Kai Hakkarainen   Curriculum Vitae 1/26/2018

1. Full name:
- Professor Kai Pekka Juhani Hakkarainen, Ph.D.

1. **Date and place of birth, nationality and current residence**
   - 23rd of July, 1956, Helsinki, Finland
   - Finnish
   - Koivikkotie 16 as 2, 00630 Helsinki, **Tel: 050-4129572**
   - **Email**: kai.hakkarainen@helsinki.fi
   - **Homepages**: http://helsinki.academia.edu/KaiHakkarainen
   - **List of latest publications:** https://tuhat.halvi.helsinki.fi/portal/en/persons/kai-hakkarainen

2. **Education and degrees awarded**
   - Doctor of Philosophy, Department of Human Development and Applied Psychology, Ontario Institution for Studies in Education, University of Toronto), 1998. Thesis title: "Epistemology of Scientific Inquiry and Computer-Supported Collaborative Learning, scientific supervisor Carl Bereiter, committee members Keith Oatley, Marlene Scardamalia)
   - MA (Psychology), Department of Psychology, University of Helsinki, 1989
     (major psychology, minors theoretical philosophy, adult education)
   - Legally recognized psychologist, 1994 (National Supervisory Authority for Welfare and Health)
   - Docent of the psychology of learning, Department of Psychology, University of Helsinki, 2006-
   - Docent of cognitive-science research on learning and learning environments, Faculty of Education, University of Turku, 2001-

3. **Other education**
   - Milling-machine operator, Vallila Vocational School, 1973-75
   - Matriculation Examination, Ressu Evening School, 1976-79

4. **Linguistic skills**
   - Finnish, mother tongue; English, excellent; Swedish, satisfactory; German, satisfactory

5. **Current position**
   - Professor of Education (full tenure). Institute of Behavioral Sciences, University of Helsinki

6. **Previous work experience**
   - University of Turku, Professor of Education (focus: research, full tenure), August 2010-2014
   - Acting professor of empirical education, Department of Education, Univ. of Helsinki (2008-2010)
   - Professor of Education (full tenure; focus teaching and learning environments), Savonlinna Department of Teacher Education, University of Joensuu, 2006-2008
   - Academy Research Fellow (akatemiatutkija), the Academy of Finland, 2002-2006
   - Visiting scholar at the Ontario Institution for Studies in Education, University of Toronto, 2001-2002
   - Post-doctoral fellow (tutkijatohtori), the Academy of Finland, 1999-2002
   - Researcher, IT Center for Schools & Department of Psychology, Univ. of Helsinki, 1996-1999
   - Lecturer, Department of Psychology, University of Helsinki, 1995-1996;
   - Ph.D. studies at the Centre for Applied Cognitive Science, Ontario Institution for Studies in Education (the Academy of Finland) (1991-1997)
   - Researcher, Department of Psychology, University of Helsinki, 1989-1991;
   - Lecturer, Department of Psychology, University of Helsinki, 1989;
   - Milling-machine operator (maker of prototypes), Nokia Cable Factory, 1975-1980

7. **Research funding as well as leadership and supervision**
   - Awarded the OISE (Ontario Institution for Studies in Education) Scholarship 1991 for doctoral studies at the Centre for Applied Cognitive Science at the University of Toronto (only one student is granted this scholarship yearly) (€10.000 CAD)
   - Awarded the OISE (Ontario Institution for Studies in Education) Scholarship 1992 for doctoral studies at the Centre for Applied Cognitive Science at the University of Toronto (€10.000 CAD)
   - Awarded a grant of €74.000 for doctoral studies at the Centre for Applied Cognitive Science at the University of Toronto by the Academy of Finland, 1991-93;
   - Awarded a grant of €90.000 for analyzing cognitive effects of the Future Learning Environments in collaboration with the Media Laboratory, Helsinki University of Arts and Design, 1998-2000;
   - Awarded a grant of €60.000 for CL-Net (collaborative learning networks) project funded by EC's Targeted Socioeconomic Research Programme at the University of Helsinki, 1998-1999;
   - Awarded a grant of €90.000 for Development of Networked Expertise Project" by SITRA (a part of program for the development of national innovation system in Finland), 1999-2001;
   - Awarded €60.000 for "FLE2 environment for asynchronous and synchronous problem-based inquiry learning" by the Scandinavian NordUnet2 Programme at the University of Helsinki, 2000-2001 (Hakkarainen assumed responsibility of pedagogic design of FLE that has been used in 50+ countries);
   - Awarded a grant of €120.000 for the ITCOLE (Innovative Technology for Collaborative Learning, IST-2000-26249) project by EC's Information Society Technologies (Schools of Tomorrow) Programme 2001-2003 at the University of Helsinki (total funding of the overall project 1,1 million euro);

