

## **CURRICULUM VITAE**

December 19, 2017

### I. PERSONAL INFORMATION

Name Fredrik Svahn

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Swedish Nationality

Date of birth Feb 23, 1972

> Gender Male

II. DEGREES

PhD Informatics, Umeå University, Umeå, Sweden 2012

1996 MSc Applied Physics and Electrical Engineering, Linköping

Institute of Technology, Linköping, Sweden

III. POSITIONS	
Dec 2017-	University of Gothenburg, Gothenburg, Sweden.
	Associate Professor
2016-	Sangigi AB, Frillesås, Sweden.
	• Owner
2014-2017	<ul><li><i>University of Gothenburg</i>, Gothenburg, Sweden.</li><li>Assistant Professor</li></ul>
2014	<ul> <li>Penn State University, PA, USA.</li> <li>Visiting Researcher, College of Information Sciences and Technology (Apr-June).</li> </ul>
2012-2014	<ul> <li>Chalmers University of Technology, Gothenburg.</li> <li>Postdoctoral Research Associate (Oct 2012-Sep 2014).</li> </ul>
2007-2014	<ul> <li>Viktoria Swedish ICT (form. Viktoria Institute), Gothenburg</li> <li>Senior Researcher (2012-).</li> <li>Research Manager, Open Vehicle (2011-2012).</li> <li>Researcher (2007-2011).</li> </ul>
2011-2012	<ul><li>Umeå University, Umeå.</li><li>PhD Candidate.</li></ul>
2010	<ul> <li>Georgia State University, Atlanta, GA, USA</li> <li>Visiting Researcher, Center for Process Innovation (Sep-Oct).</li> </ul>
2009-2011	<ul><li>Jönköping International Business School, Jönköping.</li><li>PhD Candidate.</li></ul>
2006	<ul><li>Evidente AB, Gothenburg.</li><li>Telematics Consultant.</li></ul>
2000-2006	<ul> <li>Guide Konsult AB, Gothenburg.</li> <li>IT Consultant, Volvo Car Corporation (2001-2005).</li> <li>IT Consultant, Ericsson Microwave Systems (2001).</li> <li>IT Consultant, Mitsubishi Electric (2000-2001).</li> </ul>
1997-2000	<ul> <li>Saab Dynamics AB, Linköping.</li> <li>Systems Engineer, section for operational analysis (1999-2000).</li> <li>Systems Engineer, section for airborne navigation systems (1997-1999).</li> </ul>
IV. RESEARCH PROJECTS	
2018	<i>Mapping Ecosystems for Digital Capability,</i> a project with the forest industry. The project will map, describe, and visualize innovation ecosystems and subsequently develop feasible strategies for exploiting them in platform business models.
2017-2021	Supply-Side Strategies for Dealing with Digital Disruption: Methods and Tools for Digital Resourcing, a project funded by the Wallenberg Foundation, addressing disruption through informed management of digital resources – digital resourcing.

2013-2016	Safe Interaction, Connectivity and State (SICS), a research project with the objective to design, develop, and evaluate a connectivity platform which balances fundamental safety concerns towards business prosperity. Volvo AB, Volvo Car Corporation, HiQ, and Chalmers.
2013	<b>Second Road</b> , a project aiming for collaborative work practices in modeling and simulation. In particular, it explored how the concept of peer-production can be applied to an automotive context. Volvo Car Corporation and Viktoria Swedish ICT.
2011-2012	<b>Planning for a Connected Future</b> , an action research project on strategic planning of connected cars. The project applied scenario planning methodology to identify future developments and trigger new strategic thinking. Volvo Car Corporation and Viktoria Insitute.
2010-2012	<i>Open Design Infrastructures</i> , a collaborative research project aiming to develop new platform concepts and harmonizing governance strategies, helping the automotive industry to develop an open innovation agenda in the area of vehicle infotainment. Volvo Car Corporation, HiQ, and Viktoria Institute.
2011	API Federation, a project exploring the concept of federation as a basis for increasingly heterogeneous innovation ecosystems, gravitating around shared information rather than a shared platform. Lindholmen Science Park, Saab Automobile, CyberCom, and Viktoria Institute.
2009-2010	<i>Open Source Business Models</i> , a research project seeking to develop a new technology management strategy, recognizing the new challenges of open innovation. In particular, it centered on (1) the identification and appropriation of principles for external developer communities and (2) an updated infotainment platform strategy. Saab Automobile, Mecel, Viktoria Institute.
2008-2009	<b>Flex HMI Architecture</b> , a project focusing on the development of in-car software architecture, handling the trends of centralization, differentiation, and scalability in a concerted way. Saab Automobile and Viktoria Institute.
2007	Open Platform for Nomadic Devices, an industry-wide research project aiming to develop a strategy and open hardware-software architecture for handling all sort of peripheral devices that increasingly pervade people's lives. Saab Automobile, Volvo Technology, Scania, Appello, CyberCom, Sony Ericsson, and Viktoria Institute.

