

Teaching portfolio

1. Teaching CV: A list of any lecturing and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD) as well as any external examiner tasks.

This Teaching portfolio is an extension to the Teaching-CV I enclosed to my application to the position as an Associate Professor that I current hold: <https://vbn.aau.dk/da/publications/undervisningscv-fra-2007> LECTURING I have lectured on a number of courses at different levels *PhD level* Since 2011: Lectures and facilitating class work on the annual PhD Course: "Ethics and Social Responsibility for Scientists and Engineers in the 21st Century", Aalborg University Copenhagen. Since 2022: Lectures and facilitating class work at the Advanced PhD Course in Philosophy of Technology: Relating Technology to Ethics, Politics, and the Empirical through the Lenses of Postphenomenology and Critical Theory of Technology/Critical Constructivism 2020-2022: Lecturing and facilitating class work at the annual Ph.D. course "Stakeholder and user-involvement in technological innovation and implementation: Theoretical and practical aspects", Aalborg University. 2010: Lectures and facilitating class work on a retreat for Ph.D. students working with topics related to Climate Change PhD Course, "Prepared for social responsibility?" at the University of Kiel. *MSc level* Since 2021: Lecturing and facilitating class work at the course "Reflexive Project Design and Competence Development" at the 3rd semester of the MSc programme in Techno-Anthropology at Aalborg University Copenhagen. 2016-2021: Lecturing, facilitating class work, and oral examination at "Techno-Anthropological Problems and Theories" at the 1st semester of the MSc programme in Techno-Anthropology at Aalborg University Copenhagen. 2014-2015: Lecturing and facilitating class work at "Responsible and Innovative Knowledge Production" at the 1st semester of MSc programme in Techno-Anthropology. *BSc level* Since 2023: Lecturing, facilitating class work and oral examination at "Technology analysis and assessment" at the 2nd semester of BSc programme in Techno-Anthropology. Since 2020: Lecturing, facilitating class work and oral examination at "Ethics and Technological Innovation" at the 5th semester of BSc programme in Techno-Anthropology. Since 2011: Lecturing and (some years) oral examination at "Technology and Ethics" at the 2nd semester of BSc programme in Techno-Anthropology at Aalborg University. 2021-2022: Lecturing and facilitating class work at "Technological knowledge" at the 2nd semester of BSc programme in Techno-Anthropology. 2009-2017: Lecturing, facilitating class work, and oral examination at "Philosophy and Ethics of Science" for engineering students offered by the School of Engineering and Science. 2016: Lecturing at "CSR and Ethics" at the 2nd semester in MA in Communication. 2013 to 2015: Lecturing, facilitating class work, and oral examination at "Interdisciplinary Philosophy of Science" at the 6th semester of BSc programme in Techno-Anthropology. 2015: Lecturing, facilitating class work, and written examination at "Problem Based Learning in Science, Engineering and Society" at the 1th semester of BSc programme in Techno-Anthropology. 2010: Lecturing and facilitating class work at courses "Project pedagogic" and "Learning, pedagogy and communication" at Human Centered Informatics at Aalborg University Copenhagen. 2009 to 2010: Lecturing and facilitating class work at the course "PBL" at Human Centered Informatics at Aalborg University Copenhagen. *Online education* 2022: Filmed lectures "Sustainability". 2021: Filmed lectures and assessment "Introduction to Techno-Anthropology". 2020: Filmed lectures and assessment "Introduction to Techno-Anthropology". *Continuing education* 2008-2009: Lecturing, facilitating class work and oral examination at the course "Climate Change as a Wicked Problem" for professionals who faces complex problems in their daily work at the University of Copenhagen. SUPERVISION I am an experienced supervisor. I have supervised on different levels: post-graduate level (PhD level), graduate level (Master's level), undergraduate level (Bachelor level), and continuing education. *PhD Thesis* I have supervised three PhD students: 2021: Ph.D. student Maria Bach Nielsen (Topic: Trust in AI technologies) 2017: Ph.D. Mushtaque Ali Jariko (Topic: Promoting CSR in a Pakistani Company) 2017: Ph.D. student Nicolas König (Topic: Visual Representations of Ethical Dilemmas in Post-normal Science). *Master's Thesis* I have supervised 22 students' Master's theses in Techno-Anthropology and Learning and Innovational Change (one thesis). The names of the students and the topics of their thesis (indicated in brackets) are listed below. 2021: MSc Baptiste Pagueuau (Topic: Citizen Science and Responsible Research and Innovation as an amplifier). 2021: MSc Rasmus Gammelby Kristensen (Topic: Sustainable transition in Blue Denmark). 2021: MSc Pavlos Chatzipolakis and Christos Georgoulakis (Topic: Rehabilitation technologies in Danish prisons). 2020: MSc Tor Zander Smit and Sebastian Søgård Jensen (Topic: Whistleblowers in Denmark). 2020: MSc Aysha Irgens Salah and Fatima Mohammad Hassan (Entrepreneurial Women of Colour's use of social media). 2019: MSc Britta Nirell (Topic: Analysis of Ethical Imaginaries regarding AI). 2019: MSc Jorge Ivan Contreras Condeño (Topic: Action Research as Technology Assessment approach). 2019: MSc Toni Joseph Abboud (Topic: Post-phenological Technology Assessment). 2019: MSc Fadime Mizrak (Topic: Improving the Welfare Technology Assessment model). 2018: MSc Nhu Mai Huynh (Topic: Merging of Radiographic Units at two Hospitals). 2018: MSc Magnus Frederik Uhre Windekilde (Topic: Interdisciplinary Collaboration in Public IT-megaprojects). 2017: MSc Sana Qureshi, Behar Zozan Atici and Karina Kragh (Topic: Promoting the Culture of Safety at Construction sites). 2017: MSc Line Kim Mee Ok Stenhold and Susan Murphy (Topic: Improvement of an IT portal aimed at empowering unemployed). 2016: MSc Peter Bruus (Topic: Management of breakdowns at a Danish meat production facility). 2015: MSc Mark Hewson (Topic: Becoming an Expert in Pharmaceutical Engineering). 2010: MA Johanne Brander (Topic Problem-Based Learning at Aalborg University). *BSc and MSc level* In addition, I have supervised on the 1st and 3rd semester on the Master's program in Techno-Anthropology (2011 to present) and on the Master's program Learning and Innovational Change (2008 to 2010). I have also supervised on the 1st semester (2012 to 2015), 2nd semester (2021 and onwards), and 6th semester (2014 to 2016) of the Bachelor's program in Techno-Anthropology. *Continuing education* I have supervised three faculty members in "University Pedagogy for Assistant Professors", Aalborg University Copenhagen 2010: Brian Vad Mathiesen (Department of Planning) 2010: Thomas Plough (Department of Communication) 2010: Morten Søndergaard (Department of Communication). In