- Awarded a grant of €95.000 for hiring a post-doctoral fellow (Dr. Lasse Lipponen) by the Research Council of Culture and Society of the Academy of Finland; 2001-2003;
- Awarded a grant of €110.000 for Future School Research Project of Espoo City Department of Education, 2001-2005;
- Awarded a grant of €170.000 for "Building and managing collective knowledge in workplace communities with collaborative technology" project by Aaltonen Foundation", 2002;
- Awarded 168.930€ for "Technologies for supporting collective building of knowledge and transformation of workplace communities" project (Academy Research Fellow post), by the Research Council of Culture and Society of the Academy of Finland, 2002-2005;
- Awarded a grant of €245.000 for "Promoting collaborative inquiry practices at the primary level with the support of ICT" project by the Academy of Finland, 2004-2006;
- Awarded a grant of 163.490€ (84.850€ + 78.640€ for expenses) for "Toward Innovative Practices of Learning and Working" project (Academy Research Fellow post) by the Academy of Finland, 2005-2007;
- Awarded a grant of €134.000 for 3DKM project (total funding of the project €370.000) by TEKES (Technology Development Agency of Finland) at the University of Helsinki, 2004-2006;
- Awarded a grant of 11.000.000€ for Knowledge-Practices Laboratory (www.KP-Lab.org FP6-2004-IST-4, integrated project 27490) project by EC's Technology-Enhanced Learning call, 2006-2011;
- Awarded 250.000€ for Becoming a collaborative professional-- university education and epistemic agency, Academy of Finland 2007-2010 (PI Kirsti Lonka, Co-PI Kai Hakkarainen;
- Awarded 286.000€ for "Collective intelligence: How shared "trialogical" knowledge practices augment human cognitive capabilities" (PI K. Hakkarainen, Co-PIs K. Lonka, & K. Pyhältö) project (127019) by the Research Council of Culture and Society of the Academy of Finland, 2009-2012.
- Awarded 300.000 for Facilitating expansive school transformation in the SADC [Southern African Development Consortium] region (K Hakkarainen, PI, Co-PIs R Engeström, R Miettinen, & J Virkkunen); by Development research program, the Research Council of Culture and Society of the Academy of Finland, project 127019, 2009-2012.
- CRADLE was awarded 20.000€ by the Faculty of Education, Univ. of Helsinki as one of the most productive group's of the faculty after a competitive bidding.
- Awarded 30.000€ at the University of Turku by the Work Environment Fund for MoBiMe project (PI Matti Vartiainen, overall funding 100.000€) for research and development of CASS-based methods for assessing mobile work (2012-2013).
- EdPsychHE (PIs Sari Lindblom-Ylänne & Kirsti Lonka, educational psychology network (9 professors, including Hakkarainen) was granted 300.000€ in external scientific evaluation (23/25, as emerging research field) by the University of Helsinki (2013-2015).
- Awarded 972.000€ Mind the Gap between digital natives and educational practice (project 265528). Human Mind program of the Academy of Finland (PI Kirsti Lonka, co-PIs Kimmo Alho, Kai Hakkarainen, Katariina Salmela-Aro (2012-2016).
- Awarded 365.00€ for Handling Mind project (project 265922), Human Mind program of the Academy of Finland (PI Pirita Seitamaa-Hakkarainen, co-PIs Maarit Mäkelä, Kai Hakkarainen, Minna Huotilainen (2012-2016).
- Awarded 27.000€ (+ 5000€ for travelling) for sabbatical 2016 (so called professoripooli) by Finnish Cultural Foundation.
- Awarded 600.000€ for the Laboratory of Co-inquiry, co-design, co-teaching, and co-regulation (Co4-Lab) by the Research Council of Culture and Society of the Academy of Finland, PI Kai Hakkarainen, coPIs Jari Lavonen, Katariina Salmela-Aro, Pirita Seitamaa-Hakkarainen (project 1286837; 2015-2019).
- Team member of Bridging the Gaps – Affective, cognitive, and social consequences of digital revolution for youth development and education (2017-2021, 308351 & 308352) (PI Katariina Salmela-Aro, Co-PI Kirsti Lonka).
- Awarded grant of 6 million euro for "Growing Mind: Educational transformations for facilitating sustainable personal, social, and institutional renewal at the digital age" (2018-2023) consortium, the Keys to Sustainable Growth program, Strategic Research Programme of the Academy of Finland) (PI Hakkarainen). About 1,6 million will go for Hakkarainen's sub-project at Department of Education, University of Helsinki.

