Design for a dynamic world

If design thinking is making, being creative, visualising and linking into human needs ...... then we have probably been design thinking for nearly 2,000,000 years

University of St Andrews -15th May 2019

Professor Tom Inns
Design Facilitation:
Mapping - Strategy - Innovation - Training

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tfink*
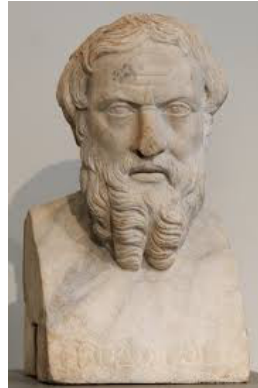ideas with depth & breadth

Humans have always been:

Makers

'humans have always felt the urge to make things more sophisticated than they need to be. Objects carry powerful messages about their makers'

Neil MacGregor 2010
Hand Axe 2.0 million bc

Creatives

Persians deliberated important matters when they were drunk, then when they were sober. If a decision held in both states it was approved.

Herodotus 484-425 bc

Visualisers

Polymaths like Maria Merian used visualisation approcahes to develop scientific insights

Maria Merian
1647 - 1717

Innovators

Josiah Wedgwood positioned design, marketing and production as separate business functions.

Josiah Wedgwood
1730 - 1795

What changes all the time is the context within which creativity is practised

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Apple

Apple is synonymous with design

Common design language throughout products, online, services, finance, packaging and shops

Apple

The Danish Design Ladder

Developed to illustrate the variation in the use of design within business *(Danish Design Council, 2002)*

Level 4

Design as strategy
Design is a key element in the business model of the organisation

Level 3

Design as process
Design is an integrated element in development processes

Level 2

Design as form-giving
Design is used as a finish, form-giving, or styling in new products & services

Level 1

Non-Design
Design is not applied systematically

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Design is not applied systematically