2010 and 2012 I lectured and conducted oral exams in the course "Power and Ethics" at the "Master of Public Administration" program. CENSORSHIP *External censor* I am / have been a member of three censor corps. I have also assess PhD thesis at two Pakistani universities in action research and qualitative methods: Since 2015: Censor corps for Chemistry. From 2019 and onwards I have act as external censor on the course "Ethics and Science" at elective course at different Master's programs at Aarhus University. Since 2022: Censor corps for Agriculture. Since 2018: Censor of eight PhDs from International Business Administration, University of Sindh, Jamshoro, Pakistan. Since 2019: Censor of two PhDs from the Faculty of Science, Technology and Humanities, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan. 2014-2022: Censor corps for Physics. From 2014 to 2019 I acted as external censor at "Philosophy of Science and Ethics for Physicists" at the BSc programs in Physics, Geophysics and Astronomy at the University of Copenhagen. *Internal censor* I have acted as internal censor on the following semester projects at Aalborg University: Since 2021: 2nd semester on the Bachelor's program in Techno-Anthropology. Since 2011: 1st and 3rd semester on the Master's program in Techno-Anthropology. 2012 to 2015: 1st semester on the Bachelor's program in Techno-Anthropology. 2008 to 2010: 1st and 3rd semester on the Master's program Learning and Innovational Change. On the following course I have been internal censor: Since 2023: "Technology analysis and assessment" at the 2nd semester of the BSc programme in Techno-Anthropology. 2017, and since 2021: "Ethics and Technological Intervention" at the 5th semester of BSc programme in Techno-Anthropology. 2013-2015 and since 2019: "Interdisciplinary Philosophy of Science" at the 6th semester of BSc programme in Techno-Anthropology. 2016-2020: "Techno-Anthropological Problems and Theories" at the 1st semester of MSc programme in Techno-Anthropology. 2015: "Problem Based Learning in Science, Engineering and Society" at the 1th semester of BSc programme in Techno-Anthropology. 2008-2009: "Climate Change as a Wicked Problem" for professionals who faces complex problems in their daily work at the University of Copenhagen. (Continuing education).

