



Curriculum Vitae, 12th of February, 2024

SÖDERGÅRD Caj Gustav (Male)

1. Personal details

Born: 1954, Larsmo, Finland, Finnish citizen, <https://orcid.org/0000-0002-7379-8610>, Wikipedia:

https://fi.wikipedia.org/wiki/Caj_S%C3%B6derg%C3%A5rd

2. Education and degrees completed

- Dr Tech, Helsinki University of Technology, Information Technology, 8.12.1994, Espoo (www.aalto.fi)
- LicTech, Helsinki University of Technology, Information Technology, 17.12.1990, Espoo
- MSc (Engineering) (with honours), Helsinki University of Technology, Computer Science, 11.3.1980, Espoo
- Matriculation Examination, (6/6 laudatur), Jakobstads Samlyceum, 31.5.1973, Jakobstad, Finland

Leadership training

- JET special professional degree in leadership, Omnia, 15.3.2007 – 14.1.2009, 120 hours
- VTT Executive 4 (part of MBA), HKKK Executive Training Centre, 6.5.2002 – 13.11.2002, 320 hours

3. Current position

Professor at [NextAI](#), 2022 -

4. Previous work experience

- Permanent Research Professor in digital media and service technology, VTT Technical Research Centre of Finland Ltd, Espoo, 2002-2022
- Research and Technology Manager, VTT Media Research Area, 2004 – 2012
- Research Professor in digital media technology, VTT, Fixed term. 1997 – 2001
- Senior Research Scientist and Group Manager, VTT, 1984 – 2004, Research Scientist, VTT, 1982 – 1983
- System designer, Decon Ltd in Espoo, 1979 – 1981
- Research assistant, Helsinki University of Technology, 1979
- Assistant teacher in Physics, part time, Helsinki Institute of Technology, 1976 – 1979
- *Board member* of AI, Data and Robotics Association 2021- 2023, European Big Data Value Association, 2015 - 2022, Forum Virium Helsinki, 2010 - 2021, ANVIA TV company, 2009 – 2010. Board member and *founder* of Ultravision Ltd, 2000 – 2001. Advisory Board member of Lincoln Method Ltd 2023 -.

6. Personal research funding and grants

Main projects during my professorship relating to the project topic, where I have been main responsible

- [AI Empowered Material Scientist](#) (AIMS). IBEX project 2021-2022. 225 k€.
- [Data-driven Bioeconomy](#) (DataBio). Initiator, Technical Manager and WP leader. EU Lighthouse project, 2017-2020. 16,2 M€, VTT part 1,5 M€.
- [LibDat: Towards a More Advanced Loaning and Reading Culture](#). A Study, Based on Digital Material, of Contemporary Finnish Loaning and Reading Habits. Finnish Academy 2017 – 2021. PI for VTT part (245 k€).
- [Immersive Automation](#), automatic generation of news. Tekes, 2016 – 2018. VTT part 350 k€.
- [Digital Disruption in Industry](#). Strategic Research Council. 2015 – 2020. Task budget for VTT 120 k€.
- Recommendation Technology. Responsible: benchmarking. Norwegian Res. Council, 1.6.2015-1.6.20. 50 k€ (VTT part).
- Big Data in Media Applications. Viestinnän tutkimussäätiö, 1.2. -30.6.2015. 70 k€
- Smart Collaborative Spaces, European Institute of Technology/ICTLabs, 2013-2014, 190 k€ (VTT's part).
- Adult Education and Company Internal training, TEKES/Digile Digital Service program 2012 -2015, 260 k€
- [Next Media](#) TEKES/Digile program. VTT coordinator and program steering group member, 2010-2014, 5,8 milj. € (VTT's part).
- [SOMUS- Social media for citizen participation](#). Academy of Finland MOTIVE program, 2009 – 2010. About 320 k€ (VTT's part).
- Flexible Services TEKES/Digile program. VTT coordinator and program managing group member. 2008-2010. About 1,5 milj. € (VTT's part).
- [Climate Bonus](#) - A service to reduce the greenhouse gas emissions of consumption. TEKES Climbus, 2008-2009, about 400 k€ (VTT's part).
- [HyperFit](#) - Hybrid media in personal management of nutrition and exercise. TEKES FENIX program, 2005 – 2007.
- [TIVIK](#) – A context-based personalized information system for developing product information to the consumer. TEKES FENIX, 2003 – 2005.

