

# SUNE DUEHOLM MÜLLER

Associate Professor

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## ACADEMIC EXPERIENCE

### SCIENTIFIC FOCUS AREAS:

- ★ Digital innovation
- ★ Process innovation
- ★ Business process management

### PROJECT MANAGEMENT:

- ★ Managing the project (2016-Present)  
**“Digital innovation of Danish Healthcare”**  
in collaboration with Regionshospitalet Randers  
(for more information, please contact innovation consultant Marie Louise Ladefoged: <http://www.regionshospitalet-randers.dk/afdelinger/administration/innovation>).
- ★ Managing the project (2014-Present)  
**“Google Glass in Agriculture”**  
together with SEGES and Business Academy Aarhus.  
(<http://mgmt.au.dk/research/innovation-entrepreneurship-and-information-systems/research/information-systems-research-group/google-glass-in-agriculture>)
- ★ Participation in the **DISIMIT Research Project** at Aalborg University (2010-2012).

### CONFERENCES:

- ★ **Chair for the “IT Innovation” working group** at the 38th Information Systems Research Seminar in Scandinavia (IRIS38), August 9-12 2015, Oulu, Finland.
- ★ **Served as Associate Editor** for ICIS 2013, the Business Process Management track.
- ★ **Conference presentation at HICSS 48:**  
The 48th Annual Hawaii International Conference on System Sciences (HICSS), January 5th – 8th 2015, Kauai, Hawaii.
- ★ **Conference presentation at HICSS 47:**  
The 47th Annual Hawaii International Conference on System Sciences (HICSS), January 6th – 9th 2014, Big Island, Hawaii.
- ★ **Presentation at the 2011 pre-ICIS SIG eGovernment workshop**, The 2011 International Conference on Information Systems (ICIS 2011), December 4th – 7th 2011, Shanghai, China.
- ★ **Conference presentation at ECIS2008:**  
The 16th European Conference on Information Systems (ECIS2008), June 9th – 11th 2008, Galway, Ireland.
- ★ **Conference presentation at ISD2007:**  
The 16th International Conference on Information Systems Development, August 29th – 31st 2007, Galway, Ireland.
- ★ **Participation in Symposium on Software Process & Knowledge**, Aalborg, 28th – 29th January 2006.

## EDUCATION

- 2009 • **Ph.D. in Information Systems Research**  
Aarhus School of Business  
*University of Aarhus, Denmark*
- 2003 • **MSc in Information Technology**  
Aarhus School of Business  
*University of Aarhus, Denmark*
- 2001 • **BSc in Political Science**  
Aarhus School of Business  
*University of Aarhus, Denmark*

## EMPLOYMENT

- 2014-Present • **Associate Professor**  
Department of Management  
*University of Aarhus, Denmark*
- 2013-2014 • **Associate Professor**  
Department of Business Administration  
*University of Aarhus, Denmark*
- 2010-2013 • **Assistant Professor**  
Center for IS Management  
*Aalborg University, Denmark*
- 2010 • **Manager**  
Integrated Defense Systems  
*Terma, Denmark*
- 2008-2010 • **Manager**  
Process Improvement  
*Terma, Denmark*
- 2007-2008 • **Business Process Engineer**  
*Terma, Denmark*
- 2004-2009 • **Industrial PhD Student**  
*Terma, Denmark*
- 2003-2004 • **Research Assistant, Informatics**  
Aarhus School of Business  
*University of Aarhus, Denmark*
- 2002-2003 • **Teaching Assistant, Informatics**  
Aarhus School of Business  
*University of Aarhus, Denmark*
- 2001-2003 • **Customer Service Representative**  
*TDC, Denmark*

## REVIEWS:

SERVED AS REVIEWER FOR THE FOLLOWING CONFERENCES AND JOURNALS:

- ✳ European Journal of Information Systems
- ✳ Journal of Systems and Software
- ✳ Wirtschaftsinformatik
- ✳ International Journal of Production Economics
- ✳ International Conference on Information Systems (ICIS)
- ✳ European Conference on Information Systems (ECIS)
- ✳ International Conference on Software Engineering (ICSE)