# V. INDUSTRIAL ASSIGNMENTS

2016 Support in development of digital business strategy. Hosting and moderation of workshops for mapping of business ecosystem. Sydved AB.

2006 Business and Process Review. Evidente.

2005	<b>Task leader, Connected Safety &amp; Service</b> . Advanced engineering project, reviewing technology, user value and business potential in the context of connected cars. Volvo Car Corporation.
2005	<b>Technical purchasing support, next generation common Infotainment head units in Premium Automotive Group.</b> RFI/RFQ design and quotation reviewing. Volvo Car Corporation.
2005	<b>Strategy development, in-car navigation.</b> Preparation of generic, long term strategy for Volvo's Road & Traffic Information. Volvo Car Corporation.
2005	<b>Technical analyst, dead reckoning.</b> Performance analysis for Volvo on Call. Volvo Car Corporation.
2004	<i>Function area leader, in-car navigation</i> . Volvo Car Corporation.
2003	<b>Researcher</b> , navigation system usage. End-user survey of different driving contexts. A project implemented as joint study between Volvo Car Corporation, Viktoria Institute and Guide Konsult.
2003	<b>Test Engineer, GPS performance benchmarking</b> . Comparative study of two competing solutions, from two different suppliers. Volvo Car Corporation.
2003	<b>Software manager, Volvo Road and Traffic Information.</b> New product development for the S40/V50 cars. Volvo Car Corporation.
2002	<b>Software manager, multimedia module.</b> New product development for the XC90 car. Volvo Car Corporation.
2001	<b>Task leader, Volvo Road and Traffic information.</b> Facelift for the MY 2002 of S60, V70 and S80 cars. Volvo Car Corporation.
2001	<b>Team leader, UMTS hardware design</b> . Responsibility for downlink signal processing in 3rd generation mobile base stations for Japanese DoCoMo. Ericsson Microwave Systems.
2000	<i>Systems engineer, automotive navigation</i> . Systems analysis, specification and field testing. Mitsubishi Electric Automotive Europe.
2000	<b>Research assistant, bayesian target tracking.</b> A project studying nonlinear, model based signal processing in target tracking application using infrared sensors. Research project funded by the Swedish Defense Material Administration. Saab Dynamics, section for operational analysis.
1998-1999	<b>Technical sales support, naval tactics simulators</b> . Concept studies, system specification, quotations, customer negotiations, customer support. Saab Dynamics, section for operational analysis.
1997-1998	Systems engineer, terrain referenced navigation. Subsystem leader for JAS39 Gripen. Algorithm development, program implementation, testing and systems integration. Saab Dynamics, section for airborne navigation systems.

#### **VI. PUBLICATIONS**

2017 Svahn, F., Mathiassen, L., Lindgren, R., and Kane, G. 2017. "Mastering the Digital Innovation Challenge," MIT Sloan Management Review (58:3), pp. 14-16.

Svahn, F., Mathiassen, L., and Lindgren, R. 2017. "Embracing Digital Innovation in Incumbent Firms: How Volvo Cars Managed Competing Concerns," MIS Quarterly. (41:1), pp. 239-253.