8. Merits in pedagogy and research training

In his dissertation monograph, Hakkarainen's developed an investigative learning (progressive inquiry; "tutkiva oppiminen in Finnish) that has become a cornerstone of Finnish national curriculum [elaborated with K. Lonka; L. Lipponen). The model addressed advanced study skills and fundamental aspects of learning to learn. Deeper levels of understanding cannot be achieved only by assimilating facts; given the changing contents of what students must know (today's knowledge, in its particulars, will be obsolete in two or three years), students have to be guided to generate, seek, and find answers to problems and learn to personally and collectively regulate their learning activity. Numerous investigations have been carried out that guide students from elementary-level to higher education in adopting expert-like question-driven and creative practices of working with knowledge and developing corresponding personal and collective competencies of distributed regulation of learning.

Although Hakkarainen did not have a professorship before 2006, he created his own sustained 10-12 full-time junior and senior researchers' group, completely supported by external research funds across a ten-year span

(Figure 1). Their productions, under his direction, evolved to meet international, scientific standards of the major journals in the field. The center was initially constrained by applied research projects that required production of locally published extensive research reports. Without a peer review, production of thick research reports at *Stage I* did not, however, contribute to the academic record, and publications produced tended, in a few years, to disappear to the "cemeteries of knowledge". External performance requirements pushed the centre to start pursuing full papers for international conferences at *Stage II*; these "who-you-know" publications did not, however, involve peer review beyond a superficial level. Finally, the research community decided, collectively, at *Stage III* to change its knowledge practices so that every full-time doctoral student was required to pursue an article-based thesis consisting of internationally refereed and co-authored journal articles. This transformation was facilitated by participation in a yearly departmental workshop. Collective creativity is involved in *deliberately socializing new cohorts of master and doctoral students directly to the collectively cultivated most advanced publication practices* – without having themselves to go through as difficult and troublesome a developmental process as the initial creators of the collective knowledge practices. Undertaking such an approach, Hakkarainen's students, so to say, jump onto an already moving train, an action that greatly hastens the development of their academic knowledge practices and scientific cognition.
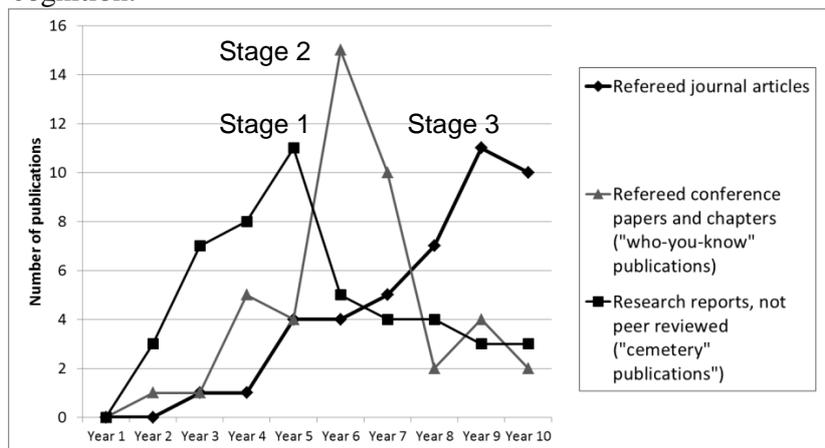
Cultural learning of scientific publication in Hakkarainen's group (Centre for Research of Networked Learning and Knowledge Building, Department of Psychology, University of Helsinki

