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Degrees:

University of North Carolina – Chapel Hill , B.Sc. (Mathematical Sciences, Minor in Cognitive Science), June 2001. With Honors and Highest Distinction. Thesis: “Models of Topic Segmentation: Computational, Cognitive, and Behavioral.” Advisor: Peter C. Gordon. Psychology, University of North Carolina at Chapel Hill.

University of Edinburgh, Msc. (Informatics), July 2003. With Honors. Major Specialism: Learning from Data. Thesis: “The Plots of Children and Machines: Statistical and Symbolic Analysis of Narrative Texts.” Advisor: Johanna Moore. Informatics, University of Edinburgh. (Best MSc. Prize)

University of Edinburgh, Ph.D. (Informatics), July 2011. Thesis: Sense and Reference on the Web. Advisor: Andy Clark, Philosophy, and Henry S. Thompson, Informatics, University of Edinburgh (Microsoft Research “Beyond Search” Prize)

Postdoctoral Advisor: Bernard Stiegler, Centre Pompidou

Professional Appointments:

Visiting Researcher and Project Co-ordinator, Inria. European Commission NEXTLEAP Project. 2016-present

Research Scientist, Sociotechnical Research Systems Center (Supervisor: Alex “Sandy” Pentland). 2016-present

W3C Team Member, MIT, CSAIL (Supervisor: Tim Berners-Lee), W3C Technology and Society Domain, 2013 -2016

Marie Curie Postdoctoral Scholar (Supervisor: Bernard Stiegler), l'Institut de recherche et d'innovation du Centre Pompidou, 2011-2013

Search Engine Developer (Supervisor: Peter Mika), Yahoo! Research, Barcelona 2011

Project Manager, Information Science and Information Studies (Supervisor: Cathy Davidson and Tim Lenoir), Duke University, 2005-2006

Books

1) Harry Halpin and Alexandre Monnin, editors (2014) **Philosophical Engineering: Toward a Philosophy of the Web**. Wiley-Blackwell. ISBN: 978-1-118-70018-1, pp. 1-216.

2) Harry Halpin (2013) **Social Semantics: The Search for Meaning on the Web**. Springer, ISBN 978-1-4614-1884-9, pp. 1-222

Papers in Refereed Journals

1) Harry Halpin (2017, forthcoming) **No Safe Haven: The Storage of Data Secrets**. *Journal of Intellectual Property, Information Technology and E-Commerce Law*.

2) Carmela Troncoso, George Danezis, Marios Isaakidis, Harry Halpin (2017 forthcoming) **Systematizing Decentralization and Privacy: Lessons from 15 years of research and deployments**. *Proceedings on Privacy Enhancing Technologies*.

3) Harry Halpin and Alexandre Monnin (2016) **The decentralization of knowledge: How Carnap and Heidegger influenced the Web**. *First Monday* 21(12).

4) Harry Halpin (2014) **Ingénierie philosophique. Vers une philosophie du Web**. *Intellectica* 61: 41-57.

- 5) Dirk Bollen and Harry Halpin (2013) **An experimental analysis of suggestions in collaborative tagging.** *Web Intelligence and Agent Systems* 11(1): 41-53
- 6) Harry Halpin (2013) **Immaterial Civil War: The World Wide War on the Web.** *Culture Machine*.14.
- 7) Harry Halpin and Fiona McNeill (2013) **Discovering meaning on the go in large heterogeneous data.** *Artificial Intelligence Review* 40(2): 107-126.
- 8) Roi Blanco, Harry Halpin, Daniel M. Herzig, Peter Mika, Jeffrey Pound, Henry S. Thompson, Thanh Tran (2013). **Repeatable and reliable semantic search evaluation.** *Journal of Web Semantics* 21: 14-29.
- 9) Harry Halpin (2013) **The Philosophy of Anonymous: Ontological Politics without Identity.** *Radical Philosophy* 176:19-28.
- 10) Alexandre Monnin and Harry Halpin (2012) **Toward a Philosophy of The Web: Foundations and Open Problems** *Metaphilosophy* 43 (4): 361–379.
- 11) Hugh Glaser and Harry Halpin. (2012) **The Linked Data Strategy for Global Identity.** *IEEE Internet Computing* 16(2): 68-71.
- 12) Harry Halpin and Valentina Presutti. (2011) **The identity of resources on the Web: An ontology for Web architecture.** *Applied Ontology* 6(3): 263-293.
- 13) Harry Halpin (2011) **Sense and Reference on the Web.** *Minds and Machines* 21(2): 153-178.
- 14) Harry Halpin and Victor Lavrenko (2011) **Relevance feedback between hypertext and Semantic Web search: Frameworks and evaluation.** *Journal of Web Semantics* 9(4): 474-489.
- 15) Harry Halpin and Henry S. Thompson (2009) **Social Meaning on the Web: From Wittgenstein to Search Engines.** *IEEE Intelligent Systems* 24(6): 27-31 (2009)