Leijon, E., Svenheden, J., and Svahn, F. 2017. "Platform Thinking in Incumbent Firms: From Concept to Capability," HICSS-50, Hilton Waikoloa, Hawaii, USA.

2016 Mohagheghzadeh, A., Svahn, F. 2016 "Shifting Design Capability to Third-Party Developers: An Affordance Perspective on Platform Boundary Resources", AMCIS, San Diego, USA.

Mohagheghzadeh, A., Svahn, F. 2016 "Transforming Organizational Resources into Platform Boundary Resources", ECIS, Istanbul, Turkey.

Mohagheghzadeh, A., Svahn, F. 2015 "Resource Transformation in Platform Envelopment", ECIS, Münster, Germany.

Svahn, F., Lindgren, R., Mathiassen, L. 2015. "Applying Options Thinking to Shape Generativity in Digital Innovation: An Action Research into Connected Cars", *HICSS-48*, Grand Hyatt, Kauai, USA.

- Henfridsson, O., Mathiassen, L., Svahn, F. 2014. "Managing Technological Change in the Digital Age: The Role of Architectural Frames", *Journal of Information Technology* (29:1).
- Selander, L., Henfridsson, O., Svahn, F. 2013. "Capability Search and Redeem Across Digital Ecosystems," *Journal of Information Technology* (28:3).
- 2012 Svahn, F. 2012. "Digital Product Innovation: Building Generative Capability through Architectural Frames", PhD Thesis, Umeå University.

Svahn, F. and Henfridsson, O. 2012. "The Dual Regimes of Digital Innovation Management", *HICSS-45*, Grand Wailea, Maui, USA.

- 2010 Selander, L., Henfridsson, O., and Svahn, F. 2010.
  "Transforming Ecosystem Relationships in Digital
  Innovation," *Int. Conf. on Information Systems*, Saint Louis,
  USA.
- 2009 Svahn, F., Henfridsson, O., and Yoo, Y. 2009. "A Threesome Dance of Agency: Mangling the Sociomateriality of Technological Regimes in Digital Innovation," *Int. Conf. on Information Systems*, Phoenix, USA.

Svahn, F., and Henfridsson, O. 2009. "Situated Knowledge in Context-Aware Computing: A Sequential Multimethod Study of in-Car Navigation," *International Journal of Advanced* 

*Pervasive and Ubiquitous Computing* (1:3).

Svahn, F. 2009. "The Sociomateriality of Competing Technological Regimes in Digital Innovation," in: *Selected Papers of the 32nd Iris Seminar*, J. Molka-Danielsen (ed.). Tapir Academic Press, Trondheim, Norway.

Svahn, F. 2009. "The Sociomateriality of Competing Technological Regimes in Digital Innovation," in: *Proceedings of the 32nd Information Systems Research Seminar in Scandinavia*. Molde, Norway.

Henfridsson, O., Yoo, Y., and Svahn, F. 2009. "Path Creation in Digital Innovation: A Multi-Layered Dialectics Perspective," *Sprouts Working Papers on Informations Systems* (9:20).

Henfridsson, O., Mathiassen, L., and Svahn, F. 2009. "Reconfiguring Modularity: Closing Capability Gaps in Digital Innovation," *Sprouts Working Papers on Informations Systems* (9:22).

- 2004 Svahn, F. 2004. "In-Car Navigation Usage: An End-User Survey on Existing Systems," in: *Proceedings of the 27th Information Systems Research Seminar in Scandinavia*. Falkenberg, Sweden.
- Henfridsson, O., Holmström, H., Lindgren, R., Olsson, C.M., and Svahn, F. 2003. "Framtidens Fordon Mötet Mellan Två Mobila Världar," The Swedish Agency for Innovation Systems.
- 1996 Svahn, F. 1996. "Tools and Methods to Obtain a Passive Autofocus System," Master Thesis. *Department of Electrical Engineering*, Linköping University, Sweden.

