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| Tom Lodge  Research Fellow, Full-stack developer | http://tomlodge.info  tlodge@gmail.com  **+44**7972639571 | |
| I am a Research Fellow and developer at **Nottingham University**. I have worked on a broad variety of projects, with a wide range of industrial partners and have built up expertise in technologies right across the stack, from low-level network infrastructure (building home routers) to front and backend web development. I'm also a director/lead developer for an early stage start-up that is developing software for high-rise residential communities. My doctorate investigated the utility of ad-hoc, short-range (Bluetooth) networks for large-scale data collection. My most recent work has centred on data capture (user network and location data) and visualisation. | | |

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| **Recent projects** | | **IoT Databox**EPSRC Funded | | | 2015-present |
|  | | Role: Researcher  This project is developing a clean-slate privacy-focused infrastructure to provide users with full control of their personal data. It is principally focused on IoT data; the number of devices that capture and record information about us is expected to rise to unprecedented levels, creating challenges around privacy and data liability. The project is a collaboration with ***Cambridge University*, *Queen Mary, University of London* and various industrial partners.** | | | |
|  | | **User Centric Networking**European Union Funded | | | 2014-present |
|  | | Role: Researcher  This project is a multi-institution collaboration (***Technicolor, Eurecom, Fraunhofer, Intamac, University of Cambridge, University of Nottingham, Martel Consulting, Inria, Portugal Telecom***) that is developing content and recommendation systems based upon user networking behaviour. In collaboration with ethnographers, I have built data visualisation tools (d3.js) that support detailed analysis and tagging of network data being collected in households across France and the UK. | | | |
|  | | **Communities in the Clouds**Research Councils UK Funded | | | 2014 |
|  | | Role: Principal Investigator  I ran a pilot project in collaboration with ***Microsoft Research*** that investigated the role that technology might play in supporting residents living in high-rise and high-density communities. The project was composed of several strands: data analysis and visualisation (of forum data), ethnography and a workshop with industry professionals. One exciting outcome from the project has been the chance to run technology trials in a large flagship East London housing estate. | | | |
|  | | **Becoming Dataware**Horizon Digital Economy Funded | | | 2012-2014 |
|  | | Role: Researcher  This project investigated how users might take greater control and ownership of their 'digital footprint' by considering a locally controlled hosted and managed personal data store that permits constrained queries by third parties (energy companies/supermarkets etc). I developed and extended code (python) to create a proof-of-concept home router that collected energy and network data which could be interrogated by (OAuth) permitted third parties. The software ran on a small form factor, Linux arm computer (dreamplug). | | | |
|  | | **Homework** EPSRC Funded | | | 2009-2012 |
|  | | Role: Researcher  A four-year, five-institution (***Nottingham, Imperial, Glasgow, Nottingham, Microsoft and BT***) collaboration looking at the design and provision of tools to improve support for home networking. I was part of a team that built a Linux router (running [Nox](http://www.noxrepo.org/)/[Open vSwitch](http://openvswitch.org/)) and developed two iphone/ipad apps that supported novel visualisation and control of a local home network. | | | |
| **Employment** | | **University of Nottingham** Horizon Digital Economy  Research Fellow | | | 2013-current |
|  | | **Queen Mary, University of London** Open & Distance Learning  Research Fellow | | | 2002-2005 |
|  | | **University College London** Networks and Multimedia Research  Research Fellow | | | 2000-2002 |
| **Education** | | **University of Nottingham** Phd  Opportunistic Data Collection in People Centric Sensor Networks | | | 2007-2012 |
