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Curriculum Vitae

Niels Christian Juul

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born on June 3^{rd}, 1955 in Copenhagen, Denmark

Degrees

1993	Ph.D. (lic.scient.) in Computer Science from University of Copenhagen, Denmark. Thesis title: *Comprehensive, Concurrent, and Robust Garbage Collection in the Distributed, Object-Based System, Emerald* [17] .
1988	Graduated in Computer Science from University of Copenhagen, Denmark with a Master of Science degree (cand.scient.).

Further Post-Graduate Education

2005	Year long national course in leadership for University Department Chairs (Institutlederkursus) arranged in collaboration between the Danish Rectors' Conference (Rektorkollegiet) and University of Southern Denmark (SDU Efteruddannelse).
1997 - 1999	Diploma in Management, Basic Leadership Development (GL - Grundlæggende lederudvikling) at DiEU (Danish International Continuing Education).

Full-time Employments

2016 - 2018	Associate Professor (Lektor) in Computer Science at Department of People and Technology, Roskilde University.
2006 - 2015	Associate Professor (Lektor) in Computer Science at Department of Communication, Business and Information Technologies, Roskilde University.
2000 - 2006	Associate Professor (Lektor) in Computer Science at Department VII - Communication, Journalism and Computer Science, Roskilde University.
1995 - 2000	Associate Professor (Lektor) in Computer Science at Department of Informatics (until Spring 1998, Informatics and Management Accounting) at Copenhagen Business School.
1994 - 1995	Temporary Associate Professor (Lektorvikar) at Institute of Computer and Systems Sciences at Copenhagen Business School.
1994 - 1994	Lecturer (Amanuensis) at Department of Computer Science, University of Copenhagen.
1993 - 1994	Post Doc at Department of Computer Science, University of California at Riverside.

Selected Scientific, Administrative and Management Appointments

2019 -	Associate Professor Emeritus in Computer Science at Department of People and Technology, Roskilde University.
2017 -	Vice-chairman of the Danish Computer Science Society (Dansk Selskab for Datalogi).
2012 -	Founding member of The Danish Council for Digital Security (Rådet for digital sikkerhed). Member of the board since 2012.

2012 - 2016	Danish delegate (or substitute) to the Management Committee of the EU COST Actions TD1202 (Mapping and the citizen sensor), IS1202 (Dynamics of Virtual Work), and IC1106 (Integrating Biometrics and Forensics for the Digital Age).
2008 - 2013	Founding member of The Danish Council for Greater IT-Security (Rådet for større IT-sikkerhed). Member of the board 2008-2009.
2008 - 2010	Associate Editor of the EURASIP Journal of Information Security.
2007 - 2010	Chairman of the Danish Computer Science Society (Dansk Selskab for Datalogi).
2006 - 2011	Danish delegate to, Secretary and, since 2008, Grant Holder for, the Management Committee of the EU COST Action 2101.
2006 - 2010	Founding member of Center for Wireless Technologies and Business at the Engineering College of Copenhagen.
2006 - 2008	Vice-chairman of Danish Biometrics Research Project Consortium.
2006 - 2007	Appointed by the Minister of Science, Technology and Innovation for the advisory board: *IT Security Panel*.
2004 - 2005	Member of the national expert committee regarding ENISA (IT- og Telestyrelsens ENISA ekspertgruppe).
2003 - 2006	Head of the Department of Communication, Journalism, and Computer Science at Roskilde University.
2002 - 2005	Member of the board at Øresund IT Academy.
2002 - 2003	Head of the Computer Science Section at Roskilde University.
2002 - 2003	Member of the University Research Coordination Committee (URCC).
1999 - 2006	Representative to the Council of the Federation of Danish Tax Complaints Committees (Kontaktrådet for Foreningen af Danske Skatteankenævn).
1998 - 2010	Member of the corps of external examiners in computer science and in civil engineering at Universities in Denmark.
1998 - 2006	Chair or First Vice-Chair of the local Tax Complaints Committee (Skatteankenævnet) in Glostrup.
1997 - 2006	Head of the local board of political party in Glostrup (Also in 1991-92).
1996 - 2015	Independent consultant (private consulting company, NCJuul on hold during 2003-2007.

Research Interests

Current research focussing on *IT Security* including identity, biometrics, GDPR, and privacy. Acceptance of technological innovation including the relations between technical, organizational, and human aspects are studied in the context of designing, building and maintaining innovative and secure IT systems.

Research background in *distributed systems*, in particular the underlying technology: distributed operating systems. Focus has been on both design, implementation, performance, and paradigms for process communication, concurrency, distribution, consistency, replication, object-orientation, and fault-tolerance. Especially within management of memory from memory allocation to garbage collection and distributed shared memory. Related areas of research include: computer architectures, networks, Internet, operating systems, mobile computing, security, and programming languages.

