos Jensen, Colin Potts, and Christian Jensen. Privacy practices of internet users: Self-reports versus observed behavior. *Int. J. Hum.-Comput. Stud.*, 63(1–2):203–227, July 2005. doi:10.1016/j.ijhcs.2005.04.019.
- [25] Jinseong Jeon, Kristopher K. Micinski, Jeffrey A. Vaughan, Ari Fogel, Nikhilesh Reddy, Jeffrey S. Foster, and Todd Millstein. Dr. android and mr. hide: Fine-grained permissions in android applications. In *Proceedings* of the Second ACM Workshop on Security and Privacy in Smartphones and Mobile Devices, SPSM '12, page 3–14, New York, NY, USA, 2012. Association for Computing Machinery. doi:10.1145/2381934.2381938.
- [26] Patrick Gage Kelley, Lorrie Faith Cranor, and Norman M. Sadeh. Privacy as part of the app decision-making process. In CHI '13, 2013.
- [27] Ponnurangam Kumaraguru and Lorrie Faith Cranor. Privacy indexes: A survey of westin's studies, 2005.
- [28] Karen EC Levy. Intimate surveillance. Idaho L. Rev., 51:679, 2014.
- [29] Bin Liu, Bin Liu, Hongxia Jin, and Ramesh Govindan. Efficient privilege de-escalation for ad libraries in mobile apps. In Proceedings of the 13th Annual International Conference on Mobile Systems, Applications, and Services, MobiSys '15, page 89–103, New York, NY, USA, 2015. Association for Computing Machinery. doi:10.1145/2742647.2742668.
- [30] Donna Lu. The femtech gold rush. New Scientist, 242:20-21, 2019.
- [31] Nicole Martin. Uber charges more if they think you're willing to pay more. Forbes, Mar 2019. URL: https://perma.cc/Q5TU-S9X2.

- [32] Viktor Mayer-Schnberger. Big Data: A Revolution That Will Transform How We Live, Work and Think. Viktor Mayer-Schnberger and Kenneth Cukier. John Murray Publishers, London, GBR, 2013.
- [33] Erika L McCallister, Timothy Grance, and Karen Scarfone. Sp 800-122. guide to protecting the confidentiality of personally identifiable information (pii). 2010.
- [34] Aleecia M. McDonald and Lorrie Faith Cranor. The cost of reading privacy policies. In I/S: A Journal of Law and Policy for the Information Society, 2008.
- [35] Aleecia M. McDonald, Robert W. Reeder, Patrick Gage Kelley, and Lorrie Faith Cranor. A comparative study of online privacy policies and formats. In Ian Goldberg and Mikhail J. Atallah, editors, *Privacy Enhancing Technologies*, pages 37–55, Berlin, Heidelberg, 2009. Springer Berlin Heidelberg.
- [36] D. Harrison Mcknight, Michelle Carter, Jason Bennett Thatcher, and Paul F. Clay. Trust in a specific technology: An investigation of its components and measures. ACM Trans. Manage. Inf. Syst., 2(2), July 2011. doi:10.1145/1985347.1985353.
- [37] Wei Meng, Ren Ding, Simon Chung, Steven Han, and Wenke Lee. The price of free: Privacy leakage in personalized mobile in-app ads. NDSS, 2016. doi:10.14722/ndss.2016.23353.
- [38] Michelle L. Moglia, Henry V. Nguyen, Kathy Chyjek, Katherine T. Chen, and Paula M. Castaño. Evaluation of smartphone menstrual cycle tracking applications using an adapted applications scoring system. Obstetrics & Gynecology, 127(6), 2016. URL:

- https://journals.lww.com/greenjournal/Fulltext/2016/06000/ Evaluation\_of\_Smartphone\_Menstrual\_Cycle\_Tracking.24.aspx.
- [39] Helen Nissenbaum. Privacy in Context Technology, Policy, and the Integrity of Social Life. Standford University Press, 2010.
- [40] Mi Noh and Kyung Lee. An analysis of the relationship between quality and user acceptance in smartphone apps. *Information Systems and e-Business Management*, 14:1–19, 06 2015. doi:10.1007/s10257-015-0283-6.
- [41] Paul Pearce, Adrienne Felt, Gabriel Nunez, and David Wagner. Addroid: Privilege separation for applications and advertisers in android. ASIACCS 2012 - 7th ACM Symposium on Information, Computer and Communications Security, 05 2012. doi:10.1145/2414456.2414498.
- [42] Evan K. Perrault and Seth P. McCullock. Concise consent forms appreciated—still not comprehended: Applying revised common rule guidelines in online studies. *Journal of Empirical Research on Human Research Ethics*, 14(4):299–306, 2019. PMID: 31169051. arXiv:https://doi.org/10.1177/1556264619853453, doi:10.1177/1556264619853453.
- [43] Bahman Rashidi, Carol Fung, Gerrit Bond, Steven Jackson, Marcus Pare, and Tam Vu. Demo: Recdroid: An android resource access permission recommendation system. In Proceedings of the 16th ACM International Symposium on Mobile Ad Hoc Networking and Computing, MobiHoc '15, page 403–404, New York, NY, USA, 2015. Association for Computing Machinery. doi:10.1145/2746285.2764930.
- [44] Joel Reardon, Álvaro Feal, Primal Wijesekera, Amit Elazari Bar On, Narseo Vallina-Rodriguez, and Serge Egelman. 50 ways to leak your data: An exploration of apps' circumvention of the android permissions system. In 28th USENIX Security Symposium (USENIX Security