## COMMITTEES:

- ✳ **Chairman of PhD committee;** Lars Haahr's PhD thesis (February 2016): Social Media as Organizing Vision? An Interpretive Field Study of How Formal Organizations Respond to Social Media.
- ✳ **Member of assessment committee** evaluating applications for the position (# 776977) of external lecturer ("ekstern lektor") at Department of Management, Aarhus University 2015.
- ✳ **Member of assessment committee** evaluating applications for the position (# 750411) of Assistant Professor at Department of Management, Aarhus University 2015.
- ✳ Participation in "Udviklingsgruppen for identificering og udvikling af samfundsvidenskabelige IKT-kompetencer på Aalborg Universitet".

## TEACHING PORTFOLIO

### MASTER OF SCIENCE (MSc) COURSES:

- ✳ **Lecturer in "IS Strategy and Management" (2013-16),** MSc in Economics and Business Administration - Information Management.
- ✳ **Lecturer in "Informationssystemers rolle i organisationer" (2010-14),** MSc in IT (Danish: "cand.it. i It-ledelse"), Aalborg University.
- ✳ **Lecturer in "It-baseret forbedring af organisatoriske processer" (2011-2014),** MSc in IT (Danish: "cand.it. i It-ledelse"), Aalborg University.
- ✳ **Lecturer in "Business Process Management and Innovation" (2015-17),** Master of IT (for ICT professionals), It-vest.
- ✳ **Guest lecturer in "It-forretningsmuligheder og tilbudsproces" (2010-2013), "IT-lederen" (2011),** and "IT-organisationen" (2011-12), Master of IT (for ICT professionals), It-vest.
- ✳ **Co-examiner in "Informationsteknologi, programmering og databasesystemer" (2010),** MSc in IT (Danish: "cand.it. i It-ledelse"), Aalborg University.

### BACHELOR OF SCIENCE (BSc) COURSES:

- ✳ **Lecturer in "Organisering og Forretningsmodeller for IT-innovationer" (2013-16),** BSc in IT, Aarhus University.
- ✳ **Lecturer in "Brugerrettet IT-Innovation" (2013-15),** Bsc in Business Administration and Information Technology, Aarhus University.

## SUPERVISION:

- ✳ PhD students Kathrine Stampe (2016) and Maria Festila (2016).
- ✳ Research trainees (Danish: forskningspraktikanter) Hans Henrik Balshøj (2007), Morten Boldsen (2007), Ann Nørgaard Dorset & Laura Nicoline Purup (2011-12), Hans Christian Hvistendahl & Chris Kovács (2011-12), Elisa Bang Møller & Thomas Jakobsen Nygaard (2011-12), Frank Ulrich (2011-12); Sofie Abildgaard Skau (2012-13), Martin Rother Petersen & Morten Dybdal (2012-13), Stefan Holm & Jens Søndergaard (2013), Espen Fjeld (2014), Mads Hundahl (2014-15), Jakob Vang Glud & Gunnar Johildarson (2015), Preben Jensen (2015), Kathrine Stampe (2015), and Niels Elmegaard Bæk (2016).
- ✳ 50+ master thesis students.

## ADMINISTRATIVE RESPONSIBILITIES:

- ✳ **Study coordinator (2014-16)** of the Master of Science (MSc) program in Information Technology (Danish: "cand.it. i It, kommunikation og organisation"), Aarhus University.
- ✳ **Study coordinator (2012-13)** of the Master of Science (MSc) program in Information Technology (Danish: "cand.it. i It-ledelse"), Aalborg University.

