Taking Responsibility as Computer Science Professionals

I am thrilled to welcome you to the Spring 2020 issue of *XRDS*. In this issue, we are going to focus on people. The people using the computerized systems we computer science professionals design, develop, and maintain. More specifically, we are going to look at the multiple ways in which the use of computer systems shapes healthcare professionals' day-to-day work.

Within the last 10 years, computer systems have established themselves as the main information management and communication tool between healthcare professionals and between healthcare professionals and their pa-tients. As a result, computer systems have become a huge part of health-care work, as you will see throughout this issue.

You may wonder why we are dedicating a full issue to end users and how this is supposed to support you in developing your skills as a computer science professional. Well, I believe we creators of technology have a responsibility toward our end users and society as a whole, to ensure the systems we provide are truly supportive and, all in all, good for everyone. Computer scientists do not yet have to take an oath to "do no harm," but considering the power and influence we have on millions—billions—of people, including the workers who have to use computer systems several hours every day to accomplish work tasks, I believe we should take responsibility.

Taking responsibility means first recognizing the huge impact our work has on the lives of others. We need to acknowledge the way we design our computerized systems has an impact of people's daily activities, as well as on their physical and mental well-being. I am thinking about phenomena such as technology addiction, musculoskeletal disorders, and cognitive overload, to name a few. The direct and indirect effects our systems bring about have the power to alter people's live—both private and professional— sometimes for the better, but also often for the worse.

Second, taking responsibility is studying the multiple ways in which computer systems affect people and shape their (work) lives. As well as recognizing that some of these effects will be predictable and expected,

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while others will be unanticipated and undesired—in some cases even harmful. This is the main focus of this issue. We have assembled a collection of articles that will enable you to dive into the day-to-day lives of healthcare professionals in different roles and settings, uncovering what it is like and what it entails to depend on computerized systems to manage information in this work domain.

Third, taking responsibility is determining a (new) way forward. I hope, while reading this issue, you will let yourself wonder is this how we want to have it? Is this the work environment we want to provide healthcare professionals? What can we keep, and what must we change in order to ensure the best possible working conditions for healthcare professionals—and for all other employees required to use computerized systems at work? In other words: How can we use our powers for the better, while forearming ourselves (to the best of our abilities) against the harmful effects of computer use?

Finally, taking responsibility is taking steps in order to make things better. This is probably the trickiest thing to do, as it requires us to negotiate with other work groups and organizations in order to make our voices heard. To see our user-centered values and desire to "do no harm" being adopted by our actual customers, those who usually hire us to develop a system—namely managers. Although we are the ones putting the technology together, it is true we often are not the ones deciding what the technology should do or look like, at least not entirely. Rather, we are given a list of requirements, and it is up to us to create a system that fulfills these requirements. In such a situation, we may come to feel like the responsibility of ensuring a good fit between people (employees) and technology does not lie with us, but with "them," the managers. But I disagree. As we are the experts in our domain, I argue it is our role, maybe even our duty, to set boundaries where they are necessary, to guide our customers in making choices that will benefit both individuals and society. We are more than just "instruments" in the hands of more powerful entities. We can have agency, if we choose to claim it. Recently, some have done just that. I am thinking of a developer who deleted his code after learning it was used to separate migrant families at the U.S. border [1]. We create tools that have the power to shape society as a whole. It had better be for good.

Before letting you get started with your reading, I would like to, as always, give a shout-out to those who have spent the last few months putting this issue together. Magdalena Stadin, a Ph.D. candidate whose research focuses on managerial stress associated with ICT demands at work, has guest edited this issue with me and even contributed an article. As I am really impressed by her research, I am very happy and grateful that she accepted our invitation to guest edit this issue. A warm thank you also to Sainyam Galhotra, the *XRDS* editor who has been working behind the scenes to coordinate the making of this issue.

References

[1] Cox, J. 'Everyone should have a moral code' says developer who deleted code sold to ICE. *Vice* [Sept. 20, 2019]; https://www.vice.com/en_us/article/mbm3xn/chef-sugar-author-deletes-code-sold-to-ice-immigration-customs-enforcement.

—*Diane Golay*