Dialogues in interaction design: complexity, hybridity and the relationship between research and practice

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Abstract
A brief overview of the field of Interaction Design is provided in order to contextualise the Create10 conference. The conference was held at Edinburgh Napier University in June/July 2010 and attracted over 120 delegates. The papers that comprise this special edition of Digital Creativity reflect aspects of the debates that took place both within the main conference and in the work exhibited at the Student Design Exhibition. Both Fallman and Stolterman and Edmonds explore the need for, and possible sources of, theoretical underpinnings in Interaction Design. While Kettley, Downes, Harrigan and Glazzard and Speed emphasise the importance of ‘learning through doing’ as a means of better understanding the process of design and the nature of user engagement.

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Interaction design
Interaction design is a nascent discipline that is operating in a rapidly changing context. As a fusion of technology and the humanities and of aesthetics and culture, it concerns the design of both the services novel technologies can offer, and the quality and meaning of our interactive experience. Interaction design is one of the most rapidly growing areas of design (Design Council, 2007), it is also a fluid field that is continually evolving. These factors are heightened by design practice in general becoming increasingly collaborative and multidisciplinary.

Given this context it is no surprise that Interaction Design presents something of a conundrum when talking about disciplinarity, in that there is
no universal agreement on what the term actually means (Hand et al., 2010). Workers in the field of Human Computer Interaction (HCI) have gradually shifted their focus from ‘user interface design’ to the broader remit of ‘the relationships between people, technology and society’. From industry a similar move is evident with yesterday’s usability consultants morphing into today’s user experience professionals.

A similar situation can be seen in the field of design. As products and services become ever more complex with the integration of technology, product designers are faced with the challenge of integrating form and function into artefacts that provide a meaningful emotional experience for the consumer. As if this were not difficult enough more products are becoming immaterial, raising the question of whether this experience is increasingly about the process of consumption of this new generation of products. Paradoxically, as more designs lose their physical form, there is a growing trend to move from the pixilated world of the screen out into the physical world of the urban environment. In the UK this is best seen in the work of Jason Bruges Studios, Greyworld and Moritz Waldemeyer who are leading the way towards a more general notion of interactive architecture/design/art and away from a more artificially fixed notion of interaction design.

Device art, as exemplified by the work of Maywa Denki, questions the relationship between the consumption of art and design and how this has impacted on working practices. The growth of ‘one off’ pieces and site-specific interactive installations shifts the focus of interest to what Dunne and Raby have characterised as a move from ‘mass production’ to ‘mass communication’ while being interviewed as part of Objectified, a film by Gary Hustwit (2009). Indeed, the critical design approach (Dunne, 1999) where design acts as a catalyst or provocation for thought is becoming increasingly popular among researchers and practitioners.

When it comes to interaction design, what is clear is that nothing is really clear. However, what is certain is that practitioners are active in this field, and it is equally certain that researchers and commentators are thinking and writing about interaction design. A pertinent question now is where these various communities can meet and learn from each other and, in the process, shed light on the field of interaction design.

**Create10—The Interaction Design Conference**

Since 2007 the Create conference has sought to provide a forum for debate in the field of interaction design. The continued support of both the Institute of Ergonomics and Human Factors and the British Computer Society, explicitly acknowledged the multi-disciplinary nature of the subject matter from the outset, has seen the London-based conference grow progressively each year. The Create conference centres on interaction design and attracts practitioners and researchers from fields such as HCI, ergonomics, product and graphic design, multimedia and art. In 2010, for the first time, the conference moved outside London and was hosted by the Centre for Interaction Design at Edinburgh Napier University. The conference ran from 30 June to 2 July 2010 and was managed by a programme team from Edinburgh Napier University, Huddersfield University and the University of Dundee. To reflect the move north, the theme of the event was ‘Transitions: analogue to digital; research to practice; place to time or real to virtual’. The result was an event that expanded from a two-day single track event to a three-day event with several tracks and themes, the conference grew in size, confidence and reputation, with over 120 delegates.

Keynote presentations from well regarded academics and internationally recognised designers provided the basis for each day’s theme. The conference was opened by Mika Tuomola (Aalto University, Helsinki) who gave a fascinating presentation about the design of interactive television programmes. He included insights into how the whole process of writing, acting, producing and broadcasting has to be reconfigured to make the most of the changes that interactivity brings to
this medium. In the afternoon several short, tracked sessions explored a range of sub-themes ranging across theory to practice, emotion, applications and methods, creative process, and prototyping and envisionment.

On day two the focus was on design and design practice in particular. A superb presentation from Jason Bruges (Jason Bruges Studios, London), which outlined the environmental and public artworks that his studio is engaged in around London, Leicester and Poole, set the tone for a fascinating day where industry practitioners and researchers explored approaches to interaction design education, institutional research and real world practice. A plenary discussion opened up this debate further in the afternoon culminating in the realisation that both researchers and practitioners, while operating in radically different arenas and timescales, need to find better ways to work more closely together to benefit from each others strengths and experience.

The morning of day three concentrated on the role of art and artistic practice as a way of exploring creativity in interaction design. A keynote from Ernest Edmonds (University of Technology, Sydney) highlighted the long and delicate history of the emergence of creativity research, from HCI interventions like the mouse and the Dynabook, to present day equivalents in the form of the iPad and full body interaction. He presented the idea that explorations of creative interactions through novel artistic investigations not only provided insights into the creative practices of artists using new technologies as their medium but also provided models for new forms of interaction. Further presentations around this theme explored novel ways in which interaction designers are either being creative themselves or designing tools to support creativity.