16) Valentin Robu, Harry Halpin, Hana Shepherd (2009). **Emergence of consensus and shared vocabularies in collaborative tagging systems.** *ACM Transactions on the Web.* 3(4): 14:1-14:34.

17) Patrick J. Hayes and Harry Halpin (2008). **In Defense of Ambiguity.** *International Journal of Semantic Web and Information Systems* 4(2): 1-18.

Papers in Refereed Conferences

1) Harry Halpin (2017, forthcoming) **The Crisis of Standardizing DRM: The Case of Encrypted Media Extensions.** In Proceedings of the *International Conference on Security, Privacy, and Applied Cryptography Engineering.*

2) Harry Halpin (2017). **NEXTLEAP: Decentralizing Identity with Privacy for Secure Messaging.** In Proceedings of *International Conference on Availability, Reliability, and Security (ARES 2017)*: 92:1-92:10.

3) Denis A. Ulybyshev, Bharat K. Bhargava, Miguel Villarreal-Vasquez, Aala Oqab Alsalem, Donald Steiner, Leon Li, Jason Kobes, Harry Halpin, Rohit Ranchal: **Privacy-Preserving Data Dissemination in Untrusted Cloud.** In Proceedings of *IEEE CLOUD 2017*: 770-773.

4) Elijah Sparrow, Harry Halpin, Kali Kaneko, Ruben Pollan (2016) **LEAP: A Next-Generation Client VPN and Encrypted Email Provider.** In Proceedings of *Cryptography and Network Security (CANS 2016)*: 176-191.

5) Ksenia Ermoshina, Francesca Musiani, Harry Halpin (2016): **End-to-End Encrypted Messaging Protocols: An Overview.** *International Conference on Internet Science*: 244-254

6) Kelsey Cairns, Harry Halpin, Graham Steel (2016). **Security Analysis of the W3C Web Cryptography API.** Proceedings of the *Security Standardization Research Conference 2016*: 112-140

- 7) Harry Halpin, Patrick J. Hayes, Henry S. Thompson (2015) **When owl: sameAs isn't the Same Redux: Towards a Theory of Identity, Context, and Inference on the Semantic Web.** *Proceedings of International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT 2015)*: 47-60
- 8) Harry Halpin and Francesca Bria (2015) **Crowdmapping Digital Social Innovation with Linked Data.** In Proceedings of the *Extended Semantic Web Conference (ESWC 2015)*: 606-620
- 9) Harry Halpin and James Cheney (2014) **Dynamic Provenance for SPARQL Updates.** In Proceedings of the *International Semantic Web Conference (ISWC 2014)*: 425-440
- 10) Harry Halpin (2013) **Does the web extend the mind?** In Proceedings of *ACM Web Science Conference (Websci 2013)*: 139-147.
- 11) Harry Halpin and Blaine Cook (2012) **Federated Identity as Capabilities.** In Proceedings of *Annual European Privacy Forum (APF 2012)*: 125-139.
- 12) Harry Halpin and Victor Lavrenko (2011) **Relevance Feedback between Web Search and the Semantic Web.** In Proceedings of *International Joint Conference on Artificial Intelligence (IJCAI 2011)*: 2250-2255.
- 13) Roi Blanco, Harry Halpin, Daniel M. Herzig, Peter Mika, Jeffrey Pound, Henry S. Thompson, and Duc Thanh Tran (2011) **Repeatable and reliable search system evaluation using crowdsourcing.** In Proceedings of the *ACM SIGIR conference on research and development (SIGIR 2011)* : 923-932.
- 14) Harry Halpin, Patrick J. Hayes, James P. McCusker, Deborah L. McGuinness, Henry S. Thompson (2010) **When owl: sameAs Isn't the Same: An Analysis of Identity in Linked Data.** In Proceedings of the *International Semantic Web Conference (ISWC 2010)*: 305-320.
- 15) Harry Halpin, Andy Clark, Michael Wheeler (2010) **Towards a philosophy of the Web: Representation, Enaction, Collective Intelligence.** In *ACM Web Science Conference (WebSci 2010)*.