2. Study administration: A list of any study administration tasks, e.g. study board membership, head of studies or semester or course coordinator, accreditation, etc.

I have acted as study board chair for 10 years, and set up and established several study programs. I have served as career VIP, program coordinator, semester coordinator and course responsible in different contexts. STUDY BOARDS 2015-2021: Chairman and member, Study Board for Techno-Anthropology and Sustainable Design. Responsible for quality assurance of seven university programs. 2010-2013: Chairman and member, Study Board for Techno-Anthropology. Responsible for establishing B.Sc. and M.Sc. programmes in Techno-Anthropology at two different campuses in Aalborg and Copenhagen. PROGRAM RESPONSIBLE AND CAREER VIP Since 2021: Career VIP for Techno-Anthropology, Copenhagen 2010-2015: Program coordinator for Techno-Anthropology, Copenhagen 2009-2010: Responsible for setting up a satellite campus of Department of Learning and Philosophy, Aalborg University in the Copenhagen area. Starting up a Master's programme in "Learning and Innovational Change." ACCREDITATION 2017-2018: Study board chair participant in one accreditation trail in relation to institutional re-accreditation of Aalborg University. 2015 to 2016: Study board chair participant in four accreditation trails in relation to institutional accreditation of Aalborg University. 2010: I co-wrote the application for establishment of BSc and MSc educational programs in Techno-Anthropology at two campuses. SEMESTER RESPONSIBILITY Since 2021: 2nd semester on the Bachelor's program in Techno-Anthropology, Copenhagen. Since 2021: 3rd semester on the Master's program in Techno-Anthropology, Copenhagen. 2011-2020: 1st semester on the Master's program in Techno-Anthropology, Copenhagen. 2014-2016: 6th semester on the Bachelor's program in Techno-Anthropology, Copenhagen. 2012: 1st semester on the Bachelor's program in Techno-Anthropology, Copenhagen. 2008-2010: 1st and 3rd semester on the Master's program Learning and Innovational Change, Copenhagen. MODULE COORDINATION *PhD level* 2011 to present: The annual PhD Course: "Ethics and Social Responsibility for Scientists and Engineers in the 21st Century", Aalborg University Copenhagen. 2022 to present: "Advanced PhD course in Philosophy of Technology: Relating Technology to Ethics, Politics, and the Empirical through the Lenses of Postphenomenology and Critical Theory of Technology/Critical Constructivism", Aalborg University Copenhagen. 2020 to present: The annual Ph.D. course "Stakeholder and user-involvement in technological innovation and implementation: Theoretical and practical aspects", Aalborg University. 2010: Retreat for Ph.D. students working with topics related to Climate Change PhD Course, "Prepared for social responsibility?" at the University of Kiel. *MSc level* Since 2021: "Reflexive Project Design and Competence Development", at the 3rd semester of MSc programme in Techno-Anthropology at Aalborg University Copenhagen. 2016-2020: "Techno-Anthropological Problems and Theories" at the 1st semester of MSc programme in Techno-Anthropology at Aalborg University Copenhagen. 2014-2015: "Responsible and Innovative Knowledge Production" at the 1st semester of MSc programme in Techno-Anthropology. *BSc level* Since 2023: "Technology analysis and assessment", at the 2nd semester of BSc programme in Techno-Anthropology. Since 2021: "Ethics and Technological Innovation" at the 5th semester of BSc programme in Techno-Anthropology. 2009-2017: "Philosophy and Ethics of Science" for engineering students offered by the School of Engineering and Science. 2013-2015: "Interdisciplinary Philosophy of Science" at the 6th semester of BSc programme in Techno-Anthropology. 2015: "Problem Based Learning in Science, Engineering and Society" at the 1th semester of BSc programme in Techno-Anthropology. 2010: "Project pedagogic" and "Learning, pedagogy and communication" at Human Centered Informatics at Aalborg University Copenhagen. 2009-2010: "PBL" at Human Centered Informatics at Aalborg University Copenhagen. *Online education* 2021: "Enacting RRI in Europe". 2020: "Introduction to Techno-Anthropology". *Continuing education* 2008-2009: "Climate Change as a Wicked Problem" for professionals who faces complex problems in their daily work at the University of Copenhagen.