#### **VII.TEACHING**

Program Management:

Program Director, Master's program in Digital Leadership.

Program Development:

Master's program in Digital Leadership (with K. Pessi and D. Koutsikouri)

Course development:

TIA010 <u>Innovation Strategy for the Digital Economy</u>: Organizations, Markets, and Technologies.

TIA019 Master Thesis in Informatics (revised with D. Koutsikouri)

TIA043 Innovation and Entrepreneurship (with J. Ljungberg).

Courses taught:

TIA010 Innovation Strategy for the Digital Economy: Organizations, Markets, and Technologies, University of Gothenburg, 2014, 2015, and 2016.

TIA043 Innovation and Entrepreneurship, Chalmers and University of Gothenburg, fall 2013.

JSID27 Societal and Industrial Evolution in the Connected (IT) Economy, Jönköping International Business School, lecturing on digital innovation, spring 2010.

Commissioned education:

Platform Strategies and Digital Innovation, Executive MBA, GU School of Executive Education AB, May 2017.

Digital Leadership, Chalmers Professional Education, Aug 2016.

Peer-production, Volvo Car Corporation, Sep 2013.

Two-sided Markets and Network Effects, Volvo Car Corporation, Sep 2011.

Platforms, Volvo Car Corporation, Sep 2011.

Open Innovation, Volvo Car Corporation, Aug 2011.

Product Differentiation (with L. Hylving), Saab Automobile, April 2008.

Open Innovation, Saab Automobile, April 2008.

Pedagogical courses taken:

HPE101 Teaching and Learning in Higher Education, 5 hec.

#### VIII. SERVICES

Reviewing for Scholarly Journals:

MIS Quarterly (MISQ)

Information Systems Research (ISR)

Journal of Information Technology (JIT)

European Journal of Information Systems (EJIS)

IEEE Transactions on Systems, Man & Cybernetics (IEEE SMC)

Reviewing for International Conferences:

International Conference on Information Systems (ICIS)

European Conference on Information Systems (ECIS)

Hawaii International Conference on System Sciences (HICSS)

Mediterranean Conference on Information Systems (MCIS)

Information Systems Research in Scandinavia (IRIS)

International Federation for Information Processing, Working Group 8.2 (IFIP 8.2)

IEEE Vehicular Technology Society Conference (IEEE VTC)

Roles in International Conferences:

Session Chair, Design Science in Action, ICIS 2012.

Program Committee, IFIP Working Group 8.2 Working Conference, Auckland, 2014.

#### Editorial Work:

Associate Editor, European Conference on Information Systems (ECIS), 2015 and 2016.

## Opponent Assignments:

Esbjörn Ebbesson, "The Role of Social Software in Co-Creation of Value", Mid-seminar, Halmstad University, Nov 2013.

Asma Rafiq, "Boundary Resources Theory from Third Party Developers' Perspective", Mid-seminar, Uppsala University, Oct 2015.

Asif Akram, "Value Network Transformation: Digital Service Innovation in the Vehicle Industry", PhD Trial Defense, Halmstad University, Nov 2015.

## IX. HONORS AND AWARDS

- Diploma for outstanding doctoral thesis in information systems 2012. Svenska Informationssystem Akademin (SISA), 2012
- 2. Best theme paper award (with L. Selander and O. Henfridsson) at the International Conference on Information Systems (ICIS), 2010
- 3. Best paper award at Information Systems Research in Scandinavia (IRIS), 2009