16) Harry Halpin (2008) **Foundations of a Philosophy of Collective Intelligence**. In Proceedings of the Symposium on Artificial Intelligence and the Simulation of Behaviour (AISB 2008): 12-19.

17) Harry Halpin, David J. Zielinski, Rachael Brady and Glenda Kelly (2008) **Exploring Semantic Social Networks Using Virtual Reality**. In Proceedings of the *International Semantic Web Conference (ISWC 2008)*: 599-614.

18) Harry Halpin, Valentin Robu, and Hana Shepard (2007) **The complex dynamics of collaborative tagging**. In Proceedings of the *World Wide Web Conference (WWW 2007)*: 211-220.

19) Harry Halpin and Johanna Moore (2006) **Event Extraction in a Plot Advice Agent**. In Proceedings of the *Association for Computational Linguistics (ACL 2006)*: 857-864.

20) Harry Halpin and Henry S. Thompson. (2006) **One Document to Bind Them: Combining XML, Web Services, and the Semantic Web**. In Proceedings of the *World Wide Web Conference (WWW 2006)*: 679-686.

21) Colin Fraser, Harry Halpin, Kavita Elisheba Thoma (2006) **Developing an Argumentation Ontology for Mailing Lists**. *Artificial Intelligence: Methodology, Systems, and Applications (AIMSA 2006)*: 150-161.

22) Harry Halpin, Johanna D. Moore and Judy Robertson (2004) **Automatic Analysis of Plot for Story Rewriting**. In Proceedings of *Empirical Methods in Natural Language Processing (EMNLP 2004)*: 127-133.

Papers in Refereed Workshops and Poster Sessions

1) Harry Halpin. **Semantic Insecurity**. *Society, Privacy and the Semantic Web - Policy and Technology (PrivOn 2017)* at ISWC 2017.

2) Harry Halpin and Marta Piekarska (2017) **Introduction to Security and Privacy on the Blockchain**. *IEEE EuroS&P Workshops 2017*: 1-3.

- 3) Peter Todd and Harry Halpin (2017) **OpenTimestamps: Securing Software Updates using the Bitcoin Blockchain** Poster Session. *Financial Cryptography and Data Security (FC 2017)*.
- 4) Ksenia Ermoshina, Harry Halpin, and Francesca Musiani (2017) **Can Johnny Build a Protocol? Co-ordinating developer and user intentions for privacy-enhanced secure messaging protocols.** *European Workshop on Usable Security (EuroUSEC 2017)*.
- 5) Marios Isaakidis, Harry Halpin, George Danezis (2016) **UnlimitID: Privacy-Preserving Federated Identity Management using Algebraic MACs.** Workshop on *Privacy in the Electronic Society (WPES 2016)* at CCS 2016: 139-142.
- 6) Harry Halpin and Andrea Capocci (2014) **The Berners-Lee Hypothesis: Power laws and group structure in Flickr.** *Theory and Practice of Social Machines Workshop at WWW (Companion Volume) 2014*: 885-890.
- 6) Harry Halpin (2014) **The W3C Web Cryptography API: Motivation and Overview.** *Workshop on Web APIs and RESTful Design at WWW (Companion Volume) 2014*: 959-964.
- 7) Harry Halpin and Roi Blanco (2012) **Machine-learning for Spammer Detection in Crowd-sourcing.** *Human Computation Workshop at AAI 2012*.
- 8) Harry Halpin (2012). **Web Authentication: The Next Step for the Evolving Identity Eco-System.** *Web 2.0 Privacy and Security Workshop at IEES&P 2012*.
- 9) Harry Halpin and Tom Baker (2011) **Vocabulary Hosting: A Modest Proposal.** In *Proceedings of AAI Spring Symposium: Linked Data Meets Artificial Intelligence 2010*,
- 10) Harry Halpin, Daniel M. Herzig, Peter Mika, Roi Blanco, Jeffrey Pound, Henry Thompon, Duc Thanh Tran (2010) **Evaluating ad-hoc object retrieval.** *International Workshop on Evaluation of Semantic Technologies at ISWC 2010*
- 11) Harry Halpin Patrick J. Hayes (2010). **When owl: sameAs isn't the Same: An Analysis of Identity Links on the Semantic Web.** *Linked Data on the Web Workshop (LDOW 2010)* at WWW 2010.

