Finding Common Ground: Interdisciplinary Workshops For Interaction Design Education

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Abstract

Interaction Design is a fast-growing and still evolving field which blurs the boundaries between creative disciplines. Practitioners employ a broad range of approaches and techniques, often working in ad hoc multidisciplinary teams for a given project. In this paper we examine some of the approaches to Interaction Design practice and education, and discuss our experience of running a series of open, interdisciplinary workshops for students and practitioners in Croatia and Slovenia.

Introduction

Interaction Design operates within a rapidly-changing industrial context. It is one of the fastest-growing areas of design[i], while also being a very fluid field which is still rapidly evolving. At the same time design practice in general is becoming increasingly collaborative and multidisciplinary.

The Cox Review of Creativity in Business[ii] highlighted the need for graduates in the UK to have more interdisciplinary experiences. This concurs with statements from organisations such as the Design Council, the Bureau of European Design Associations (BEDA), and the Royal Academy of Engineering, which have recently expressed the need for more "diagonal thinkers" who can move comfortably and rapidly between conventional disciplinary boundaries. Moreover, BEDA believe future designers will need to be able to collaborate and co-operate with many people from various disciplines who each may hold widely different perspectives on how, what and why things should be done.

This paper looks at Interaction Design education in this changing context. After describing Interaction Design as a hybrid, evolving, multidisciplinary practice we go on to look at some approaches for teaching and learning which respond to this. We then discuss two particular workshops which we conducted in 2009, in Slovenia and Croatia, for a range of students and practitioners in the region, coming from various disciplines.

Interaction Design Practice

A new generation of hybrid practitioners is emerging, suggesting a blurring of boundaries between traditional disciplines[iii]. In the UK at least, the likes of Troika, Jason Bruges Studios, Crispin Jones, Greyworld and Moritz Waldemeyer are leading the way, away from a fixed notion of Interaction Design and towards a more general "interactive architecture/design/art".

Some of these are individual practitioners with multi-disciplinary backgrounds – for example Crispin Jones's background was in fine art sculpture before studying Computer-Related Design. Others such as Jason Bruges Studio work as interdisciplinary teams, while Troika – who describe themselves as a "multidisciplinary art and design studio" – represent a mix of the two, comprising a team with varying backgrounds in product design/engineering and graphic design/visual communication.

While multidisciplinary teams are common in design practice, they are far less common in educational contexts, particularly in universities and colleges where "the subject 'silos' make collaboration more difficult"[iv]. The Cox Review and related initiatives mean that this is starting to be addressed to some extent within the curriculum. But in order to be more responsive, and to establish Interaction Design as a new field in regions where it is not yet represented, it may also be useful to teach multidisciplinary design subjects, such as Interaction Design, in a context outside of traditional educational structures.

Interaction Design presents something of a conundrum when talking about disciplinarity, in that there's no universal agreement on what the term actually means. Whereas at one time a definition such as "designing interactive products, services and systems" or "user interface design" might have been more or less sufficient, the field itself has continued to evolve and expand, broadening its remit in looking at the relationships between people, technology and society, and becoming more nebulous in the process. Furthermore, many practitioners and researchers have adopted a Critical Design approach[v] which sets them apart from design for manufacture and consumption, and so to some extent changes the relationship with the profession.

Tools and techniques have also matured, and what might once have been considered "core" Interaction Design has now become common practice in areas such as Product Design, Industrial Design and Interactive Media Design. Meanwhile newer fields (or at least newer terms) have sprung up within, around, or overlapping with, Interaction Design: User Experience Design, Information Architecture, Service Design, and so on.

To confound matters further, the meanings of most of these terms will vary depending on their context: whether you're reading a college prospectus, a job advertisement or a marketing brochure; whether you're talking to a prospective client or an industry magazine.

To take Jason Bruges Studio as an example, Bruges has described his practice as working at the intersection of art, architecture and interaction design, and statues that "it is often more about personality and a mixture of skills, rather than any particular discipline"[vi]. He has also said that not being "pigeon-holed" is useful, as it allows you more freedom and flexibility in a project, for example if choosing to sell your services as an "artist" rather than an "architect"[vii]. When dealing with the question "what do you do?", Bruges says he often finds it simpler to talk about the kinds of projects and commissions they get, or about the materials and techniques they use, or simply to show some images of particular outcomes[viii] – thereby avoiding the notion of discipline or genre completely.