Complementing the academic papers were invited case studies of innovative design from the commercial, academic, public and research sectors. Student submissions were particularly encouraged and the conference aimed at providing a supportive environment that would give the opportunity to showcase and discuss both finished work and work in progress. Interaction designers possess creative skills from both the arts and sciences. For the conference organizing committee, this offered an interesting challenge. How best to schedule a conference that appeals to those with deep technical interests as well as those with more artistic perspectives and who may come from academic or practitioner based backgrounds. The relationship between theory and practice is central to a meaningful discourse within the field of interaction design. It is vital that each does not occur in isolation and to support such interplay, Create10 ran a Student Design Exhibition as part of the conference. Working to a brief set around the topic of ‘Transitions’, students were asked to submit work with the opportunity of showcasing it in Inspace, an exhibition and gallery space in Edinburgh.

In April 2010 a jury of design practitioners met to select 10 pieces from a total of over 60 submissions. The jury consisted of Dr Shaleph O’Neill, Exhibition & Student Competition Chair (University of Dundee), Mark Daniels, curator at Inspace, Anab Jain, designer and a TED Fellow, Crispin Jones, product designer, Di Mainstone, designer of wearable installations and Christopher Pearson, motion graphics and 3D designer. The selected student work was developed and exhibited alongside work from the jury members. The exhibition opened on the first evening of the conference and ran for a further 10 days. The student work exhibited was as follows: Amble Ramble—Priyanka Gaitonde, Figure 1(a), Central St Martins College of Art and Design; Audio Tea-Tray, For one Around the World—Aimee Flint, Edinburgh College of Art; Burl-Audio—Helen Fisher, Edinburgh College of Art; Wheel Stories—Anthony Otten, Liverpool John Moores University; Escape the Cube—Stephen West, Liverpool John Moores University; InterSprint—Michael Kemp, Liverpool John Moores University; Chatter—Mie Sorrenson, University of Newport; For Those who See—Daniel Shulze, UDK Berlin; and Social mixing project—FionnTynan-O’Mahony, Edinburgh College of Art. The jurors who exhibited work alongside the students were as follows: TenguAllstars Choir—Crispin Jones;
Serendiptichord—Di Mainstone; and Puffershere animation—Christopher Pearson. The opening night of the exhibition was attended by over 100 conference delegates and the event was opened by Andrew Dixon, the Chief Executive of Creative Scotland.

The four papers selected for this special edition of *Digital Creativity* reflect the different aspects of the debate around interaction design that took place at Create10. In the paper by Fallman and Stolterman entitled ‘Establishing criteria of rigor and relevance in interaction design research’ the authors argue that within the field of interaction design, notions of rigour and relevance should be examined in the light of three distinct research activities namely design practice, design exploration and design studies. The authors conclude with the statement that the ‘burden of exploring as well as imposing notions of rigor and relevance falls on the field itself . . . and that our yardsticks thus cannot simply be borrowed from other fields’.

In a similar vein, albeit from a different perspective, Edmonds in his paper called ‘The art of interaction’, presents HCI methods as a lens through which to view the making of interactive art. Audience engagement is discussed as being of central concern to the interactive artist and critically how this impacts directly on the making process. The paper argues that HCI methods suggest ways of observing audience response to interactive works, but the key step, Edmonds argues, is the incorporation of HCI research into the interactive art making process. Indeed, it is only through such work that the nature of engagement can be unpacked and a language can develop with which to discuss the characteristics of interactive artworks, the intentions of artists and the reactions of audiences.

The development of a common language was also a theme explored by Kettley, Downes, Harrigan and Glazzard in their paper entitled ‘Fit for purpose? Pattern cutting and seams in wearable development’. The paper explores the development of working practices within a multi-disciplinary team during a project that incorporated stretch sensor fibres into a series of garments. The authors argue that central to the collaborative work was the embodied nature of the making process which, in turn, invites an embodied response from the viewer. Both are exploratory in nature and both create meaning through action.

The final paper in this special edition, by Chris Speed, explores our relationship with objects in the context of the ‘Internet of Things’. By drawing on a series of examples from advertising, film and fine art, Speed argues that as consumers we are always orientated towards the future, and this has the effect of disconnecting us from artefacts in our past. The paper describes a project entitled ‘Remember Me’ in which a combination of RFID tags and two dimensional bar codes were used to record narratives associated with articles for sale in a charity shop. The work sought to question the traditional production and

Figure 1. (a) Amble Ramble [left]. (b) Serendiptichord (foreground) and Chatter (background) [right].
consumption path and in contrast to highlight the value of the ‘memory economy’ and the importance of the past in shaping our futures.

A theme that characterised Create10 was ‘learning through doing’ and this is echoed in the papers that comprise this special edition of Digital Creativity. It is only through an appreciation of the process of creating interactive products and services that we can begin to understand the meaning of the engagement experienced by the user or audience. Central to this comprehension is a strong relationship between research and practice built on the mutual respect for the contribution that each makes to the field of interaction design. This relationship has been characterised by Jack Schulze of BERG London, when he stated that ‘No-one cares about what you think, unless you do what you think. No-one cares about what you do, unless you think about what you do.’ It is our hope that the Create conference has taken the first steps to providing a language through which this dialogue can take place.

References


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