3. University pedagogy qualifications: A list of any completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance

and supervision, etc.

I have attended a number of pedagogical courses and led three development projects. Courses 2022: Course in Industrial Ph.D. supervision, Copenhagen Business School Executive. 2020: Workshop: Experiences with digitally supported PBL during the Corona lockdown. 2020: Webinar: The perfect chance for you? Examining PBL learning objectives - how to do? 2020: Webinar: PBL-DIGITAL TECH 2019: Workshop on Digital Supported Learning 2018: Course in University Education Management. 2013: Research Management Course, Copenhagen Business School Executive. 2010: Course in Ph.D. supervision, Faculty of Engineering, Science and Medicine, Aalborg University. 2006: Didactic Training Course for Assistant Professors, Faculty of Science, University of Copenhagen. Development projects 2021: PI of the project "Developing the e-course: Enacting RRI in Europe". Financed by the COST Action "EuroScitizen (CA17127)". 2019-2020: PI of the project "Developing the e-course: Techno-Anthropology: An Introduction". 2017-2019: PI of the development project "Promoting interdisciplinary qualification in Techno-Anthropology through Problem-Based Learning".

4. Other qualifications: Conference attendance, editorials, presentations, etc. relating to education, 'University Teaching Day', etc.

Here one can find a full list of my academic activities: <https://vbn.aau.dk/da/persons/104442/activities/> Many of the academic activities are related to university teaching and higher education. A list of my pedagogical competence development in 2021 is available here:

https://vbn.aau.dk/ws/portalfiles/portal/465938622/Pedagogical_Competence_Development_2021_Tom_B_rsen.pdf

5. Teaching activity development and teaching materials: A list of any contributions to the development of new modules, teaching materials, study programmes, e-learning, collaboration with external business partners, etc.

I have developed a long list of course and project modules as well as online education. CURRICULUM DEVELOPMENT 2021: Inclusion of digital learning objectives in the Curriculum of BSc and MSc programs in Techno-Anthropology 2021: Curriculum development of the online course "Enacting RRI in Europe". 2020: Curriculum development of the online course "Introduction to Techno-Anthropology". 2019: Inclusion of PBL learning objectives in the Curriculum of BSc and MSc programs in Techno-Anthropology and Sustainable Design 2015: Head of the committee tasked with a major revision of Curriculum of BSc and MSc programs in Techno-Anthropology 2010: Co-author of the 1st Curriculum of BSc and MSc programs in Techno-Anthropology MODULE DEVELOPMENT *Ph.D. level* • Advanced Ph.D. course on Philosophy of technology: Relating Technology to Ethics, Politics, and the Empirical through the Lenses of Postphenomenology and Critical Theory of Technology/Critical Constructivism. • The annual Ph.D. Course: "Ethics and Social Responsibility for Scientists and Engineers in the 21st Century", Aalborg University Copenhagen. • The annual Ph.D. course "Stakeholder and user-involvement in technological innovation and implementation: Theoretical and practical aspects", Aalborg University. • Retreat for Ph.D. students working with topics related to Climate Change Ph.D. Course, "Prepared for social responsibility?" at the University of Kiel. *MSc level* • "Techno-Anthropological Problems and Theories" at the 1st semester of MSc programme in Techno-Anthropology at Aalborg University Copenhagen. • "Responsible and Innovative Knowledge Production" at the 1st semester of MSc programme in Techno-Anthropology. *BSc level* • "Philosophy and Ethics of Science" for engineering students offered by the School of Engineering and Science. • "Interdisciplinary Philosophy of Science" at the 6th semester of BSc programme in Techno-Anthropology. • "Ethics and Technological Intervention" at the 5th semester of BSc programme in Techno-Anthropology. • "Technology and Ethics" at the 2nd semester of BSc programme in Techno-Anthropology at Aalborg University. • "Problem Based Learning in Science, Engineering and Society" at the 1th semester of BSc programme in Techno-Anthropology. • "Techno-Science" at the 1th semester of BSc programme in Techno-Anthropology. • "Project pedagogic" and "Learning, pedagogy and communication" at Human Centered Informatics at Aalborg University Copenhagen. • "PBL" at Human Centered Informatics at Aalborg University Copenhagen. *Online education* I have co-developed the e-courses "Enacting RRI in Europe": www.en.plan.aau.dk/rri and "Introduction to Techno-Anthropology": <https://forskning.moodle.aau.dk/course/view.php?id=50>. During the Corona lockdown in the spring of 2020, I taught and supervised online. In the fall of 2020, I streamed my teaching so that it ran physically and online. *Continuing education* • "Climate Change as a Wicked Problem" for professionals who face complex problems in their daily work at the University of Copenhagen. *Teaching materials* I frequently use my academic writings in my teaching. Here you can find a full list of my research publications: <https://vbn.aau.dk/da/persons/104442/publications/>