12) Harry Halpin (2009) **Is there anything worth finding on the Semantic Web?** Poster Session. *World Wide Web Conference (WWW 2009)*.

13) Dirk Bollen, Harry Halpin (2009) **The role of tag suggestions in folksonomies.** Poster Session. *Hypertext*: 359-360

14) Harry Halpin (2009) **A Query-Driven Characterization of Linked Data.** *Linked Data on the Web Workshop (LDOW 2009)* at WWW 2009.

15) Harry Halpin, David J. Zielinski, Rachael Brady, Glenda Kelly (2008) **Redgraph: Navigating Semantic Web Networks using Virtual Reality.** Poster Session. *Virtual Reality (VR 2008)*: 257-258

16) Harry Halpin (2006) **Automatic Evaluation and Composition of NLP Pipelines with Web Services.** Poster Session. Proceedings of *International Conference on Language Resources and Evaluation (LREC 2006)*: 2470-2473.

17) Harry Halpin, Johanna D. Moore, Judy Robertson (2004) **Towards automated story analysis using participatory design.** *ACM Workshop on Story Representation, Mechanism and Context (SRMC 2004)*: 75-83

Invited Book Chapters

1) Harry Halpin (2017, forthcoming) **Whose Afraid of the Dark Web?** *New Solutions for Cybersecurity*. Editors: Howard Schrobe, David Schrier, and Alex Pentland. MIT Press.

2) Harry Halpin (2017, forthcoming). **Solving the Frame Problem Socially.** *Socially Extended Epistemology*. Editor: Orestis Palermos. Oxford University Press.

3) Harry Halpin (2014). **The National Security Exemption in Data Protection.** *Computers, Privacy and Data Protection - Reforming data protection : the global perspective* Editor: Serge Gutwirth. Springer.

- 4) Harry Halpin (2014) **The Necessity of Standards for the Open Social Web.** *From Bitcoin to Burning Man and Beyond: The Quest for Identity and Autonomy in a Digital Society.* Editor: John Clippinger and David Bollier. Off the Commons Books.
- 5) Yuk Hui and Harry Halpin (2013) **Collective Individuation: The Future of the Social Web.** *The Unlike Us Reader.* Editor: Geert Lovink. Institute of Network Cultures: 223-238
- 6) Harry Halpin (2013) **Becoming Digital: Reconciling Theories of Digital Representation and Embodiment.** *Philosophy and Theory of Artificial Intelligence.* Editor: Vincent C. Mueller. Springer: 199-213.
- 7) Tim Berners-Lee and Harry Halpin (2012) **Defend the Web.** *Digital Enlightenment Yearbook.* IOS Press: 1-2.
- 8) Harry Halpin: **The Semantic Web: The Origins of Artificial Intelligence Redux.** *Semantic Web: Concepts and Applications.* Editor: Ravi Kumar Jain. ICFAI Press: 12-32.

Awards and Grants

- 1) NEXTLEAP EC Research Project (2016-present): 2 million euros, co-ordinated by Inria
- 2) Cybersecurity Research Consortium Grant (2016-present): 350K to MIT Sociotechnical Systems Research Center
- 3) Information Influx Best Paper Award (2014).
- 4) DCENT European Commission Research Project (2013-2015): 300K euros to W3C/MIT.
- 5) Digital Social Innovation European Commission Study (2012-2013). 100K to IRI du Centre Pompidou,
- 6) European Commission Marie Curie Fellowship (2011-2013): 200K to IRI du Centre Pompidou, fully-funded postdoctoral research grant.

- 7) Alain Bessouin Fellowship (2011): European Research Center for Informatics and Mathematics in recognition of impact of Ph.D. Thesis.
- 8) Oxford Internet Institute Web Science Summer Program (2008)
- 9) “Beyond Search” Microsoft Research Grant (2008): 80K to University of Edinburgh
- 10) Santa Fe Institute Complex Systems Summer School (2006)
- 11) Overseas Research Scheme (ORS) Scholarship. (2006-2011): Fully-funded Ph.D. Scholarship
- 12) Best MSc. Thesis Prize. (2003) School of Informatics University of Edinburgh.