Doctoral studies completed under Hakkarainen's supervision
1. Lipponen, L. (2001). Computer-supported collaborative learning: from promises to reality. Annales Universitatis Turkuensis, Ser B, tom. 245 humanoira, University of Turku. (co-supervised with Erno Lehtinen) (article-based dissertation)
2. Veermans (os. Rahikainen), M. (2004) Individual differences in computer-supported inquiry learning. Ser B, tom. 272 humanoira, University of Turku. (co-supervised with Sanna Järvelä and Erno Lehtinen). (article-based)
3. Raike, A. (2005) Seekers Building CinemaSense [Production of Collaborative WWW Service]. In Finnish Publication series of University of Industrial Arts and Design Helsinki (UIAH) A 57. (monograph)
4. Paavola, S. (2006). On the origin of ideas: An abductivist approach to discovery. Philosophical Studies from the University of Helsinki 15, University of Helsinki. (co-supervised with Matti Sintonen and Ilkka Niiniluoto). (article-based)
5. Ryymin, E. (2008). Teachers' Intelligent Networks. University of Tampere. (co-supervised with Pekka Ruohotie) (article-based)
6. Lahti, H. (2008). Collaboration in a Virtual Design Studio: Three Design Experiments in Textile Teacher Education. Department of Home Economics and Craft Science Research Reports 17, University of Helsinki. (co-supervised with Pirita Seitamaa-Hakkarainen) (article-based)
7. Minna Lakkala (2010). How to design educational settings to promote collaborative inquiry: Pedagogical infrastructures for technology-enhanced progressive inquiry. Institute of Behavioral Sciences, University of Helsinki (co-supervised with Göte Nyman). (article-based)
8. Vartiainen, L. (2010). Collaborative handicraft: Networks, skills, and shared experiences (in Finnish). Publications of the Eastern Finland. Dissertations in Education, Humanities, and Theology (co-supervised with Pirita Seitamaa-Hakkarainen). (monograph)
9. Muukkonen, H. (2011). Perspectives on knowledge creating inquiry in higher education. Institute of Behavioural Sciences. Studies in Psychology 75: 2011. University of Helsinki. (co-supervised with Göte Nyman). (article-based)
10. Salovaara, Antti (2012). Repurposive appropriation and creative technology use in human-computer interaction. Institute of Behavioural Sciences, University of Helsinki. Studies in Cognitive Science 3:2012. (co-supervised with Antti Oulasvirta). (article-based)
11. Pertti Laine (2013). Developing wellbeing at work: In search for a "good development process" (in Finnish). (Co-supervised with Risto Rinne). (monograph)
12. Vekkaila, Jenna (2014). Doctoral student engagement. Department of Teacher Education, University of Helsinki. Research report 350. (co-supervised with Kirsi Pyhältö and Kirsti Lonka). (article)

13. Kaiju Kangas (2015). The artifact project: Promoting design learning in the elementary classroom. Department of Teacher Education, Faculty of Behavioural Sciences. (Co-supervised with Pirita Seitamaa-Hakkarainen) (article-based)

14. Kari Kosonen (2015). Facilitation of understanding in distributed orientation activity. Institute of Behavioral Sciences. Faculty of Behavioural Sciences. University of Helsinki. (co-supervised with Ritva Engeström) (article-based)

15. Topi Litmanen (2015). Stressful, important and rewarding: How higher education students experience learning at different environments. Institute of Behavioral Sciences. Faculty of Behavioral Sciences. University of Helsinki. (co-supervised with Kirsti Lonka and Laura Hirsto) (article-based)

16. Laamanen, Tarja-Kaarina (April, 2016). Generating and transforming representations in design ideation. Department of Teacher Education, University of Helsinki. (co-supervised with P Seitamaa-Hakkarainen) (article based)

17. Hytönen Kaisa (2016). Bridging academic and working life expertise in continuing professional education: Social network perspective. Department of Teacher Education, University of Turku (co-supervised with Tuire Palonen and Erno Lehtinen). (article based)

