DAT315. Aim and Scope

Professionals educated in Computer Science (CS) or in any other field are specialists. But not only that! We also have a role in society, and this raises questions beyond the purely scientific and technical aspects of the field.

- We have to communicate about many details: specify goals, problems and assumptions as clearly as possible, explain methods and solutions to others, read or listen and try to understand the main points, ask clear questions, etc. Without technical communication, even the best ideas would never reach the point where they change reality and make a difference. Here we cannot possibly address all aspects of technical communication, but we will focus on **scientific writing**. Briefly: **What makes a good report?** Here the focus is not on training the written English (except that obvious language errors may be pointed out in passing), but on **proper scientific argumentation** within the field.

- Many generic questions deal with ethics. While **technical questions** are of the type **"What can we do, and how?"**, the **ethical questions** are of the type **"What should we do, and why?"** Surely, everyone has intuitive feelings about ethics. But ethical questions become more tricky if the issues are not on the surface, or if they are more complex, or if they involve an ethical dilemma.

- We will also combine these two themes and learn about **publication ethics**: What is allowed in technical and scientific reports and what is not, and for what reasons?

Why is it important for specialists to care about the context of a technology? As an example (exaggerated, to make the point), imagine car traffic without any regulations. It would cause accidents all the time, while the technology itself is exactly the same as in car traffic with regulations ...

In the ethics part we will study some questions like these: What are specific ethical issues in CS? On which basis can we approach them more systematically? Are there even formal criteria for right conduct? Once more, this is about **analysis and argumentation**, and not about uttering some quick opinions or commonplace statements like "every technology can also be misused".

At the same time this is also intended to be a substantial CS course. We will develop these generic skills and awareness with the help of examples, such as influential CS articles and recent material. You will have to survey CS topics of your choice in written form, thereby discussing disciplinary knowledge connected with the needs of society. Thus, as a side effect you may also learn about some CS subjects that may not appear in other, special-topic courses. As for ethics examples, we limit attention to ethical questions related to the study programme contents.