6. Teaching awards you may have received or been nominated for.

2016 Teacher of the years. Study Board for Techno-Anthropology: "Vi studerende i studienævnet har valgt at Tom Børsen fortjener titlen som årets underviser på baggrund af det store engagement han ilægger undervisningen og sit altid gode humør. Tom er en inspirerende underviser som formår at skabe en god dynamik i undervisningslokalet hvor han får de studerende til at føle at de er blevet hørt og taget alvorligt. Han har skabt en tryghed og respekt i undervisningslokalet der gør at de studerende tør komme med undrende spørgsmål og udvise stor nysgerrighed for faget. Undervisningsmaterialet har været udfordrende pga. det høje faglige niveau hvilket ikke skal menes negativt idet det har styrket de studerendes viden og kompetencer i faget. Han har nemlig formået at gøre et ellers komplekst stof forståeligt og anvendeligt da undervisningsmaterialet er gået op i en højere mening i undervisningen. Undervisningsplanlægningen har været struktureret fremragende da det har skinnet igennem at der er progression i logisk rækkefølge for emne og materiale igennem forelæsningerne samtidig med at målene for forelæsningerne er blevet opstillet, gennemført og evalueret. Tom er

desuden indstillet for sin ekstraordinære indsats som formand i studienævnet." Mvh. Marlene Storkborg, Næstformand i Studienævnet. 2015 Teacher of the years. Study Board for Techno-Anthropology: "Hermed resultatet af Årets Underviser 2015. De studerende i studienævnet diskuterede længe frem og tilbage og vi er nået frem til at prisen går til Tom Børsen. Tom har fået prisen fordi han både som underviser og nu også som studienævnetsformand lægger rigtig meget energi og tid i Teknoantropologi og han kæmper for tiden hårdt for at uddannelsen lever op til de forventninger der er til den. Måden han gør dette på er i AAU ånden hvor han inddrager alle stemmer for at sørge for at vi bliver den hybrid som vi ønsker at være." Venlig hilsen, Sara Bach Wolthers. Stud. rep. i studienævnet

7. Personal reflections and initiatives: Here you may state any personal deliberations as regards teaching and supervision, any wishes and plans for further pedagogic development, plans for following up on feedback/evaluations from students, etc.