## PRACTITIONER TRAINING PROGRAMMES:

- ✳ **"CMMI Intro":** CMMI introduction for Terma managers (2005-2006), Terma Academy.
- ✳ **"Requirements Management and DOORS":** Educating Terma employees – project managers, system engineers, and project participants – in requirements management at Terma, including tool (DOORS) support (2008-2010), Terma Academy.
- ✳ **"JIRA Introduction":** Educating Terma employees in the use of JIRA – a bug, issue, and project tracking tool for software development (2010), Terma Academy.
- ✳ **"Terma Management System 2":** Introducing all Terma employees to the Terma Management System – an ISO 9001 certified quality management system (2009-2010), Terma Academy.
- ✳ **"Terma Management System for Managers":** Informing Terma managers about their roles and responsibilities (2010-2010), Terma Academy.

## LABORATORY TEACHING:

- ✳ **Instructor (2002-2003):** the course "Systems Development and Databases"; the Master of IT programme at the Aarhus School of Business, Aarhus University.
- ✳ **Instructor (2002-2003):** the course "[Java] Programming"; the Master of IT programme at the Aarhus School of Business, Aarhus University.

## PROFESSIONAL EXPERIENCE

### MANAGEMENT EXPERIENCE WITH:

- **CMMI based Software Process Improvement (SPI).** Terma's SPI project (2004-2007) targeting CMMI level 2. Roles and Responsibilities: *CMMI training and maturity assessments.*
- **Metrics.** Establishing production metrics (Line of Balance) to accommodate information need on

- Joint Strike Fighter (F-35) programme.  
Roles and Responsibilities: *project manager*.
- **Obsolescence management.**  
Improving processes related to Diminishing Manufacturing Sources and Material Shortages (DMSMS).  
Roles and Responsibilities: *project manager*.
  - **Personnel management.**  
Directing and coaching employees; staff development.  
Roles and Responsibilities: *department manager*.
  - **Portfolio management.**  
Planning, prioritizing between, initiating, and monitoring company portfolio of improvement projects. Roles and Responsibilities: *corporate-wide SPI manager*.
  - **Product management.**  
Defining corporate product management strategy and product life-cycle model. Roles and Responsibilities: *project manager*.
  - **Project status reporting.**  
Calculating and reporting on key financial figures.  
Roles and Responsibilities: *responsible for financial status reporting on all company projects to executive management*.
  - **Risk management.**  
Improving processes related to risk mitigation; implementing risk management software (DOORS).  
Roles and Responsibilities: *Process owner; responsible for DOORS (technical contact)*.
  - **Scrum.**  
Deployment of Scrum (agile software development framework). Roles and Responsibilities: *project owner*.
  - **Supplier management.**  
Improving processes related to (i) approving and monitoring suppliers, and (ii) quality inspection.  
Roles and Responsibilities: *project manager*.

#### MANAGEMENT COURSES ATTENDED:

- Fra faglig specialist til personaleleder, CfL (2009)
- Lean ledelse i servicevirksomheder, Mannaz (2009)
- Lederen som coach, Mannaz (2009)
- Mastering Process Improvement, Software Engineering Institute, Carnegie Mellon University (2007)
- CMMI Version 1.2 Upgrade Training, Software Engineering Institute, Carnegie Mellon University (2007)
- Intermediate Concepts of Capability Maturity Model Integration (CMMI), Software Engineering Institute, Carnegie Mellon University (2005)
- Introduction to Capability Maturity Model Integration (Staged Representation), V1.1, Borland (2005)

#### LIST OF PUBLICATIONS<sup>1</sup>

##### ARTICLES:

- ✂ Müller, S., Mathiassen, L., Saunders, C. & Kræmmergaard, P. (2016), **“Political Maneuvering During Business Process Transformation: A Pluralist Approach”**, accepted for publication in the Journal of the Association for Information Systems (Manuscript ID: RA-JAIS-14-0142.R2). \*
- ✂ Müller, S. & Jensen, P. (2016), **“Big Data in the Danish Industry: Application and Value**

