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# Balanced Interaction Design

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**Abstract**

Over the last two decades, creative, agile, 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 a range of multidisciplinary design practices.

**Author Keywords**

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

**ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

**Overview**

Interaction Design has to serve several masters: users, stakeholders, customers, approvers, technical platforms, creative trends and other factors. Single centred responses to this challenge are inherently unbalanced. Being user-centred, design-led, outcome-focused or data-driven alone impoverishes design work.

Approaches such as Lean UX [11] aim to integrate a balance of human-centred design, business and development approaches. Design workshops such as Google Ventures Sprints [12] use a fixed structure to integrate user-centred, design and evaluation practices. However, approaches can be overly constraining [12] or lack support for complex design work [11]. This course complements existing Agile, Lean, User-Centred and Design Thinking repertoires with an integrated set of approaches, including support for reflective practices that enable balance and integration in design work.

### 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 reflection in creative practices)
- Knowledge of strategies and approaches for applying and integrating diverse perspectives within a dynamic development process (in particular, creative and worth-focused perspectives in Agile/Lean)
- New perspectives on design work that support reflection on balance and integration, rather than following prescribed processes.
- A broader and deeper understanding of design work and design management

### 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.

### 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.

### 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 different design paradigms
- The concept of *worth* as a strategic focus for design purpose, its implications for design practice, and supporting approaches and resources
- Adding worth-foci to existing user-centred approaches such as personas, scenarios and empirical evaluation

- Rich use cases for integrating technical, creative, experiential and strategic aspects of design
- Worth sketches and worth maps
- Collaborative creativity methods, using 6-3-5 Brainwriting as a practical hands-on example
- Individual creativity methods, using mind-mapping as a practical hands-on example

### Practical Work

- Collaborative brainwriting and mind mapping exercises as input 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.

### Presenter Background

Gilbert Cockton is Professor of Design Theory in the School of Design at Northumbria University in Newcastle upon Tyne, where he leads the university multidisciplinary IDEATE design research theme, having 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 almost 250 papers, chapters, books, articles and edited proceedings and almost 150 invited presentations in 22 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 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 almost 100 research students in 8 countries.

He 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.

## Resources

Publications and further information can be found at

- [northumbria.academia.edu/GilbertCockton](http://northumbria.academia.edu/GilbertCockton)
- [scholar.google.co.uk/citations?user=t\\_c8oKIAAAA](https://scholar.google.co.uk/citations?user=t_c8oKIAAAA)
- [www.nordichi2016.org/program/tutorials](http://www.nordichi2016.org/program/tutorials)
- [www2.le.ac.uk/departments/computer-science/people/elaw/HCI-3T](http://www2.le.ac.uk/departments/computer-science/people/elaw/HCI-3T)
- <https://www.northumbria.ac.uk/about-us/our-staff/c/gilbert-cockton/>

## Relevant Publications

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2. Gilbert Cockton. Designing Worth: Connecting Preferred Means with Probable Ends, interactions, 15(4), July+August issue, 54-57, 2008.
3. Gilbert Cockton. When and Why Feelings and Impressions Matter in Interaction Design. Kansei 2009: Interfejs Użytkownika - Kansei w praktyce. 2009. Invited Keynote.
4. Gilbert Cockton, Sari Kujala, Piia Nurkka, and Taneli Hölttä. Supporting Worth Mapping with Sentence Completion in Proceedings of INTERACT 2009, Part II, (LNCS 5727), Springer, 566-581. 2009.
5. Gilbert Cockton. Making Designing Worth Worth Designing. Position Paper, CHI 2012 Workshop: Methods for Accounting for Values in Human-Centered Computing. [ii.tudelft.nl/ValuesInDesign/submissions/cockton.pdf](http://ii.tudelft.nl/ValuesInDesign/submissions/cockton.pdf)
6. Gilbert Cockton. Diffusion of Worth Mapping: The Worth of Resource Functions. CHI 2013 Workshop: Made for Sharing: HCI Stories of Transfer, Triumph & Tragedy. 2013.
7. Gilbert Cockton. Design isn't a shape and it hasn't got a centre: thinking BIG about post-centric interaction design. Proc. MIDI '13. ACM, Article 2, 16 pages. 2013, DOI=10.1145/2500342.2500344. Invited Keynote Address
8. Gilbert Cockton. You (have to) Design Design, Co-Design Included. Mareis, C., Held, M., and Joost, G. (eds): Wer gestaltet die Gestaltung? Praxis, Theorie und Geschichte des partizipatorischen Designs. Bielefeld: transcript. 181-205. 2011. Invited workshop summary.
9. Gilbert Cockton. A Critical, Creative UX Community: CLUF. Journal of Usability Studies, 10(1), 1-16. 2014. (Invited Editorial, available at <http://uxpajournal.org/a-critical-creative-ux-community-cluf/>)
10. Igor Garnik, Marcin Sikorski, and Gilbert Cockton. Creative sprints: an unplanned broad agile evaluation and redesign process. Proc. NordiCHI '14. ACM, 1125-1130, 2014.
11. Jeff Gothelf with Josh Seiden. 2013. Lean UX: Applying Lean Principles to Improve User Experience. O'Reilly.
12. Jake Knapp, John Zeratsky and Braden Kowitz. 2016. Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days. Simon & Schuster.
13. Alan Woolrych, Kasper Hornbæk, Erik Frøkjær and Gilbert Cockton. Ingredients and Meals Rather Than Recipes: a Proposal for Research that Does Not Treat Usability Evaluation Methods as Indivisible Wholes, in IHCI, 27(10), 940-970, 2011.