### X. FUNDRAISING

- 1. Mapping Ecosystems for Digital Capability, Stiftelsen Seydlitz MP bolagen, 1000 kSEK.
- 2. Supply-Side Strategies for Dealing with Digital Disruption Methods and Tools for Digital Resourcing, Marianne och Marcus Wallenbergs stiftelse, 4210 kSEK.
- 3. Safe Interaction, Connectivity and State (SICS) (with O. Henfridsson), VINNOVA's program for Strategic Vehicle Research and Innovation (FFI), 2400 kSEK.
- 4. Environmental Friendly Efficient Enjoyable and Safety Optimized Systems (EFESOS) (with L. Hylving), VINNOVA's program for Strategic Vehicle Research and Innovation (FFI), 3400 kSEK.
- 5. API Federation (with L. Selander), InMotion (Västra Götalandsregionen), 650 kSEK.
- 6. PreACT (with C. Grante), SAFER (Chalmers) 100 kSEK.
- 7. Open Source Business Models, Technical Concept (with O. Henfridsson), General Motors, 1200 kSEK
- 8. Open Source Business Models (with O. Henfridsson), Saab Automobile, 475 kSEK.
- 9. Flexible HMI Architecture (with O. Henfridsson and L. Hylving) VINNOVA's Vehicle ICT program, 3750 kSEK.

10. Open Platform for Nomadic Devices (with O. Henfridsson). VINNOVA's Vehicle ICT program, 1200 kSEK.

### XI. PRESENTATIONS

## Selected presentations from public conferences and industry collaboration arenas:

- 1. *Digital Competence*. At Business Region Gothenburg, Apr 2017.
- 2. *Platforms and Digitalization.* At Sydved, Aug 2016.
- 3. *Embracing Digital Innovation in Incumbent Firms.* At Umeå University, May 2016.
- 4. Embracing Digital Innovation in Incumbent Firms. At MITSC, Mar 2016.
- 5. *Embracing Digital Innovation: How Volvo Cars Maneuvered Competing Concerns.* At Halmstad University, Jan 2016.
- 6. Embracing Digital Innovation: Strategy Practices in Volvo's Connected Car Initiative. At MIS Quarterly special issue workshop, Los Angeles, Feb 2015.
- 7. *Embracing the Digital.* At Setterwalls Advokatbyrå, Feb 2015.
- 8. Applying Options Thinking to Shape Generativity in Digital Innovation: An Action Research into Connected Cars. At Hawaii International Conference on System Sciences (HICSS), Jan 2015.
- 9. *Growing Hybrid Platforms: The Complexities of Design and Governance.* At the Center for Research Design and Innovation, Penn State University, June 2014.
- 10. *Digital Product Innovation*. Presentation of PhD Thesis at the annual SISA conference, May 2013.
- 11. *Open Innovation: What is it? Do we need it?* How do we apply it? At Viktoria Forum, Dec 2012.
- 12. *How do we Architect for Open Innovation?* At Framtidens Uppkopplade Fordon (Informa IBC), Oct 2012.
- 13. | *Platform Economics.* At Vehicle ICT Forum, June 2012.
- 14. *Open Innovation Architecture.* At Vehicle ICT Forum, May 2012.
- 15. The Dual Regimes of Digital Innovation Management. At Hawaii International Conference on System Sciences (HICSS), Jan 2012.
- 16. *Planning for a Connected Future.* At Volvo Car Corporation, December 2011.
- 17. *Three Challenges in Digital Product Innovation.* At Framtidens Uppkopplade Fordon (Informa IBC), April 2011.
- 18. *Transforming Ecosystem Relationships in Digital Innovation.* At the International Conference on Information Systems (ICIS), December 2010.

- 19. *Open Design Infrastructures in Digital Product Innovation.* Keynote at SmartVision 2010, Kajaani, Finland.
- 20. A Threesome Dance of Agency: Mangling the Sociomateriality of Technological Regimes in Digital Innovation. At the International Conference on Information Systems (ICIS), December 2009.
- 21. *The Sociomateriality of Competing Technological Regimes in Digital Innovation.* At Information Systems Research in Scandinavia (IRIS), Aug 2009.
- 22. *Openness: Curse or Blessing?* At GREAT seminar, May 2008.
- 23. Infotainment i fordon: En pågående resa från autonomi till integration. At Framtidens Uppkopplade Fordon (Informa IBC), April 2006.

## **XII. STUDENT SUPERVISION**

Amir Mohagheghzadeh, Ph.D. (Informatics, Gothenburg University), anticipated 2018.