|  | | **University College London** MSc  Data Communications Networks and Distributed Systems  Award: **Distinction** | | | 1999-2000 |
|  | | **Queen Mary, University of London** BSc  Computer Science  Award: **First Class**, Drapers Award for *‘outstanding academic achievement’* | | | 1996-1999 |
| **Key Tech Skills** | **Frontend**  React  Redux/Flux  Knockout  D3  iOs (Objective-C)  Android (Java)  SASS LESS  Webpack Grunt Gulp  HTML CSS | | **Backend**  Node.js  Flask/Bottle (Python)  Jekyll  Javascript  Java  Python  Objective-C  PHP  Drupal | **Devops**  Amazon EC2  Heroku  Docker  Vagrant  Apache  Nginx  Varnish  Haproxy  Squid  Mysql  Postgresql  SQLite  MongoDB  Neo4j | | |
|  | **see:** http://github.com/tlodge | | | | | |
| **Publications** | Crabtree, A., Rodden, T., Tolmie, P., Mortier, R., Lodge, T., Brundell, P. and Pantidi, N., 2015. **House rules: the collaborative nature of policy in domestic networks.***Personal and Ubiquitous Computing, 19(1),* pp.203-215. | | | | | |
|  | Lodge, T., Rodden, T. and Mortier, R., 2013, September. **Communities in the clouds: support for high-rise living.** *In Proceedings of the 2013 ACM conference on Pervasive and ubiquitous computing adjunct publication*(pp. 829-836). ACM. | | | | | |
|  | Mortier, R., Houghton, R., Skatova, A., Wagner, C., Lodge, T., Shao, J., Goulding, J., Madhavapeddy, A. and Crowcroft, J., **Becoming Dataware.** | | | | | |
|  | Skatova, A., Johal, J., Houghton, R., Mortier, R., Bhandari, N., Lodge, T., Wagner, C., Goulding, J., Crowcroft, J. and Madhavapeddy, A., 2013. **Perceived risks of personal data sharing.** *Proc. Digital Economy: Open Digital* (Nov. 2013). | | | | | |
|  | Lodge, T., 2012. **Opportunistic data collection in people-centric sensor networks.**(Doctoral dissertation, University of Nottingham). | | | | | |
|  | Mortier, R., Rodden, T., Tolmie, P., Lodge, T., Spencer, R., Sventek, J. and Koliousis, A., 2012, October. **Homework: Putting interaction into the infrastructure.***In Proceedings of the 25th annual ACM symposium on User interface software and technology* (pp. 197-206). ACM. | | | | | |
|  | Pediaditakis, D., Gopalan, A., Dulay, N., Sloman, M. and Lodge, T., 2012, July. **Home network management policies: Putting the user in the loop. In Policies for Distributed Systems and Networks**(POLICY), *2012 IEEE International Symposium*on (pp. 9-16). IEEE. | | | | | |
|  | Mortier, R., Rodden, T., Lodge, T., McAuley, D., Rotsos, C., Moore, A.W., Koliousis, A. and Sventek, J., 2012, January. **Control and understanding: Owning your home network.** *In Communication Systems and Networks (COMSNETS), 2012 Fourth International Conference* on (pp. 1-10). IEEE. | | | | | |
|  | Mortier, R., Bedwell, B., Glover, K., Lodge, T., Rodden, T., Rotsos, C., Moore, A.W., Koliousis, A. and Sventek, J., 2011, August. **Supporting novel home network management interfaces with OpenFlow and NOX.***In ACM SIGCOMM Computer Communication Review* (Vol. 41, No. 4, pp. 464-465). ACM. | | | | | |
|  | Sventek, J., Koliousis, A., Sharma, O., Dulay, N., Pediaditakis, D., Sloman, M., Rodden, T., Lodge, T., Bedwell, B., Glover, K. and Mortier, R., 2011, May. **An information plane architecture supporting home network management.***In Integrated Network Management (IM), 2011 IFIP/IEEE International Symposium* on (pp. 1-8). IEEE. | | | | | |
|  | Flintham, M., Greenhalgh, C., Lodge, T., Chamberlain, A., Paxton, M., Jacobs, R., Watkins, M. and Shackford, R., 2011, November. **A case study of exploding places, a mobile location-based game.** *In Proceedings of the 8th International Conference on Advances in Computer Entertainment Technology*(p. 30). ACM. | | | | | |
|  | Lodge, T. and Radenkovic, M., 2007, March. **Towards mass scale environmental monitoring by the public.***In Proceedings of the Third IASTED European Conference on Internet and Multimedia Systems and Applications (pp. 69-74).* ACTA Press. | | | | | |
|  | Flintham, M., Greenhalgh, C., Greenman, A., Lodge, T., Mortier, R., Jacobs, R., Watkins, M. and Shackford, R., **Towards a Platform for Urban Games.** | | | | | |
|  | Radenkovic, M. and Lodge, T., 2006. **Engaging the public through mass-scale multimedia networks.***IEEE MultiMedia*, (3), pp.12-15. | | | | | |