- Creation”**, accepted for publication in Business Process Management Journal (Manuscript ID BPMJ-01-2016-0017).
- ✂ Ulrich, F., Mengiste, S. & Müller, S. (2015), **“Informal Evaluation and Institutionalization of Neoteric Technology Ideas: The Case of Two Danish Organizations”**, accepted for publication by Communications of the Association for Information Systems (Manuscript ID: Regular-14-182.R2). \*
- ✂ Müller, S., Holm, S. & Søndergaard, J. (2015), **“Cloud Computing: Toward a Maturity Model”**, Communications of the Association for Information Systems, vol. 37, article 42, pp. 851-878. \*
- ✂ Müller, S. & Skau, S. (2015), **“Success Factors Influencing Implementation of E-government at Different Stages of Maturity: A Literature Review”**, International Journal of Electronic Governance, vol. 7, no. 2, pp. 136-170. •
- ✂ Müller, S. & Nielsen, P. (2013), **“Competing Values in Software Process Improvement: A Study of Cultural Profiles”**, Information Technology & People, vol. 26, no. 2, pp. 146-171. \*
- ✂ Müller, S. & Ulrich, F. (2013), **“Creativity and Information Systems in a Hypercompetitive Environment: A Literature Review”**, Communications of the Association for Information Systems, vol. 32, no. 7, pp. 175-200. \*
- ✂ Müller, S., Mathiassen, L. & Balshøj, H. (2010), **“Software Process Improvement as Organizational Change: A Metaphorical Analysis of the Literature”**, Journal of Systems and Software, vol. 83, no. 11, pp. 2128-2146. •
- ✂ Müller, S., Kræmmergaard, P. & Mathiassen, L. (2009), **“Managing Cultural Variation in Software Process Improvement: A Comparison of Methods for Subculture Assessment”**, IEEE Transactions on Engineering Management, vol. 56, no. 4. •

##### MONOGRAPHS:

- ✂ Müller, S. (2008), **The Politics of Process Implementation: Explaining Variations Across Units in a High-Tech Firm**, ISBN: 978-8778823-40-3, Aarhus School of Business, Denmark.

##### REFEREED PROCEEDINGS:

- ✂ Festila, M. & Müller S. (2017), **“The Impact of Technology-Mediated Consumption on Identity: The Case of Airbnb”**, accepted for publication at The 50th Hawaii International Conference on System Sciences (HICSS). •
- ✂ Müller, S. & Fjeld, E. (2015), **“The Effects of Information Technology on Business Model Innovation”**, Proceedings of the 38th Information Systems Research Seminar in Scandinavia (IRIS38), August 9-12 2015, Oulu, Finland. •
- ✂ Müller, S. & Ulrich, F. (2015), **“The Competing Values of Hackers: The Culture Profile that Spawned the Computer Revolution”**, The 48th Hawaii International Conference on System Sciences (HICSS), pp. 3434-3443. •

<sup>1</sup>An asterisk (\*) indicates BFI-level 2, and a bullet (•) indicates BFI-level 1 as per <http://ufm.dk/forskning-og-innovation/statistik-og-analyser/den-bibliometriske-forskningsindikator/autoritetslister/autoritetslisten-for-serier-2016-2017-xlsx.pdf>.

