

Teaching Statement

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Most of the courses I teach are still in Software Engineering, especially modeling and agile software development, but I am slowly acquiring teaching experience in my other research areas of Distributed Systems and Information Systems. I have taught the introduction to programming at the RWTH Aachen and would feel confident to teach other introductory courses like courses on various programming languages, algorithmics, or database design.

I designed and taught two new lectures for the University of Tartu: software architecture and systems modeling. I am contributing to courses in Software Engineering, Distributed Systems, and Introduction to Computer Science. In Software Engineering, I teach the classes concerning requirements engineering and modeling (especially UML and Objects-First design with Fujaba); in Distributed Systems, I teach sessions on Desktop Cycle harvesting using my own development: Friend-to-Friend (F2F) Computing. In addition, I have taught several seminars with a strong focus on improving the academic presentation and writing skills. These seminars involve several peer and instructor feedback cycles.

I consider advising a part of my teaching duties and a very attractive bridge between teaching and research. I have a very strong supervision record and a great amount of students dropping in on a regular basis to discuss their thesis work or to look for new challenging problems. While working at the University of Tartu, I have increased the number of students writing their thesis on a topic related to our group from an average of three students to more than six per year.

I prefer active learning methods to pure lecture style courses. Using paper for drawing sketches and collaborative design, laptops for hands-on demos, and web research are common elements of my classes. I always try to develop my classes from specific examples and scenarios and transport this way of thinking to my students. I usually embed a cumulative course project such as a simple database with front-end, a game, or an industry project, which leads to very impressive results from the students.

Not only do I enjoy teaching, but I work hard to continue to develop myself as an effective instructor. Most recently, I have been involved in two courses to further develop my teaching skills: a semester-long course on active learning as well as a four-day seminar on supervision. These courses along with opportunities to supervise and teach not only make me a reflective and active practitioner but also a sharper and stronger researcher.

In Tartu, I spent a lot of time on team building activities. In my opinion, in an academic context where IT specialists are trained, there has to be taught both programming skills as well as teamwork and communication skills. As there are issues with communication and collaboration in a team of Estonian students, I developed a collaboration and communication-facilitating game “Mullivelled” in collaboration with three colleagues from various disciplines. The game frame has three phases: playing alone, playing with random team members, and playing with a real collaborating team. We published a paper¹ about this game and presented it at the ISAGA 2008 conference. The development of this idea continues through a new research project called “Orchestration of Educational Computer Game Environments”. Mullivelled is now used at the cultural institute of Viljandi, Estonia as a reference for team building games.

I enjoy traveling and the exposure to and interaction with a diversity of cultures. Splitting my time between the U.S. and Estonia as a German expatriate has given me insights into a spectrum of different ways to teach and research. For me, teaching is a lot about passion and transporting passion to students or colleagues. I enjoy shaping new courses, redesigning existing courses, and discussing teaching with colleagues.

¹ Ulrich Norbistrath, Ivar Männamaa, Anne Villems, Külli Kalamees-Pani : *Mullivelled - Wrapping Computer Games into Educational Gaming Environments*. Games: virtual world and reality, selected papers of International Gaming and Simulation Association Conference (ISAGA 2008, July 2008), Editors: E.Bagdonas & I.Patasiene. Technologija, Kaunas/Lithuania 2009