Research Experience

The research is founded in the tradition of natural science research; but it has also been challenged by social science research. The dissemination of EDI in the Danish public and private sectors based on quantitative and qualitative inquiries. Previous research projects: Emerald and Mirage. The research method is partly experimental (based on software constructs), and partly explorative (based on the study of information technology implementations).

Teaching Experience

Teaching computer science at the undergraduate and graduate level including Master and Ph.D. Thesis supervision at Roskilde University, University of Copenhagen, and Copenhagen Business School. Managing courses, developing curricula, and participating in Study Boards. Also teaching “Open University”-courses and participating in Executive MBA teaching. External teaching at the IT-University in Copenhagen, Copenhagen Business School, University of Copenhagen, Copenhagen Business College (Niels Brock), and DELTA.

Management Skills and Experience

Holding a diploma in Basic Management (Basic Leadership, Managing Changes, Managing People, and Managing Decisions) from the Danish International Continuing Education (DiEU) and a course in University Department Chair Leadership from 2005. Until late 2006 Acting Head of the enlarged Department CBIT at Roskilde University and previously for more than three years Head of Department VII at Roskilde University with responsibility of 100+ employees. Before that Section Head of the Computer Science Section. Serving as a member (or chair) of several boards and committees for both academic and public organizations with duties on the strategic and operational level. Previously also coordinating computing facilities at department level, including the management of support staff.

Technical Skills

Forty years practical experience in building and using computer systems and networks. Knowledge and extensively use of many systems (programming languages, utilities, operating systems, computers and networks) over the years.

Academic Networks

Current or former member of multiple Computer Professional Societies international and domestic, including: Dansk Selskab for Datalogi, IDA IT, IDA Embedded, IDA RISK, IDA TTS, Dansk IT, RISKnet, IEEE Computer Science, ACM, USENIX, CPSR, and DISP. Besides participation in the work of the above mentioned associations and the relations to colleagues domestic and abroad, engaged in the construction of various human networks, nationally and internationally.

Invited Talks and Public Relations

Research results have been presented at a range of institutions and conferences in connection with visits in Europe and North America as well as to the Danish industry.

Presenting the views of an expert in IT related matters in Danish press, e.g., about the Internet, IT security, privacy and e-commerce on Danish national radio.

Editorial, Referee and Evaluation Appointments

Member of the editorial board, program committee and reviewer for numerous scientific conferences and journals. International evaluator of project applications for Research Councils in Australia (Australian Research Council, 2004-2006, 2012-2014), United States of America (National Science Foundation, 2006), and the European Commission (EU ICT PSP, 2007). Member of Ph.D. evaluation committees at Scandinavian universities. Evaluator of scientific merits of applicants for positions at Copenhagen Business School, Technical University of Denmark, Aalborg University and Roskilde University since 1999.

Selected Publications

A full list of more than 50 publications (2/3 peer reviewed) is available by visiting the homepage (http://www.ruc.dk/~ncjuul/cv) or by request.

[1] Peter Mooney, Ana-Maria Olteanu-Raimond, Niels Christian Juul, Guillaume Touya, Seraphim Alvanides, and Norman Kerle. Considerations of privacy, ethics and legal issues in volunteered geographic information. In Giles Foody, Linda See, Steffen Fritz, Peter Mooney, Ana-Maria Olteanu-Raimond, Cidalia Coste Fonte, and Vyron Antoniou, editors, *Mapping and the Citizen Sensor*, pages 119–135. Ubiquity Press, 9 2017.

[2] Troels Andreasen, Niels Christian Juul, and Mads Rosendahl. Designing software-based interactive installations. In Jesper Simonsen, editor, *Situated Design Methods*, chapter 14, pages 259–278. MIT Press, 2014.

[3] Niels Christian Juul. Recommendations on the use of biometric technology. In Patrizio Campisi, editor, *Security and Privacy in Biometrics*, chapter 16, pages 413–431. Springer, June 2013. Revised version of [18].

[4] Claus Vielhauer, Jana Dittmann, Andrzej Drygajlo, Niels Christian Juul, and Michael Fairhurst, editors. *Biometrics and ID Management*, volume 6583 of *Lecture Notes in Computer Science*, Brandenburg, Germany, 2011. EU COST Action 2101 BIDS, Springer. Proceedings of the Third European Workshop on Biometrics and Identity Management (BIOID 2011).

[5] Ben Schouten, Niels Christian Juul, Andrzej Drygajlo, and Massimo Tistarelli, editors. *Biometrics and Identity Management*, volume 5372 of *Lecture Notes in Computer Science*, Roskilde, Denmark, 2008. EU COST Action 2101 BIDS, Springer. Proceedings of the First European Workshop on Biometrics and Identity Management (BIOID 2008). Revised and extended version of [19].

