
Balancing Interaction Design

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ABSTRACT

Over the last two decades, creative, lean and strategic design approaches have become increasingly prevalent in the development of interactive technologies, but tensions exist with longer established approaches such as human factors engineering and user-centered design. These tensions can be harnessed productively by first giving equal status in principle to creative, business and agile engineering practices, and then supporting this with flexible critical approaches and resources that can balance and integrate across a range of multidisciplinary design practices.

CCS CONCEPTS

• **Human-centered computing~Interaction design theory, concepts and paradigms**

KEYWORDS

Creative Design; Agile development; Lean development; Interaction Design; Worth Focused Design; Balanced Integrated Generous (BIG) Design.

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1 OVERVIEW

Interaction Design must serve several masters: users, stakeholders, customers, approvers, technical platforms, creative trends and other factors. Single centred responses to challenge this are inherently unbalanced. Being solely user-centred, design-led, outcome-focused or data-driven impoverishes design work. Current attempts at combining strategic, creative and human-centred approaches such as Lean UX [12] can be overly constraining, as

can design workshops such as Google Ventures Sprints [14]. This course complements existing Agile, Lean, User-Centred and Design Thinking repertoires with an integrated set of approaches, including support for the critical reflective practices that enable balance and integration in design [6,8].

2 BENEFITS

As a result of attending this course, attendees will gain

- Knowledge about disciplinary differences between creative, strategic, technical and human perspectives on interactive software (and in particular, understand the roles of critical reflection in creative practices).
- Knowledge of strategies and approaches for applying and integrating diverse perspectives within a dynamic development process (in particular, creative [7,9,10,13] and worth-focused [1,2,3,4,5] perspectives in Agile and Lean [11,12]),
- New perspectives on design work that support reflection on balance and integration, rather than following prescribed processes [6,7,8,15].
- A broader and deeper understanding of creative design work [7,9,10,13] and its effective management.

3 INTENDED AUDIENCE

This course is aimed at broad, open minded, agile and curious practitioners, educators and researchers in creative design, software development and interactive technologies who want to understand creative and worth-focused approaches to Interaction Design, both in research and practice, as a basis for reviewing, extending and balancing their existing practices and introducing design process innovations. This is a fast paced studio based course that asks for agility and stamina from attendees.

4 PREREQUISITES

There are no formal pre-requisites. Attendees should ideally have experience of several design/development projects from initiation to completion, mastery of an existing discipline (e.g., computing, creative design, engineering, marketing, innovation strategy) and awareness of others. Most important is a willingness to have existing positions and values challenged, to try out new challenging approaches with attendees from diverse backgrounds, and to discuss your initial experiences with these new approaches.

8 PRESENTER BACKGROUND

Gilbert Cockton is Professor of Design Theory in the School of Design at Northumbria University in Newcastle upon Tyne. He has previously been a head of department and associate dean for research and innovation.

From 1997-2009, he was Research Chair in HCI at the University of Sunderland, where he was the recipient of a UK NESTA Fellowship on Value-Centred Design. Work during this fellowship moved his research from the design end of computing to the computing end of design, extending the variety in a career that has blended education, academic research, childcare, design, consultancy, work for and within business and public sectors, directing large regional economic development projects, and professional service.

A Fellow of the UK Royal Society for the Arts, he has published extensively since 1985, with over 250 papers, chapters, books, articles and edited proceedings and over 150 invited presentations in 23 countries, on usability, user-experience and accessibility, theoretical and empirical inputs to design and evaluation, the nature of design work, and notations and architectures for interactive software.

He was scientific co-ordinator for the 26 country European TwinTide network (2009-2013) on transferability of software design and evaluation approaches. He has secured funding for research and knowledge transfer projects and infrastructure with a value of over \$7M. He has contributed to the supervision or examination of around 90 research students in 8 countries.

(continued)

5 CONTENT

Attendees will learn about disciplinary differences between creative, technical and human perspectives, as well as strategies for integrating them. The course will systematically introduce, integrate and exploit:

- Creative, agile, lean, engineering and human-centered design practices: origins, similarities and differences; results of ‘research into design’ studies; design arenas and design paradigms
- The concept of worth as a strategic focus for design purpose, its implications for design practice, and supporting approaches and resources [1,2,3,4,5]
- Alloying worth-foci within existing user-centred resources such as personas, scenarios and empirical evaluation
- Rich use cases for integrating technical, creative, experiential and strategic aspects of design [5]
- Worth sketches and worth maps [2,4]
- Collaborative creativity methods, using 6-3-5 Brainwriting as a practical hands-on example
- Approaches to design tracking and reflection, using design arena canvases as a hands-on example [8]

6 PRACTICAL WORK

- Collaborative brainwriting and design arena canvas exercises as inputs to a worth sketch that will be extended in response to insights arising during further exercises
- Group exercise that builds rich use cases to create and extend a worth sketch for a web service (design arena integration)
- Group reflection and discussion on successes and difficulties during practical exercises, and formation of a multi-arena work plan to extend design work from the course.
- Plenary discussion of directing and integrating concurrent work streams in Interaction Design.

7 RESOURCES

Publications and further information can be found at

- northumbria.academia.edu/GilbertCockton
- scholar.google.co.uk/citations?user=t_c8oKIAAAAJ
- www2.le.ac.uk/departments/computer-science/people/elaw/HCI-3T

Several videos of Gilbert’s presentations can be easily found on the web.

Gilbert is co-editor in chief of ACM Interactions magazine and has served in many roles within the international HCI community, including Vice-Chair of IFIP TC13 (2004-06), Chair of British HCI Group (2001-2004), Chair of ACM CHI 2003 and BCS HCI 2000 Conferences, and Secretary of IFIP WG2.7 on user interface engineering (1993-99). He is Editor Emeritus of Interacting with Computers, a member of the editorial boards of PACM EICS, Quality and User Experience, the Journal of Usability Studies, and Springer series on HCI and on Design Research Foundations. He has advised national projects in Japan, Finland and Poland. His first career was teaching in a high school. Education remains his first passion.

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