- ✍ Müller, S., Ulrich, F. & Nielsen, P. (2014),  
**"When Process Is Getting in the Way of Creativity and Innovation"**, The 47th Hawaii International Conference on System Sciences (HICSS), pp. 221-229. •
- ✍ Müller, S., Møller, E. & Nygaard, T. (2012),  
**"IT-enabled Process Innovation: A Literature Review"**, Proceedings of the Eighteenth Americas Conference on Information Systems, Seattle, Washington, August 9-12, 2012. •
- ✍ Müller, S., Reinwald, A. & Kræmmergaard, P. (2011),  
**"Dynamic Relationships in E-Government Initiatives: Craftsmanship, Partnership, Companionship, and Entrepreneurship"**, The 2011 pre-ICIS SIG eGovernment workshop, The 2011 International Conference on Information Systems (ICIS 2011).
- ✍ Müller, S., Nielsen, P. & Boldsen, M. (2008),  
**"An Examination of Culture Profiles in a Software Organization Implementing SPI"**, Proceedings of the 16th European Conference on Information Systems (ECIS2008), June 9-11, Galway, Ireland. •
- ✍ Müller, S., Nørbjerg, J. & Cho, H. (2007),  
**"Assessment Tools as Drivers for SPI: Short-term Benefits and Long-term Challenges"**, Proceedings of the 30th Information Systems Research Seminar in Scandinavia (IRIS30), August 11-14 2007, Tampere, Finland. •
- ✍ Müller, S., Nørbjerg, J. & Cho, H. (2007),  
**"Assessment Tools as Drivers for SPI: Short-term Benefits and Long-term Challenges"**, Proceedings of the 16th International Conference on Information Systems Development (ISD2007), August 29-31 2007, Galway, Ireland.
- ✍ Müller, S., Glud, J., & Johildarson, G. (2016),  
**"The Impact of Organizational Culture on Digital Innovation: The Case of a Danish Newspaper Company"**, submitted for review to Journal of Information Technology (Manuscript #: JIT-15-0265-R).
- ✍ Müller, S. & Hundahl, M. (2016),  
**"IT-Driven Business Model Innovation: Sources and Ripple Effects"**, submitted for review to Journal of Organizational Computing and Electronic Commerce (Manuscript ID: JOCEC 16-02-200).
- ✍ Ulrich, F. & Müller, S. (2016),  
**"Encouraging Divergent Thinking from Knowledge Generated during Idea Evaluation: A Design Experiment with Creativity Enhancing Systems"**, submitted for review to Creativity and Innovation Management (Manuscript ID: 1366-CIM-A-02-2016).
- ✍ Ulrich, F. & Müller, S. (2016),  
**"Hack the Business: Decoding the Innovation Outlaws"**, submitted for review (2nd review) to MIT Sloan Management Review (Manuscript #6855).
- ✍ Müller, S. & Bæk, N. (2016),  
**"Value co-creation through digital innovation"**, will be submitted to Business Horizons.
- ✍ Müller, S., Mathiassen, L. & Saunders, C. (2016),  
**"Critical Pluralism: Between Empirical Description and Theory Building"**, invited submission to special issue of the Journal of the Association for Information Systems.
- ✍ Müller, S., Dorset, A. & Purup, L. (2013),  
**"IS Driven Process Innovation: A Literature Review Based on Swanson's Tri-Core Model of IS Innovation"**.

#### BOOK CHAPTERS:

- ✍ Müller, S., Nielsen, P. & Nørbjerg, J. (2008),  
**"Standards, Processes and Practice in SPI"** in Software Processes & Knowledge. Beyond Conventional Software Process Improvement, eds. Nielsen, P. & Kautz, K., Software Innovation Publisher, Aalborg.

#### WORKING PAPERS:

- ✍ Stampe, K. & Müller, S. (2016),  
**"The Intertwining of Technologies and Work Practices: The Case of Google Glass in Danish Agriculture"**, submitted for review to Scandinavian Journal of Information Systems (Manuscript ID: #1485).
- ✍ Müller, S., Rodil, L., & Páske, N. (2016),  
**"Managing Ambidexterity in Startups pursuing Digital Innovation"**, submitted for review to Journal of Management (Manuscript ID: JOM-16-0390).
- ✍ Heeager, L. & Müller, S. (2016),  
**"Balancing flexibility and control: competing values in software development"**, submitted for review to IEEE Transactions on Software Engineering (Manuscript ID: TSE-2015-11-0369).
- ✍ Obwegeser, N. & Müller, S. (2016),  
**"Innovation and public procurement: Terminology, Concepts, and Applications"**, submitted for review to Technovation (Manuscript no.: TECHNOVATION-D-16-00282).
- ✍ Müller, S. & de Lichtenberg, C. (2016),  
**"The culture of ITIL: values and implementation challenges"**, submitted for review (2nd review) to Information Systems Management (Manuscript ID: UISM-2015-146.R1).