Chapter 35
Teaching Human–Computer Interaction in the Capital of Culture

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ABSTRACT

Human–Computer Interaction (HCI) is an essential field, yet so hard to describe. It encompasses so many disciplines from design to software engineering. Teaching HCI is an even bigger challenge, especially when it is only part of another course. Therefore, in this chapter a framework is proposed for teaching HCI based on the “double diamond” design methodology, coupled with a paradigm for experiential learning. This methodology is illustrated within a case study by students of Media Communication who participated in a course entitled Ubiquitous Systems for Media.

INTRODUCTION

The city of Maribor, Slovenia (together with Guimarães, Portugal) officially became a European Capital of Culture (ECOC) at the beginning of 2012. The project dubbed “Maribor 2012” had begun some years before the official ceremony, with a multidisciplinary team crafting an ambitious plan on how to revive cultural ecology within the region. Maribor, along with five other partner cities (Murska Sobota, Velenje, Ptuj, Novo Mesto, and Slovenj Gradec) was to become the temporal and cultural epicenter of Europe. Whilst a team of artists and producers worked on the outlines of the cultural program, others were busy tinkering with ways to disseminate information, promote the
participation of visitors and the local community, and establish an acceptable bridge between events and the local environment. They foresaw this bridge as being in the form of a highly interactive web-platform accompanied by other interactive contact-points (mobile applications, interactive information kiosk, etc.) as well as with conventional techniques (information-points, brochures, advertising, etc.).

Meanwhile a different discourse was taking place at the University of Maribor within a group of MA students from the Media Communication Department. Ubiquitous Computing is a class originally meant for computer science and informatics students with basic to moderate knowledge of programming. Therefore, the original emphasis was on development, high-fidelity prototypes, and practical work. On the other hand, media-communication students often lack programming skills and are instead better equipped regarding social science, media, and design skills. The challenge was how to redesign the course to fit these students. This challenge was thus transformed into an opportunity for restructuring the course and placing more emphasis on high-level informatics, namely human-computer interaction (HCI), with the focus on user-centered design approaches.

Two sets of challenges emerged within the same city. On the one hand, we had the ECOC wanting to a) design and disseminate attractive interactive content and b) actively engage with the local community. On the other hand, the University believed that students a) needed to practice and gain knowledge of HCI and b) work on actual, real-life problems to gain real-life experience. The ECOC with its diverse and rich program was hence an ideal theme for presenting to students as an assignment. When completed properly students would learn how to design with the user in mind, learn the basics of HCI whilst working on real-life challenges within the ECOC. At the same time, Maribor and its ECOC team would establish collaboration with the local youth.

This paper illustrates the chosen approach and the interaction between students and the ECOC. It tends to answer the question of student motivation for work as well as their engagement in the local community. And more than anything it illustrates our methodology for teaching HCI to students, one that is based on experiential learning human-centered design. We start with brief introductions of both the ECOC and the Ubicomp for the Media studies. It also looks at the state and practice of HCI teaching, and concludes with a departmental case-study that covers two years of teaching a Ubicomp course to MA students. Throughout these two years the course, and especially the practical part, was redesigned with a focus-shift from implementation to ideation and problem-solving, and from prototyping and technical implementation towards understanding.

**ECOC: An Invitation to Participate**

The ECOC project was born out of an idea by the Greek and French Culture Ministers back in 1985. Since then, every year a city has been chosen by the Commission of the European Union and given this title for the period of one year. The Commission soon discovered that being selected as the Capital of Culture significantly impacts a city itself, and boosts its development and transformation (European Commission, 2012). The benefits are multifaceted as the cultural events usually result in further development of the city itself and its recognition throughout the region. The obvious benefits are the flow of tourists and the funding of cultural and structural projects. The city of Maribor was given the ECOC title because it needed a boost to transform itself from a former industrial city to a university city with a vibrant culture. The Commission obviously saw the potential of the city and region, which could then benefit from international exposure.

The city of Maribor with its 95,000 citizens is the second city of Slovenia, situated in the northeast of the country close to the Austrian border,
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