Interaction Design Education

Practically speaking, approaches to teaching Interaction Design differ. If we are to specify a core curriculum, then we need a clear idea of what the core skills and knowledge might be, and some working definition of Interaction Design as a discipline. On the other hand, if we consider it to be a broad field with a growing multitude of possible skills, tools and approaches, which are way in excess of what any one student could take on board in a programme of study, then an alternative approach might be to allow students to follow their own path by exploring a sub-set of these. Clearly there's a long tradition of design schools having their own interpretations of the skills, knowledge and values required to enter a certain field, and having a distinctive vision can be an advantage when competing for applicants.

In comparing the ethos and methods of taught postgraduate programmes in New York City design schools, Alex Wright gives contrasting examples of these two approaches[ix]. The new MFA in Interaction Design[x] at the School of Visual Arts (SVA), founded by author and graphic designer Steven Heller, took in its first cohort in August 2009. The two-year programme is heavily industry-focused, and all tutors on the course are also practitioners. The curriculum includes design fundamentals such as prototyping and communication design, as well as broader subjects such as ethics and cybernetics.

Nearby, New York University's Interactive Telecommunications Programme[xi] (ITP), which has been running for 30 years, adopts an entirely different approach.   A popular two-year graduate programme with over 200 students, the structure encourages personal exploration through a very broad range of possible subjects, and deliberately avoids the agenda being set by industry. Faculty member Dan O'Sullivan points out that "students have to pick up a lot of easily marketable skills even if they are not found directly in the curriculum"[xii].

As well as varying views in what the focus of the student experience should be, opinions also differ on what the basis of an interaction design education should be. On researching "user requirements" for the SVA programme, Heller notes that "the biggest surprise was how little graphic design was even considered in the hiring of interaction 'people'".[xiii]

Hardly surprising that Heller considers graphic design to be fundamental, perhaps, but on the other side, Andy Polaine, lecturer at Hochschule Luzern in Switzerland, has said he thinks Interaction Design "has much more to do with Product Design and Architecture than it has to do with Graphic Design".[xiv] Interestingly, Polaine himself comes from a screen-based design background, was co-founder of new media studio Antirom in 1994, and worked at interactive agency Razorfish in the 1990s.

These types of polarised views are not uncommon, and perhaps reflect the current *de facto* state of Interaction Design education, in that students typically come to it at post-graduate level, as graduates from a more traditional design (or art) discipline.

This seems to mirror a similar situation in practice, in that many interaction designers have come from a background in a different discipline. We found some evidence of this at the Interaction Design Symposium held in Split, Croatia in March 2009[xv], directly before the workshop described below. In a rapid poll of twelve European researchers, practitioners and lecturers present, all of whom are currently active in Interaction Design, only one had taken it as a degree. The rest had studied artificial intelligence,

jewellery design, graphics and film-making, fashion design, ceramics, physics and industrial design, stonemasonry, psychology, computer engineering, communication science and physical ergonomics.

Discussions at this event also covered modes of delivery, with some (broadly, from a design background) favouring a studio-based approach and others (science or engineering background) preferring lectures. Again we noted that there's no "one size fits all" solution, and that delivery of programmes will probably reflect the local ethos.

After examining these broader issues, we now move on to look specifically at a series of Interaction Design workshops we have organised and delivered.

Interdisciplinary Workshops for Interaction Design Education

After initial inspiration from a Convivio summer school[xvi] in 2004, each year since 2007 the Arts Academy in Split, Croatia, has been running open Interaction Design workshops for students throughout this region, where there is no tradition of this field.

Overall goals of the workshops are:

- to promote Interaction Design to students and the public in this region
- to promote design as a different way of thinking
- to help students to gain new insights and new knowledge
- to help students to become better and reflective designers
- to create new opportunities for future collaboration in the region

By inviting students from a range of disciplines and universities, we have aimed to give participants experience of:

- multidisciplinary group working
- interaction design methods
- critical and socially-responsible design
- state of the art digital and new technologies
- realistic professional practice

We also encouraged participants to go beyond the limits of design definitions, and to re-think what Design is today.

The workshops are delivered by a mixture of academics and practitioners (in Design, people are often both anyway), and a user-centred design process is emphasised, along with issues of social responsibility, and the role of Design in relating to, and empowering local communities.

In 2009 for the first time we also ran a similar workshop in Slovenia, which was open to both practitioners and students. Both these workshop series are on-going and have also had successful outcomes in 2010, which at the time of writing have just finished.

Next we discuss the two 2009 events.