[6] Kim Viborg Andersen, Helle Zinner Henriksen, and Niels Christian Juul. Overvæltning af kvalitetssikring til de eksterne brugere: Elektroniske indkøb. In *Den brugerdrevne forvaltning – muligheder og grænser for digitalisering*, chapter 5, pages 69–84. Jurist og Økonomforbundets Forlag, Copenhagen, March 2007. (In Danish).

[7] Morten Hetzum, Niels Christian Juul, Niels Jørgensen, and Mie Nørgaard. Usable security and e-banking: Ease of use vis-a-vis security. In *OZCHI 2004 Conference Proceedings. OZCHI: the annual conference for the Computer-Human Interaction Special Interest Group (CHISIG) of the Human Factors and Ergonomics Society of Australia*, University of Wollongong, New South Wales, Australia, November 2004.

[8] Kim Viborg Andersen and Niels Christian Juul. Digital wheel barrows in local government. In Yao-Hua Tan and Douglas R. Vogel, editors, *Proceedings of the* 17^{th} *Bled eCommerce Conference - eGlobal*, volume Research Volume, Bled, Slovenia, June 2004. Published on CD-ROM: Content/47Andersen.pdf.

[9] Kim Viborg Andersen, Niels Christian Juul, Sara Korzen-Bohr, and Jimmy Kevin Pedersen. Fractional institutional endeadvors and E-Procurement in local government. In *Proceedings of the* 16^{th} *Bled eCommerce Conference - eTransformation*, volume Research Volume, pages 961–973, Bled, Slovenia, June 2003. Published on CD-ROM: ResearchVolume/68Ander.pdf.

[10] Niels Christian Juul and Niels Jørgensen. The security hole in WAP - an analysis of the network and business rationales underlying a failure. *International Journal of Electronic Commerce*, 7(4):73–92, Summer 2003. Revised version of [20].

[11] Niels Christian Juul and Claudia Loebbecke. Commercial E-Commerce Servers and Enterprise Application Integration: A Case-Based Comparison of Net.Commerce and Site Server Commerce. In Jr. Ralph H. Sprague, editor, *Proceedings of the* 34^{th} *Hawai'i International Conference On System Sciences (HICCS)*, Maui, Hawaii, USA, January 2001. IEEE.

[12] Kim Viborg Andersen, Niels Bjørn Andersen, Niels Christian Juul, Helle Zinner Henriksen, and Deborah Bunker. *Business-to-Business E-commerce: Enterprices Facing A Tubulent World?* DJØF Publishing, Copenhagen, Denmark, November 2000. ISBN 87-574-0258-2.

[13] Kim Viborg Andersen, Niels Bjørn Andersen, Niels Christian Juul, and Deborah Bunker. Electronic Commerce and Document Interchange: EDI Applications in Denmark. In Renchu Gan, editor, *The* 16^{th} *World Computer Congress 2000, Information Technology for Business Management, Proceedings*, pages 607–614, Beijing, China, August 2000. International Federation for Information Processing (IFIP) & Publishing House of Electronics Industry.

[14] Niels Christian Juul, Kim Viborg Andersen, and Niels Bjørn Andersen. Electronic Commerce in Denmark: The Spread of EDI in Business-to-Business Transactions. In *Proceedings of the third USENIX Workshop in Electronic Commerce*, Boston, USA, September 1998. USENIX.

[15] Kim Viborg Andersen, Niels Bjørn Andersen, and Niels Christian Juul. *Elektronisk handel og dokumentudveksling: EDI-anvendelsen i den offentlige og private sektor.* Samfundslitteratur, Copenhagen, Denmark, July 1998. (In Danish).

[16] Brett D. Fleisch, Randall L. Hyde, and Niels Christian Juul. Mirage+: A kernel implementation of distributed shared memory on a network of personal computers. *Software—Practice & Experience*, 24(10):887–909, October 1994.

[17] Niels Christian Juul. *Comprehensive, Concurrent, and Robust Garbage Collection in the Distributed, Object-Based System, Emerald.* PhD thesis, DIKU, Department of Computer Science, University of Copenhagen, Denmark, February 1993. Available as Technical Report DIKU 93/1.

[18] Niels Christian Juul. Recommendation on the use of biometric technology. In *Workshop on Privacy and Security for Biometrics*, Las Palmas, Grand Canarias, Spain, May 2010. EU COST Action 2101 BIDS. unpublished workshop contribution, later published in [3].

[19] Ben Schouten and Niels Christian Juul, editors. *Proceedings of the First European Workshop on Biometrics and Identity Management (BIOID 2008)*, number 121 in Computer Science Research Reports, Roskilde University, Denmark, April 2008.

[20] Niels Christian Juul and Niels Jørgensen. Security issues in mobile commerce using WAP. In *Proceedings of the* 15^{th} *Bled Conference in Electronic Commerce - e-Reality: Constructing the e-Economy*, volume Research Volume, pages 444–462, Bled, Slovenia, June 2002. Revised version of [**?**].