- [Mobile-TV](#) - Mobile television in fourth-generation networks, TEKES NETS program, 2001-2003.

7. Leadership and supervision experience

During most of my career at VTT, I have *managed* projects and teams. During 2004 - 2012, I managed the Media Technologies knowledge centre, that at most had 63 researchers in 9 teams. The management work included deciding the research agenda, fund raising, creating organisational structures, recruiting and managing personnel, as well as the daily running of operations. More than 100 projects yearly were performed in the centre in cooperation with companies. As a part of networking, I have been in the steering and leadership team of significant national SHOK research programs Digile /Next Media, Digile/Flexible Services. Currently, on the leadership board of the Data-driven Solution research area and responsible for Collaborative Intelligence line. I was the VTT research leader in Finnish Centre for Artificial Intelligence.

Supervisor of the doctoral thesis of Janne Laine (Aalto, dissertation 9.11.2018), Ville Ollikainen (Aalto, planned dissertation 2021). In addition I have lead a doctoral study circle at VTT since 2012, of which participants 5 are doctors today. Supervisor of several M.Sc. works, most recent Erik Berglund, 2016.

9. Experience of organising scientific meetings

14.10 – 16.10.2019. European Big Data Value Forum. Chair. 500 participants and 40 exhibitors (<http://ebdvf.eu>)

27.6 – 29.6.2017. Data-driven Bioeconomy (DataBio) summit, Kirkkonummi. Main organizer. 80 participants from 18 countries.

24.4 – 25.4.2013. Nordic Next Media Seminar on Semantic Media. Espoo. Main organizer. 50 participants from 4 countries.

In addition, I have organized more than 10 domestic seminars, mainly for the media industry, with typically 50 -100 participants.

10. Patents, inventions awards and honours

- 5 granted patents including a US patent. 8 US and international patent applications.
- Knight, First Class, of the Order of the Lion of Finland, 2010.
- Swedish Academy of Engineering Sciences in Finland, Silver Medal of Honour, 2011.
- VTT Award for Excellence 2020
- VTT Award for successful utilization of IT in colour image processing, development of remote proofing systems and in video printing, 1995.

11. Other key scientific or academic merits

Doctoral dissertations, Examiner and Opponent Functions

- *Opponent* in the doctoral dissertations of Vinod Kumar Malamal Vadakital, 2012, Artur Lugmayr 2005, Flohan Lohan 2004, Birgitta Martinkauppi 2002, Christopher Rosenqvist, KTH, Sweden, 2000, Jaakko Sauvola, 1997.
- *Examiner* of the doctoral thesis of Rajenda Pamula, 2015, Marja Heinonen, 2008, Ester Appelgren, 2005, Artur Lugmayr, 2005, Elena Casiraghi, 2004, Janne Ahonen 2003, Birgitta Martinkauppi, 2002, Janne Saarela, 1999, Seppo Leppäjärvi, 1999, Jaakko Sauvola, 1997.

Evaluator of professorships, docents and university lectors

- Professorship in Digital Transformation in Society, 2/4/2017, Aalto University, Finland, Docent application of Christopher Rosenqvist, 2010, KTH, Sweden, Senior Lecturer in media technology, 2008. KTH, Sweden, Professorship in media electronics, 2006. KTH, Sweden, Lecturer in media technology, 2004. KTH, Sweden, Professorship in Computer Science, 2003. Univ.Oulu, Docent application of Oleg Okun 2003 Univ.Oulu, Professorship in Computer Science, 2000. Univ.Oulu, Professorship in Computer Science, 1999. Tech.Univ. Tampere, Finland

Other merits

- 2024, international evaluator for post doc applicants to the Irish NeuroInsight fellowship.
- 2021, international evaluator of projects applications in Digital Futures, Sweden. 2019, 2018, 2016, 2001, 1995. Evaluator of EU research proposals,
- Interviews in newspapers and domestic/international magazines. Interviews in radio and television programs 2002-2018 (YLE, MTV).
- 2006, Opinion writing: Juhola H., Södergård, C., Hybridimediaan kannattaa panostaa, Helsingin Sanomat editorial
- Spin-off company. Ultravision Ltd. 2000 – 2008 based on my work and patent in hybrid media.
- Finnish-Swedish Parental Association - member of the board 1998 – 2002.
- Leader of TEKNATUR competition for school pupils, 1999 – 2004, selection committee 1999-2021