Case Study: Split 2009

Twenty-six students from Rijeka, Split, Zadar and Zagreb (Croatia) attended the residential Interaction Design Workshop held at the University of Split's Arts Academy, 23-28 March 2009. Students were predominantly undergraduates, studying on a broad range of topics relevant to interaction design: architecture, design, computer science/HCI, applied arts, film and video, art education, and sociology/anthropology. This was the fourth in an annual series of workshops which is proving very popular, with some students returning year after year.

Students were split into two atelier groups, one led by Chris Hand and the other by Marc Owens, an independent designer based in London. Detailed documentation for the workshop and its outcomes can be found on its website.[xvii]

In the context of construction of the new Arts Academy building at the University of Split, the overall theme of the workshop was how new technologies could improve learning via interaction processes.   The brief given to Chris's group was titled "Technology-enhanced learning and the rediscovery of the physical", focusing on the opportunities for introducing physicality into a space dominated by screen-based Virtual Learning Environments.   As current students, many of them from the Arts Academy themselves, and all working within the current design department during the workshop, a major source of inspiration for the projects was their reflections on their personal experiences and the environment they were in formed.

This atelier group began with background research, personal reflection, brainstorming and identifying and discussing key issues, which by the end of day 2 had been developed into 8 potential themes for projects. Day 3 was focused on moving from general themes to more detailed concepts, through brain-storming, body-storming/role-playing and considering detailed scenarios. By the end of this day, two concepts had been agreed through a vote, and by combining two of the themes into one.   Members of the atelier then formed two teams, one of 5 people and one of 8, each working on a different concept.

Fig 1: Group Brainstorming Session

Building and testing was planned for day 4. The smaller group worked intensely and moved forwards quickly, while it slowly became clear that the larger group were making no progress at all. After a lengthy and somewhat painful trouble-shooting session it appeared that lack of clarity and consensus around the concept was the problem – the earlier step of combining two themes into one had effectively resulted in two competing teams within the group, trying to take the concept in two incompatible directions. Reluctantly the larger group agreed that the only way to move forward at this late stage was to split back into two teams, one of which then revisited a different theme from earlier in the week, since by this stage they had a revised concept which seemed to fit well with this.

For all three of these groups, once everyone was clear on the concept and how they would realise it, then everyone could be assigned a task to work on and progress was rapid. This underlined how important it is for everyone in the team to have a shared vision of what the concept means and where they would take it.

As the workshop was relatively short, the emphasis was kept mainly on concept development. A range of rapid visualisation techniques was used in communicating the final outcomes, including paper prototyping, film-making, model-making, storyboarding and some basic electronics for mock-ups.

On the sixth and final day, each sub-group from the two ateliers presented their final outcomes in a range of formats, including video, screen-based and physical mock-ups, paper prototypes, and performance. Students also produced a poster summarising the outcomes, available on the project website.

Some of the issues we ran into in the earlier stages of concept development related to some students being heavily focused on technological aspects, and not considering user needs or the wider context of the technology. One of the outcomes – a tongue-in-cheek proposal for a technologically-augmented public toilet – was a direct and critical

response to this when students realised how the process being technology-driven was preventing the concept from developing fully. Ultimately all students in this atelier appreciated the importance of being user-centred early in the design process, having seen first-hand what can happen when designers focus on technology instead.

Case Study: Maribor 2009

The *Brain Working!* workshop (14-21 May 2009) was the first Interaction Design event in Slovenia, and took place in Maribor as part of the 11th International Festival of Creative Communication – Magdalena 2009. Seventeen participants with broad and diverse backgrounds, hailing from Slovenia, Croatia, Bosnia and Herzegovina, Italy and Serbia, worked together for eight days. The workshop was documented by the participants via a project blog.[xviii]

Again, participants were split into two groups, one led by Michael Smyth and the other by Erik Sandelin and Magnus Torstensson, founders of the Unsworn Industries interaction design and innovation studio in Malmö, Sweden.

Michael's initial brief was entitled "Embodied Vision" and raised questions such as: What opportunities reside in the urban environment to engage, provoke and intrigue us and thereby stimulate our brains? How can spaces be re-appropriated to become different places? How might the urban environment be augmented with information and how might this be personalised?

This atelier group consisted of 8 students with a variety of backgrounds and expertise that included product design, architecture and human computer interaction.

The initial work of the group was characterised by background research and brainstorming with the purpose of identifying the issues that were felt to relate to the brief. After this initial phase it became apparent that the students had to familiarise themselves with the local environment, in terms of the geography, architecture and people. This was an important decision, to undertake an observational phase early in the design process, as it connected the ideas of the group to the location of the eventual intervention. The students worked in pairs for the observation phase of the work and on return the group began to discuss their findings. This was a very fruitful point in the development of the work and it prompted a number of ideas for possible interventions.