- 19), pages 603-620, Santa Clara, CA, August 2019. USENIX Association. URL: https://www.usenix.org/conference/usenixsecurity19/presentation/reardon.
- [45] Jingjing Ren, Ashwin Rao, Martina Lindorfer, Arnaud Legout, and David Choffnes. Recon: Revealing and controlling pii leaks in mobile network traffic. In Proceedings of the 14th Annual International Conference on Mobile Systems, Applications, and Services, MobiSys '16, page 361–374, New York, NY, USA, 2016. Association for Computing Machinery. doi: 10.1145/2906388.2906392.
- [46] F. Roesner, T. Kohno, A. Moshchuk, B. Parno, H. J. Wang, and C. Cowan. User-driven access control: Rethinking permission granting in modern operating systems. In 2012 IEEE Symposium on Security and Privacy, pages 224–238, 2012.
- [47] Celia Rosas. The future is femtech: Privacy and data security issues surrounding femtech applications. *Business law journal*, 15:319, 2019.
- [48] Bhaskar Sarma, Ninghui Li, Chris Gates, Rahul Potharaju, Cristina Nita-Rotaru, and Ian Molloy. Android permissions: A perspective combining risks and benefits. Proceedings of ACM Symposium on Access Control Models and Technologies, SACMAT, 06 2012. doi:10.1145/2295136.2295141.
- [49] James Sellwood and Jason Crampton. Sleeping android: The danger of dormant permissions. In Proceedings of the Third ACM Workshop on Security and Privacy in Smartphones Mobile Devices, SPSM '13, page 55–66, New York, NY, USA, 2013. Association for Computing Machinery. doi:10.1145/2516760.2516774.

- [50] Jaebaek Seo, Daehyeok Kim, Donghyun Cho, Taesoo Kim, and Insik Shin. Flexdroid: Enforcing in-app privilege separation in android. 02 2016. doi: 10.14722/ndss.2016.23485.
- [51] Till Speicher, Muhammad Ali, Giridhari Venkatadri, Filipe Nunes Ribeiro, George Arvanitakis, Fabrício Benevenuto, Krishna P. Gummadi, Patrick Loiseau, and Alan Mislove. Potential for discrimination in online targeted advertising. In Sorelle A. Friedler and Christo Wilson, editors, Proceedings of the 1st Conference on Fairness, Accountability and Transparency, volume 81 of Proceedings of Machine Learning Research, pages 5–19, New York, NY, USA, 23–24 Feb 2018. PMLR. URL: http://proceedings.mlr.press/v81/speicher18a.html.
- [52] Christopher Thompson, Maritza Johnson, Serge Egelman, David Wagner, and Jennifer King. When it's better to ask forgiveness than get permission: Attribution mechanisms for smartphone resources. In *Proceedings of the Ninth Symposium on Usable Privacy and Security*, SOUPS '13, New York, NY, USA, 2013. Association for Computing Machinery. doi:10.1145/2501604.2501605.
- [53] Dongqi Wang, Shuaifu Dai, Yu Ding, Tongxin Li, and Xinhui Han. Poster: Adhoneydroid – capture malicious android advertisements. In Proceedings of the 2014 ACM SIGSAC Conference on Computer and Communications Security, CCS '14, page 1514–1516, New York, NY, USA, 2014. Association for Computing Machinery. doi:10.1145/2660267.2662395.
- [54] Na Wang, Bo Zhang, Bin Liu, and Hongxia Jin. Investigating effects of control and ads awareness on android users' privacy behaviors and perceptions. In Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services, MobileHCI '15,

- page 373–382, New York, NY, USA, 2015. Association for Computing Machinery. doi:10.1145/2785830.2785845.
- [55] R. Weiss, L. Reznik, Y. Zhuang, A. Hoffman, D. Pollard, A. Rafetseder, T. Li, and J. Cappos. Trust evaluation in mobile devices: An empirical study. In 2015 IEEE Trustcom/BigDataSE/ISPA, volume 1, pages 25–32, 2015.
- [56] Gillian B. White. When algorithms don't account for civil rights. *The Atlantic*, Mar 2017. URL: https://perma.cc/3QLJ-CX6R.
- [57] Kun Yu, Shlomo Berkovsky, Ronnie Taib, Dan Conway, Jianlong Zhou, and Fang Chen. User trust dynamics: An investigation driven by differences in system performance. In *Proceedings of the 22nd International Conference on Intelligent User Interfaces*, IUI '17, page 307–317, New York, NY, USA, 2017. Association for Computing Machinery. doi: 10.1145/3025171.3025219.
- [58] L. Yu, X. Luo, X. Liu, and T. Zhang. Can we trust the privacy policies of android apps? In 2016 46th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), pages 538–549, 2016.