THE CHANGING INNOVATION LANDSCAPE: CHALLENGES FOR COLLABORATIVE DESIGN

ICED17
CHAIRS: IAN WHITFIELD AND AVRIL THOMSON
Monday 21st August 2017 – 9:30 to 12:30 - Room 2314
Workshop Team

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Collaborative Design SIG

To support and build the community of collaborative design researchers and initiate a collaborative design research agenda.
Substantial benefits can be achieved (from better supporting collaborative design):

- Efficiency improvements
- Elimination of rework
- Improved complexity management
- Automation of parts of the collaborative design process
What are the challenges of collaborative design?

Current collaborative design research provides incremental, disciplinary improvements, and has not been holistically investigated to generate the breakthrough required.
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<td>Overview of the changing innovation landscape</td>
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<td>Group Discussion</td>
<td>What are the challenges in harnessing the changing innovation landscape to achieve maximum benefit for collaborative design?</td>
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Organisations have an increased importance to adapt and advance collaboration practices in design in order to survive and flourish.

What is the changing innovation landscape?
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Technological advancements have the potential and an expectation to enable agile collaboration and new possibilities for innovation.
What is the changing innovation landscape?

The characteristics present complex and contradictory challenges to conventional industrial practice and confounds the benefits gained from wide-spread implementation.
Characteristics of the changing innovation landscape

- Rapid creation and articulation of viewpoints
- Faster construction of networks
- Democratisation of the product or service development process
- Discontinuous and open innovation
- Creating new business models and markets
- Adoption of dynamic capabilities to sustain competitive advantage
What the changing innovation landscape could mean?

• Some industrial practices may be ill equipped to replicate these benefits in a collaborative environment:
  • Collaborative endeavours fail due to obstacles in sharing knowledge
  • Difficulty in coordinating stakeholders
Characteristics of the changing innovation landscape

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How might we approach this problem?

Equip the next generation of engineers with a skillset to address the challenges and complex contradictions presented by the innovation landscape.
Enables agile systems connectivity and communication.

But, to fully realise industry 4.0 we must investigate how our design activities fit?
Distributed manufacturing

Potential to facilitate the rollout of distributed manufacturing.

How do we ensure quality control with a wide and fast rollout.
Knowledge capture and dissemination

With a greater reliance on technology our systems must support connectedness and access to information.
Eclipse Break

Please return for 10:35
Brief Introductions

• Name
• Affiliation
• Background

Please keep to maximum 30 seconds.
Open Discussion

How can we harness the changing innovation to achieve maximum benefit for collaborative design?
What are the challenges towards achieving a new innovation landscape?

1. Discuss in your group(s) – 10 minutes.
2. List your challenges – 10 minutes.
3. Prioritise three most important challenges to share with the group – 10 minutes.
Theme the challenges

Select a challenge and add it to the wall.

If you have anything which relates to this challenge add it alongside.
How can we address these challenges through research?
Concluding remarks
COLLABORATIVE DESIGN EDUCATION

CHAIRS: ROSS BRISCO & BRYAN HOWELL
Today at 2pm - Room 2314
Thanks for Coming

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