A recurring theme of this phase of the work was that of boundaries. In particular, how they connect people, places and ideas. Such points raise questions for interaction designers in terms of both process and outcome. Sometimes boundaries are explicit but more often they are implicit and unseen, simply routes that connect places or destinations, often travelled but seldom acknowledged. The Old Drava Bridge over the river in Maribor (Fig. 2) is one such place – silently connecting the city, but central to the heart of the people and so it was entirely appropriate the bridge became the focus for a piece of work undertaken as part of the Magdalena Festival in May 2009.
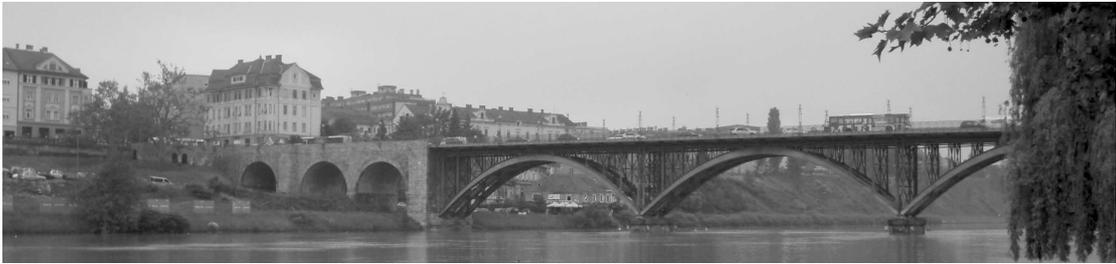
Fig. 2: The Old Drava Bridge, Maribor

Once the decision had been made to concentrate on the bridge this gave a focus to the group – on days 4 and 5 the students observed peoples' behaviour as they crossed the bridge and how this varied at different times of the day. Increasingly the group became aware of just how important the bridge was to the people of Maribor, both in terms of its history but also how it connects the town and its inhabitants.

A decision was made to create a site-specific intervention on the bridge. At each end of the bridge people were provided with digital cameras and asked to take a photograph while they crossed the bridge. Suddenly crossing the bridge became a different experience, the act of taking photographs facilitated chance meetings, exchanged glances and made everyday routines a little more memorable and special.

Fig. 3: Crossing the Bridge

The camera acted as a lens through which people viewed the city and its population. By making the process of taking a picture explicit, participants were made to question and reflect on their choice of image and what it meant to them as an individual and as a citizen of Maribor.

On the evening of Day 6 of the project The Old Bridge was re-appropriated as a gallery to exhibit the pictures taken during the previous 2 days. People who had taken photographs returned and walked the bridge to admire the work of the people of

Maribor and perhaps hope to see their own contribution. For just a few days the experience of the journey was changed, so something that people do throughout the year – crossing the bridge – was just a little different, somehow more joyful.

Key elements in the success of the project were:

- The interaction design workshop was part of a larger festival of creative communication. This made the town's population more receptive to the idea of using the bridge as an impromptu gallery space.
- The decision to focus on the bridge was a critical decision in the design process.
- The physical location of the workshop in an old water tower adjacent to the bridge was important as it provided both a proximity to the town and its inhabitants but also allowed privacy to work.

Conclusions: Finding Common Ground

In reflecting on the workshops mentioned above, and on the series as a whole, we can summarise some of our findings under the theme "Common Ground".

Firstly, common vision. Participants recognised the importance of a shared vision and understanding of the concept being developed, and shared understanding of the processes involved.

Inevitably there are clashes and differences of opinion, but students learn that this is part of the process, and it's clear that those students who have attended multiple workshops are the most comfortable with this, or at least understand how frustrating it can be.

Secondly, the ground which is in common with users. Students recognise that they need to work to understand context in a design problem, to research and share users' experiences and to understand their needs and values.

Thirdly, the common ground which is newly created when coming together as an *ad hoc team* from different disciplines. Shared recognition of values as designers (e.g. user-centred, socially responsible), shared language, and the importance of communication in the design process. Coming from a variety of backgrounds, students recognise that each has their own specific skills and knowledge to contribute. Teamwork is essential.

A notable feature of the workshops described above has been the continued development of communities of practice surrounding Interaction Design. It is our hope that these communities will shape the nature of how the field is both taught and practiced by a new generation of designers.

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