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Design as strategy
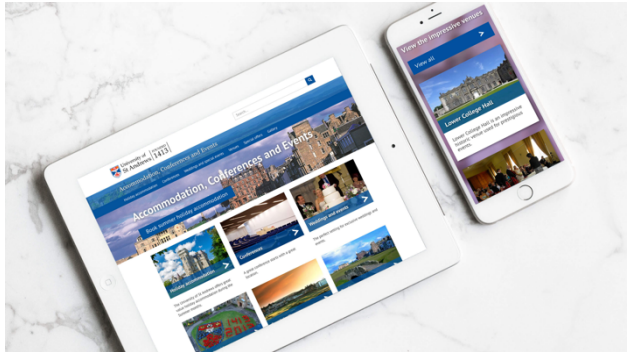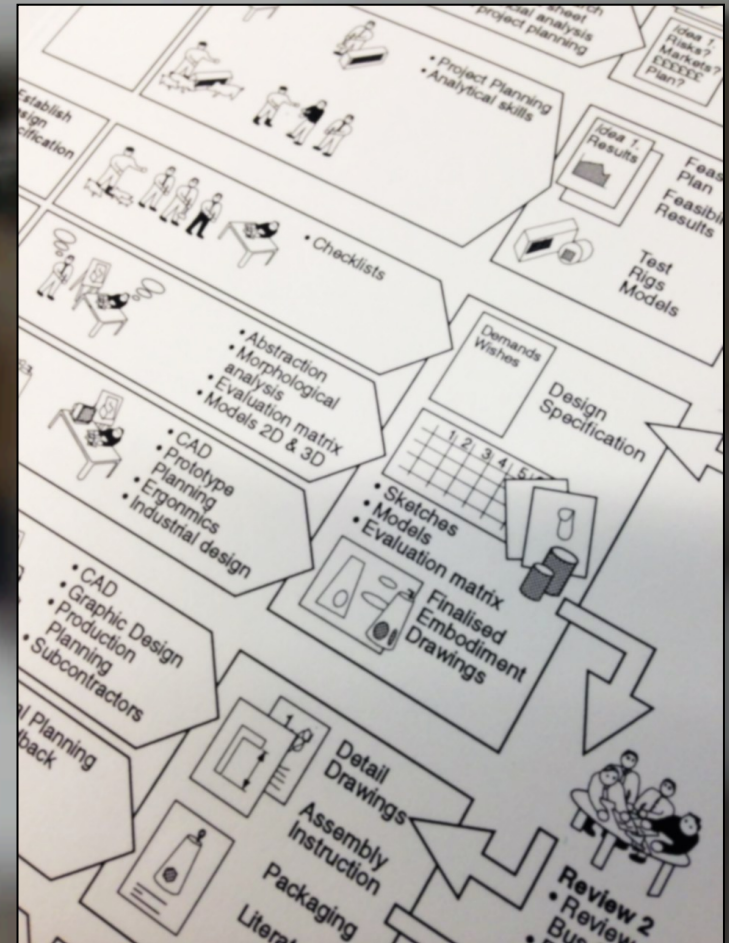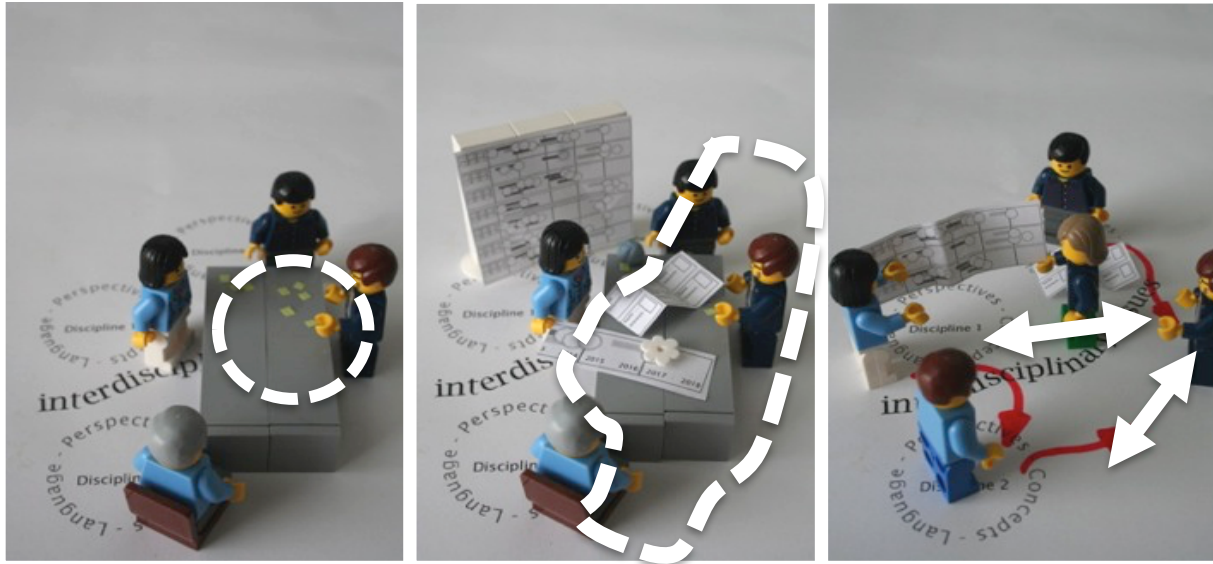Design is a key element in the business model of the organisation

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Understanding design beyond the physical

PhD: 1992-1997
Brunel University
The impact of the designer on innovation in small businesses

DESIGN's visual approach, methods & processes support:

- Effective team communication
- Senior management engagement
- Structured thinking
- Up front planning
- Customer connections
- Strategic Planning

All proven drivers of successful product development
(Robert G Cooper & Elko Kleinshmidt, 1980s & 1990s)

Practice AWARENESS able behaviour
Application experience work making others PHYSICAL
Ideas thinking Visualising iterative techniques
visual design mental people many Visualisation
solutions Methods knowledge across
disciplines
problem modelling testing Rapid together
PROBLEMS Prototyping Bring
open Skills users communication different
Data Mapping
process Articulation tangible complex theory ability approach
observation
groups