18. Mustonen, V. (2018) Challenges of Expertise and Organizational Learning during Digital Transformation of Forensic Fingerprint Investigation. Department of Educational Sciences, University of Helsinki (co-supervised with Juha Tuunainen and Pasi Pohjola) (article-based)

19. Ritella, G. (2018). Chronotope: an investigation of the spatial and temporal organization in technology-mediated collaborative learning. Department of Educational Sciences, University of Helsinki (co-supervised with Beatrice Ligorio and Ritva Engeström) (article based)

Post docs

Dr. Lasse Lipponen 2002-2004; Dr. Hanna Toiviainen 2005-2007, KP-Lab project; Dr. Sami Paavola 2007-2009, philosophy; Dr. Pasi Pohjola (2009-2010, philosophy)

9. Awards, prices and honors
- Awarded the first prize in the educational technology competition of the University of Helsinki for the Future Learning Environment application for Kai Hakkarainen and Hanni Muukkonen 18.12.1999.
- Hakkarainen received recognition from contribution for the development of Italian education (investigative learning framework), 6th of April, 2011.

10. Other academic merits
- Hakkarainen was invited to be member of Finnish Academy of Science and Letter (2016-)

11. Invited, official academic evaluations of the following licenciate (lic) and doctoral (doc) theses:
- Kari Kosonen 2001 (lic); Pauliina Rainio, 2004 (lic); Mika Walls-Carpelan, 2005 (lic); Saara Repo-Kaarento, 2005) (lic); Seppo Tuomivaara, 2000 (doc); Vesa Vuorimaa, 2003 (doc); Jarmo Levonen, 2004 (doc); Donald N. Philip, 2006 (doc); Kirsi Koistinen, 2007 (doc); Timo Portimojärvi, 2007 (doc); Tiina Kalliomäki-Levanto, 2008 (doc); Katri Suhonen, 2008 (doc); Jyri Pesonen, 2010 (doc); Heli Bergström, 2011 (doc); Eeva Kurttila-Matero, 2011) (doc); Rauno Pirinen, 2012) (doc); Tapio Alho, 2015; Inkeri Laaksonen, 2016; Susanna Rahkamo, 2016. He functioned as the academic opponent of Elina Mäntylä's (Department of Education, University of Joensuu 2003), Katri Suhonen's (2008), Henriikka Vartiainen (2014, Department of Teacher Education, University of Eastern Finland), Eeva Liisa Juvonen (University of Eastern Finland); Jonna Kangasoja (academic opponent, University of Aalto)

Scientific evaluation
- Associate editor of **the Journal of the Learning Sciences (JSL)**, 2013-2016. He is currently at editorial board of the following journals: Science & Education; International Journal of Computer-Supported Collaborative Learning; International Journal of Knowledge and Learning (IJKL); International Journal of Technology Enhanced Learning, and many other.
- Hakkarainen has been involved in scientific evaluation for the Academy of Finland, European Community, Finnish Work Environment Fund, Finnish Cultural Foundation, Social Sciences and Humanities Research Council (Canada); and Singapore Learning Lab, He has been invited to assess tenure applications of Tim Koschmann (Southern Illinois University), Jianwei Zhang (University of Albany), Teemu Leinonen (Aalto University 2016. He has functioned in several professor selection committees. Antti-Tuomas Pulkka, assessing docentship, National Defense University 2016, professors of educational psychology (University of Eastern Finland, University of Lapland, 2017); Tenure professorship Kokkola University Consortium Chydenius, University of Jyväskylä (2017)

12. Position of trust in society and other societal merits

- A member of Finnish Matriculation Examination Board (Ylioppilastutkintolautakunta) chairing psychology section, 2013-2016 + 2016-2018.

13. Scientific and societal impact of research

Kai Hakkarainen has produced 82 A1 (original refereed journal articles), 26 A2 (refereed conceptual and review papers in journals), 44 A3 (refereed book chapters), 37 A4 (refereed papers in conference proceedings) publications as well as 3 scientific monographs and numerous research reports. Google Scholar data indicates that he has the highest citation level of Finnish education professors with 10.000 citations and h-index is 46.