Informatics and society in German computer sciences bachelor courses

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To shape technologies in accordance with human values and needs it is necessary to claim human values and needs as requirements of technology. Therefore, it is essential that the requirements engineers educated in the elicitation, analyse and evaluate conflicts in values and needs. To do so there are a variety of concepts like the Ethical Guidelines of the German Informatics Society (https://gi.de/ethicalguidelines) or the ACM code of ethics and professional conduct (https://www.acm.org/binaries/content/assets/membership/images2/fac-stu-poster-code.pdf). But how do his concepts spread into the world, i e. into the heads of requirements engineers?

The German Informatics Society describes as interdisciplinary basic competence informatics and society in the recommendations for the curriculum for bachelor courses in computer sciences. These recommendations include to teach basic concepts of privacy, measures to protect personal data, basic concepts of copyright versus open culture, basic concepts of computer criminal law, main features of information economy and their implications on information systems, main features of ethic of computer professionals. In this recommendations sustainability and environmental aspects are missing.

In Germany there are one hundred and eight universities and universities of applied science who have courses in computer sciences (German: Informatik) graduating with a bachelor. Most of them have courses in human compute interaction, and also courses in it-security and privacy. Sixty-one of these institutions offer no courses in informatics and society. Two institutions offer courses in ethic as a minor. In twelve institutions these courses are part of the studium generale. Fifteen Institutions offers an elective module. For students of twelve institutions informatics and society is mandatory and vary between lecture and seminar. In three institutions informatics and society is part of the introductory lecture. One institution teach informatics and society as part of the master study. And for one institution it was not possible to find out.

This shows that it is necessary to implement informatics and society in sixty-two bachelor courses. Furthermore, it is desirable to have a more homogeneously structure in the subject. To have a broader commitment that informatics and society is mandatory can be the basis for a more standardized module description.

Beyond that maybe the responsibility against the various stakeholders and the analysis and evaluation of this dilemmas can be part of courses in software engineering like it is show in examples.

Also teaching of sustainability is getting more important, and with University of applied science Ulm and university Würzburg there are good examples of how to do this.