41 Research Projects Across the UK Looking at different aspects of designing in the 21st Century

Designing for the 21st Century
Initiative Director *2005 – 2010*

- View of the Child: Design of Schools
- Food Design (Heston Blumenthal)
- The Emotional Wardrobe
- Bike-Off
- Design & Complexity
- Healthcare Systems
- Service Design
- Prototyping in Design
- Design of offices for older workers
- Design & Performance
- Meta Design
- Design & Obesity
- Design & the Charity Sector

Extending the Ladder

Professor Sam Bucolo (2014)
University of Technology Sydney

Level 6

Design as National competitive strategy

Level 5

Design as organisational transformation

Level 4

Design as strategy

Level 3

Design as process

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Non-Design

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Bringing the ladder to research

Design within the research agenda

Level 6

Design within National Research Policy
Setting out a position for design (effectively at a UKRI level)

Level 5

Design within organisational transformation
Using design approaches to develop new ways of delivering research: design facilitated interdisciplinarity

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For example: use of design methods – co-design etc

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Bringing design approaches to complex challenges

different discipline knowledge

different contemporary knowledge

different network knowledge

different operations knowledge

different thinking styles

different perceptions of constraints

different cultural sensitivities

different appetites for change

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Bringing design approaches to complex challenges

Stakeholder Perspectives
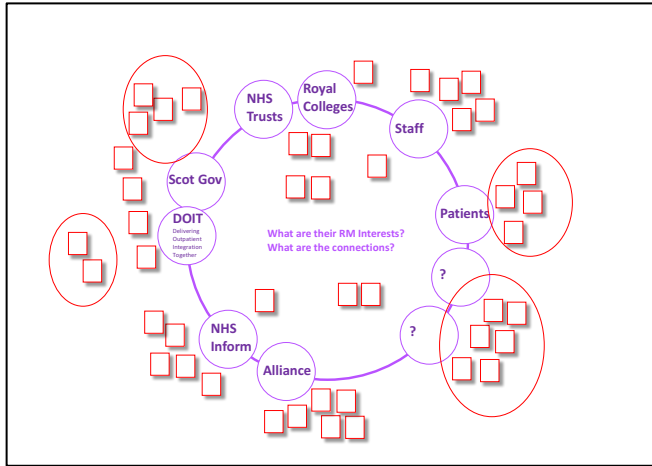
1. Identification of stakeholders
2. Exploration of stakeholder interests
3. Exploration of stakeholder perceptions
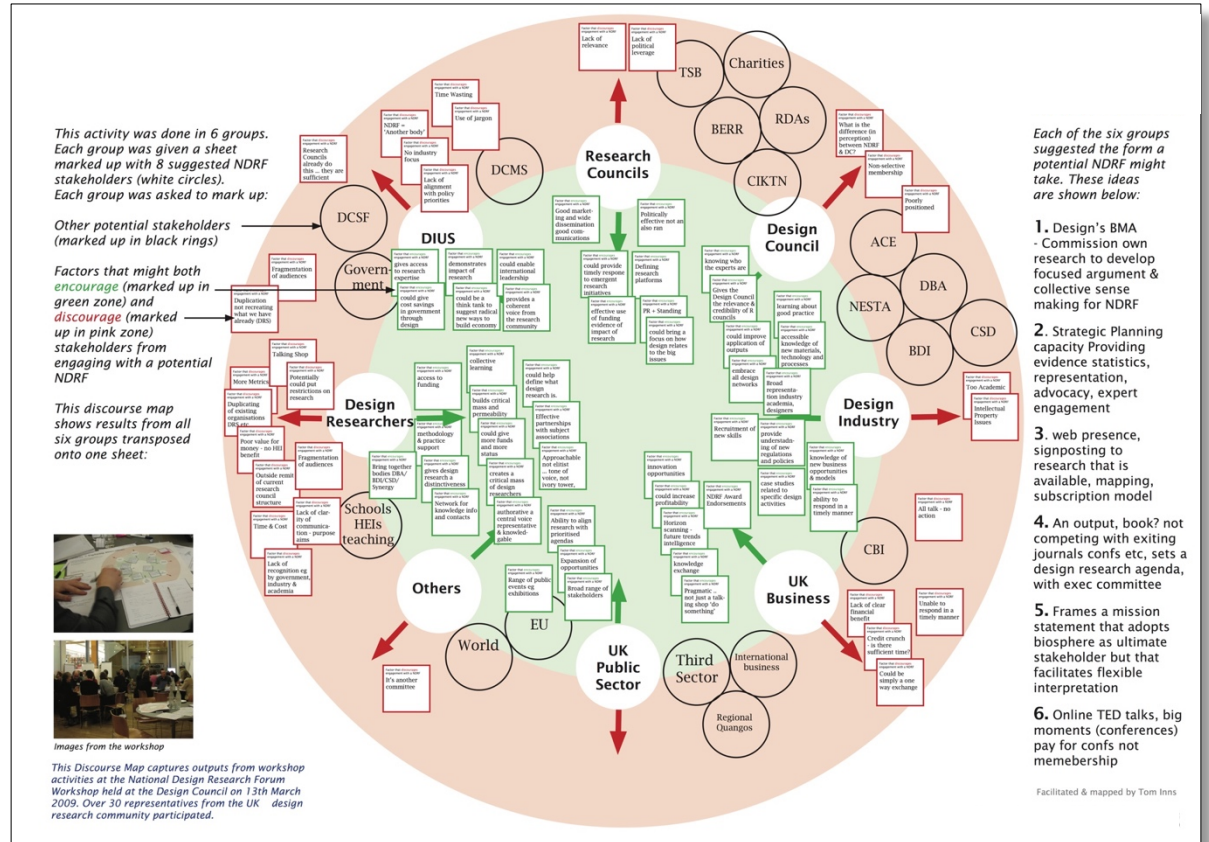
Stakeholder map for Design Council – National Design Research Forum