12. Memberships and positions of trust in scientific societies

- 2021-2023. Vice president and Board member of AI, Data and Robotics Association.
- 2015- 2017. Member of the EU High Level Expert Group on European Open Science Cloud.
- 2018-2020. Member in the BDVA taskforce on Artificial Intelligence.
- 2015 - 2021. Member of the Board of the European Big Data Value Association BDVA.
- 1999 -, Fellow of the Swedish Academy of Engineering Sciences in Finland, Board member 2003 – 2009.

- 1997,1998. Member of the W3C workgroup on Metadata.
- 1980 - .Member of Finnish Pattern Recognition Society.
- 2020- . Member of Finnish AI Society.

Publications (10 most important) of Caj Södergård

Hyperlinks are provided to most publications. All 276 publications, see <https://orcid.org/0000-0002-7379-8610>

Södergård, C., Laakko, T, [Inferring Students' Self-Assessed Concentration Levels in Daily Life Using Biosignal Data From Wearables](#), in *IEEE Access*, Vol. 11, pp. 30308-30323, 2023.

Caj Södergård, C, Mildorf, T., Habyarimana, E., Berre, A., Fernandes J., Zinke-Wehlmann (eds.), [Big Data In Bioeconomy](#), 202, Edited book, Springer Verlag, 423 pages, DOI: [10.1007/978-3-030-71069-9](https://doi.org/10.1007/978-3-030-71069-9)

Chaabouni, K., Bagnato, A., Walderhaug, S., Berre, A. J., **Södergård, C.**, & Sadovykh, A. (2019). Enterprise architecture modelling with ArchiMate. *CEUR Workshop Proceedings*, 2405, 79-84. http://ceur-ws.org/Vol-2405/14_paper.pdf

Melin, M., Bäck, A.; **Södergård, C.**; Munezero, M.; Leppänen, L., Toivonen, H., [No landslide for the human journalist - An empirical study of computer-generated election news in Finland](#), *IEEE Access*, Vol. 6, Issue 2018, 12 pp.

Ayris, Paul; Berthou, Jean-Yves ; Bruce, Rachel ; Lindstaedt, Stefanie ; Monreale, Anna ; Mons, Barend ; Murayama, Yasuhiro ; **Södergård, Caj**; Tochtermann, Klaus; Wilkinson, Ross, [Realising the European Open Science Cloud](#). *European Union*, 2016. 24 p.

Vainikainen, Sari; Melin, Magnus; **Södergård, Caj**. 2013. Knowledge-based recommendations of media content: case magazine articles. *Journal of Print and Media Technology Research*, vol. 3, 3, ss. 169 – 18.

Hyvönen, K., Saastamoinen, M., Hongisto, M., Kallio, A., & **Södergård, C.** (2012). A monitoring and feedback service as a way to reduce the greenhouse gas emissions of consumption. *International Journal of Consumer Studies*, 36(2), 221- 227. <https://doi.org/10.1111/j.1470-6431.2011.01077.x>

Södergård, Caj (ed.). 2003. [Mobile television - technology and user experiences](#). 238 p. + app. 35 p. *VTT Publications 506*.

Bäck, A., Vainikainen, S., **Södergård, C.**, & Juhola, H. (2003). Semantic web technologies in knowledge management. *7th International ICCCI/FIP Conference on Electronic Publishing* - Guimares, Portugal. Duration: 25 Jun 2003 → 27 Jun 2003. In *Proceedings* (pp. 268 - 277). Universidade do Minho.

Södergård, Caj; Aaltonen, Matti; Hagman, Sari; Hiirsalmi, Mikko; Järvinen, Timo; Kaasinen, Eija; Kinnunen, Timo; Kolari, Juha; Kunnas, Jouko; Tammela, Antti. 1999. [Integrated multimedia publishing; combining TV and newspaper content on personal channels](#). *Computer Networks*, 31, pp. 1111 – 1128.