CASE STUDIES Running through my Teaching portfolio I notice that I have worked extensively with case studies. Many of the courses I have designed, managed and taught have centred around case studies to illustrate and highlight theoretical concepts, relations and assumptions that are situated in a concrete context: General theoretical entities are enacted in the concrete, and illustrate the principle of exemplarity that stands central in Problem Based Learning. These four courses illustrate well the case based approach: • "Techno-Anthropological Problems and Theories" at the 1st semester of MSC programme in Techno-Anthropology at Aalborg University Copenhagen. • "Philosophy and Ethics of Science" for engineering students offered by the School of Engineering and Science. • "Interdisciplinary Philosophy of Science" at the 6th semester of BSc programme in Techno-Anthropology. • "Techno-Science" at the 1th semester of BSc programme in Techno-Anthropology. RELATIONS BETWEEN RESEARCH AND TEACHING /SUPERVISION I am focussed on bridging the potential divide between my research and my teaching. I tend to use my own research papers in conjunction with 'classic' texts in my teaching. I have authored texts and edited books on different aspects of Techno-Anthropology – a study-program I co-invented more than 10 years ago – that I use to open up students' understanding of this interdisciplinary discipline. Examples are: • Botin, L., & Børsen, T. (2021). Technology Assessment in Techno-Anthropological Perspective. Aalborg University Press • Børsen, T., & Botin, L. (red.) (2013). What is Techno-Anthropology? Aalborg University Press). I have written case studies I have used in the case based courses mentioned above: • Eckerman, I., & Børsen, T. (2018). Corporate and Governmental Responsibilities for Preventing Chemical Disasters: Lessons from Bhopal. Hyle - International Journal for Philosophy of Chemistry, 24(1), 29-53. <http://www.hyle.org/journal/issues/24-1/eckerman.htm>; • Børsen, T., & Nielsen, S. N. (2017). Applying an Ethical Judgment Model to the Case of DDT. Hyle - International Journal for Philosophy of Chemistry, 23(1), 5-27. [23]. <http://hyle.org/journal/issues/23-1/boersen.pdf>). I encourage the Master's and PhD students I supervise to write research papers with me based on our common research. The combination of my experience with academic publication and their project work is a fruitful combination that has resulted in several publications. Examples are: • Laubjerg, A. L., Klærke-Olesen, A. L., Nielsen-Hannerup, J., Larsen, K. K., Lofstad, R. I., & Børsen, T. (2021). A Contemporary Framework for Assessing Welfare Technologies: Unfolding an Assessment Model Developed by the Danish Technological Institute. I L. Botin, & T. Børsen (red.), Technology Assessment in Techno-Anthropological Perspective Aalborg University Press; • Børsen, T., Karadechev, P. A., & Contreras-Cardeno, J. I. (2020). Engaging students and professionals in ethical reflections on new and emerging information and communication technologies. I J. Meijer-Lentelink (red.), Proceeding from the 48th SEFI Annual Conference (pp. 628-639). SEFI: European Association for Engineering Education; • Steenhold, L. K. M. O., & Børsen, T. H. (2020). Fra Adfærdsstyrende Kontrol til Individuel Digital Mediering: Kritisk teknologiteoretisk analyse af dagpengesystemets digitale ressourcer. Tidsskriftet Antropologi). DIGITALISATION OF HIGHER EDUCATION In 2020, I was PI on a development project aimed at developing the online course "Introduction to Techno-Anthropology". The target group of the project was bachelor students who did not know Techno-Anthropology from their bachelor program making it easier for them to decide if the Master's program in Techno-Anthropology the right choice for them. This E-course introduce the participants to some of the key theoretical and methodological topics of Techno-Anthropology. The course is organised in an introduction followed by 7 modules. Each module includes mandatory academic literature, video-lectures as well as quizzes and writing exercises. In the end, course participants will have all the tools to formulate a motivation letter to become eligible to the Master's program in Techno-Anthropology. To enroll in the course, one needs to send an e-mail to Introt-a@plan.aau.dk with the subject Enrol me. Next, one will receive a link to the course and further instructions. I appear as expert in two of the modules (Introduction to Techno-Anthropology and Module 5: Responsible Technological Innovation).

8. Any other information or comments.

I am an experienced supervisor and lecturer. I have supervised and lectured on different levels: post-graduate level (PhD level), graduate level (Master's level), undergraduate level (Bachelor level), online education and continuing education. I am / have been a member of three censor corps and have in addition assess eight PhD theses as well as acted as internal censor on several project and course modules. I have acted as study board chair for 10 years and set up and established several study programs, course / project modules and online courses. I have served as career VIP, program coordinator, semester coordinator and course responsible in different contexts. I have attended several pedagogical courses, led three development projects, and I developed a long list of course and project modules as well as online education.