co-defining : co-designing : co-delivering
bringing design thinking to complex challenges

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ideas with depth & breadth

Drivers of Change

- Individually identify drivers of change – these can be themed into an appropriate format, for example: political, economic, social, technological
- In groups drivers are clustered into *past, present* & *future* drivers

Drivers of Change for the Metamorphosis of Design Management Network

co-curating : co-designing : co-delivering
bringing design thinking to complex challenges

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System Modelling

- An appropriate kit of parts is assembled for the modelling challenge in hand.
- Parts are carefully annotated
- Models are used to stimulate discussion – consider new connections etc

How do you model and visualise an innovation system?

© Tom Inns 2011
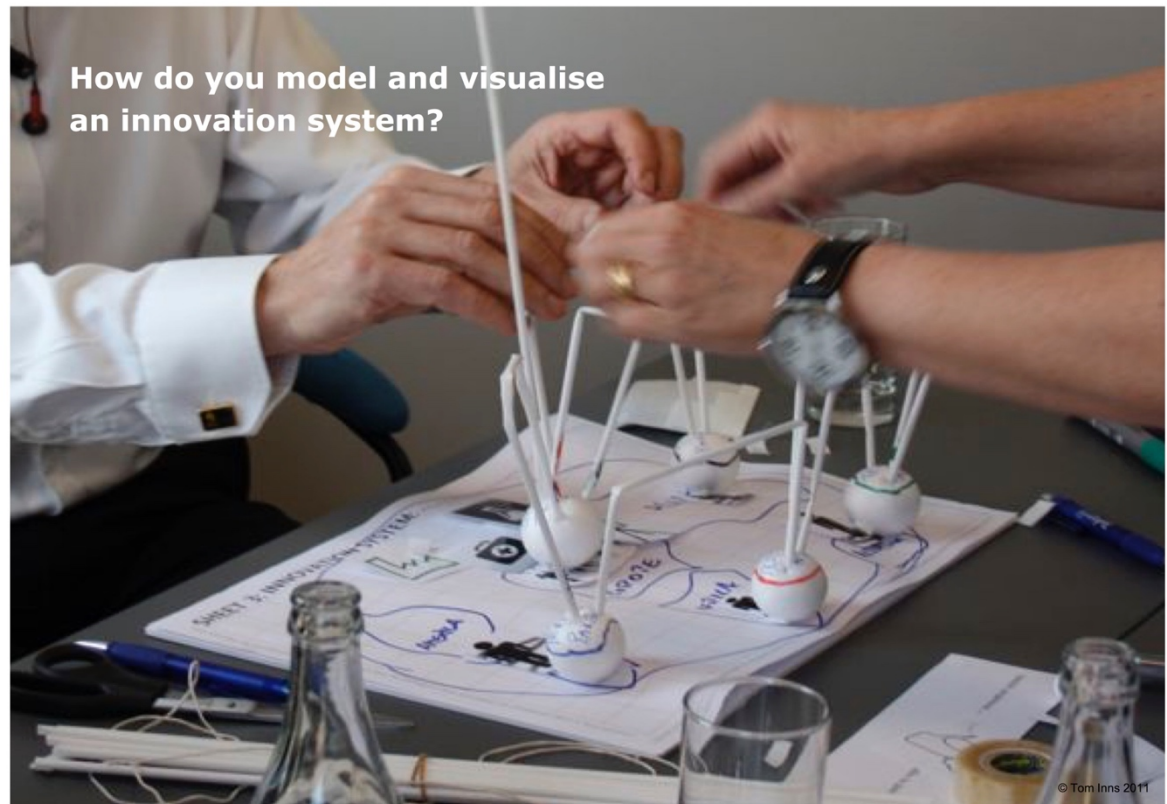
Diabetes Innovation System – Vinnova, Sweden

co-curating : co-designing : co-delivering
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Portfolio Mapping

Portfolio of Projects

DEGREE OF TECH PLATFORM INNOVATION

Personalised Information Sharing

UTUBE GUIDES

Audio Recordings

Navigator Project

TEACH BACK

Shared Decision Aids

Shared Decision Aids SCALING

END OF LIFE CARE 1.2

DEGREE OF BEHAVIOURAL INNOVATION

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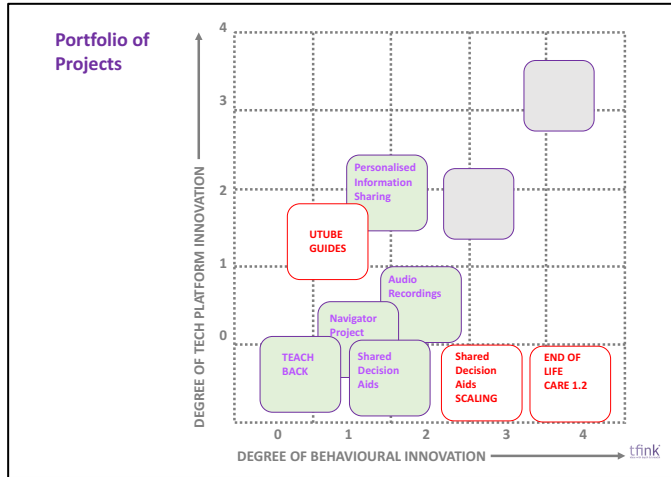
- Future projects/concepts are identified
- Appropriate matrix axes are identified
- Projects/concepts are arranged in the matrix
- Projects are compared & developed

Portfolio Mapping: Designing for the 21st Century

co-curating : co-designing : co-delivering
bringing design thinking to complex challenges

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Design approaches for complex challenges

Methods library
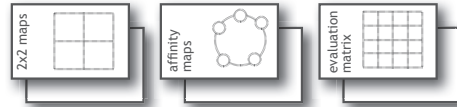
Structured approaches from business, design & enginering etc

Bespoke approaches designed for individual workshop needs

Prototyping kits, customised to suit workshop ambitions
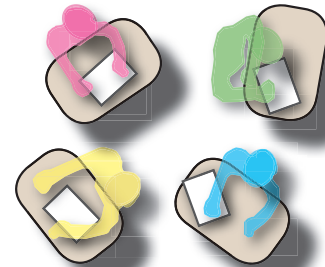
Invitation to workshop participants

Design facilitated workshops deliver:

- new insights & innovations
- the sharing of knowledge
- training in design methods
- co-creation of strategy maps
- new networks & connections

Workshop findings inform future:

- Strategy
- Policies
- Products
- Projects
- Research
- Services
- Networks

CONCEPTS

report
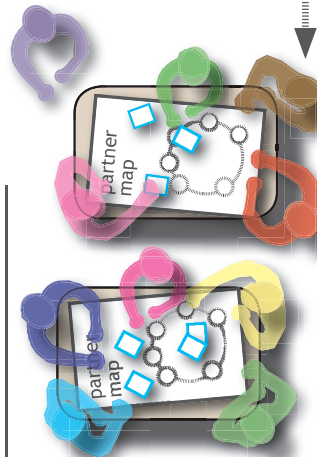
1. Briefing

Discussion to define workshop aims, & identfy participants
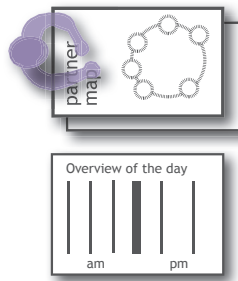
2. Planning

Development of workshop itinerary and design of methods

3. Delivery

Carefully workshop facilitation ensures all ideas & insights are captured on mapping sheets.
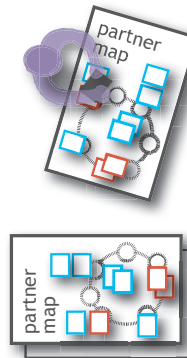
4. Feedback

A digital record of all workshop mapping sheets is disseminated to participants
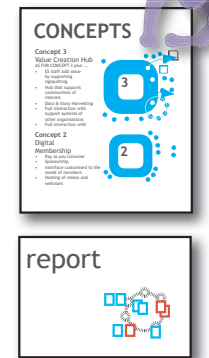
5. Synthesis

Strategy maps synthesing key workshop findings are created and disseminated

6. Reporting

Workshop findings are reviewed to inform future work streams

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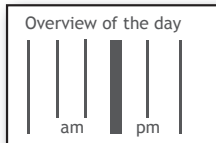
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Design approaches to research strategy

1. Briefing

2. Research Strategy Workshop (One-Day Version)

facilitation of structured sessions

3. Feedback

Aims & Objectives

Drivers of Change

Stakeholders & knowledge exchange

Strengths Weaknesses & Opportunities

Narrative & structure

Future vision, plan & kpis
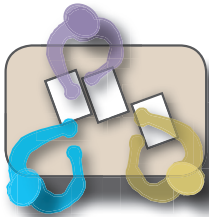
Strategy Map

Discussion to define workshop aims, & identify participants
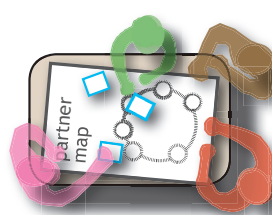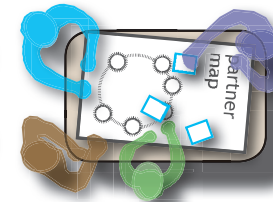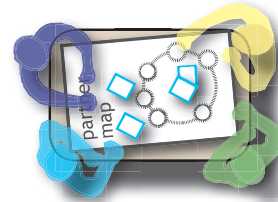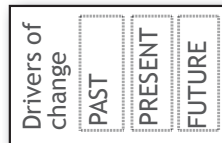
Identifying internal & external drivers of change
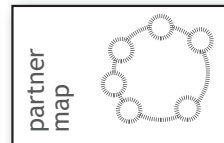
Identifying internal & external stakeholders & their needs
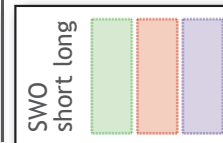
Identifying strengths & weaknesses & future opportunities

Exploring themes, and ways to structure research
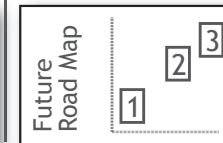
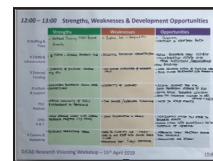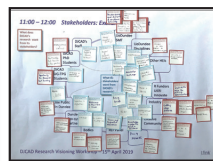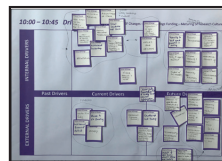Modelling the potential phases of future research development

Workshop outputs are synthesised & translated into a Strategy Map

Research Strategy Workshop Outputs
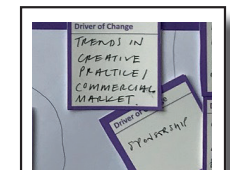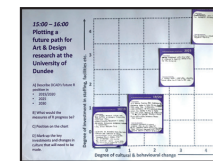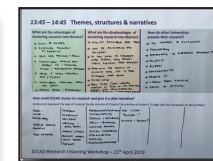
Digital Outputs

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Often at the end of research projects

Level 1

No-Design

Design approaches to support interdisciplinarity

1. Planning

Strategic Priorities

Overview of the day

am ——— pm
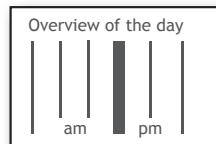
Identifying themes, funding opportunities & potential particpants

2. Pollinate Workshop

facilitation of structured sessions
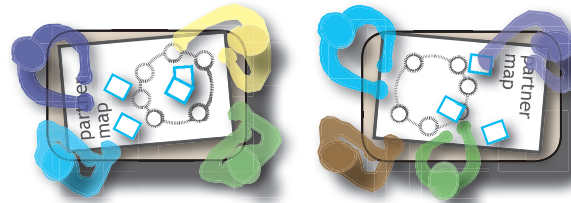
Trees of knowledge
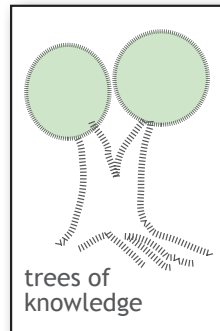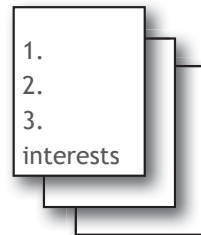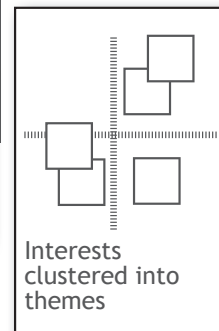
trees of knowledge

Participants draw themselves as a knowledge tree:
- roots of understanding
- branches of interest
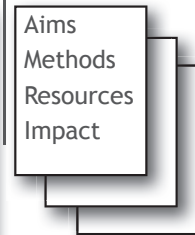- buds of future projects

Individual interests

1.
2.
3.
interests

Participants map out individual and shared research interests

Clustered interests

Interests clustered into themes

Shared research interests are clustered and prioritised.

Proposal sketches

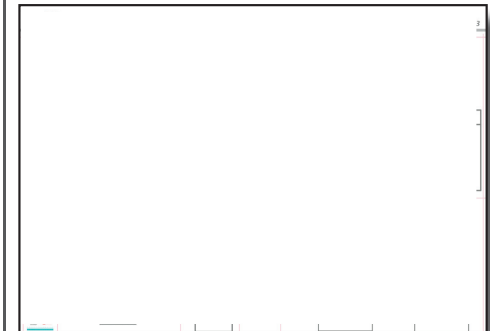Aims
Methods
Resources
Impact

Prioritised interests are developed into research project proposal 'sketches' (early prototypes).

3. Feedback

The Discourse Map is circulated and used to inform subsequent proposal development.

All workshop outputs are captured in a Discourse Map detailing individual and shared interests and possible projects.

Interests

- Bringing design thinking to complex interdisciplinary challenges
- Translating design methods into a group activity
- Training non-designers to take a design approach
- Researching into workshops as a methodology

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