
Defining design

Why definition is important for
design educators & practitioners

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Thesis overview

1. Why definition matters
2. Survey of definition: types, issues
3. Proposal for appropriate type and approach to definition
4. Compare definitions
5. Workshop and Website

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Definition as a tool, not legislative language

“Definitions serve strategic and tactical purposes in inquiry. They do not settle matters once and for all, as many people seem to believe they should. Instead, they allow an investigator or a group of individuals to clarify the direction of their work and move ahead.”

(Buchanan, 2001)

“Conceptual and verbal tool kit useful for thinking about how to improve the practice of [design]”

(Galle, 2002)

Design requires philosophic foundations

- agreement upon “core concepts and terminology” in design
- to clarify “the scope, bounds and foci of fields of research and theory-making about designing and designs”;
- greater investigation into epistemological, ontological issues in design; and lastly, better “integration” of design theory and “other bodies of knowledge”
(Love, 2002)

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-
- first objective leads to the second and third objective

Tension between pluralism and unification

- “one of the strengths of our field is that we hold different views” (Buchanan, 2004)
- “it is in the interest of the very same research community - and of community at large - that disintegration of design theory into rivalling design theories does not get out of hand. As researchers we have an obligation to produce theory that is generally credible and widely sharable outside our own circles; but the more such disintegration we allow, the less credible and sharable our products become.” (Galle, 2008)
- Pluralism or Ambiguity?
“Insidious inconsistency” (Galle, 2008)

Ambiguity of “design”

“Design is when designers design a design to produce a design.”
(Heskett, 2001)

- a professional practice: applied art
- a professional practice: all applied disciplines
- a plan or intention (“well designed football play”)
- a decorative pattern
- a drawing or sketch (of a plan)

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Comparing definitions

Old/Narrow: “Design as an applied art”

- US Patent Office (1913);
- American Designers Institute (1938)
- Bruno Munari (1966)

New/Broad: “Design as plan”

- Herbert Simon (1969)
- Bruce Mau (2007)
- Ralph & Wand (2009)

Middle approach: “Design as applied art & social science”

- Jorge Frascara? Klaus Krippendorf?

Design as an applied art

“ [A designer] is a planner with an aesthetic sense.”
(Bruno Munari, 1966)

Design as a plan

“No longer associated simply with objects and appearances, design is increasingly understood in a much wider sense as the human capacity to plan and produce desired outcomes.”

(Bruce Mau, 2007)

Design as a plan

“(noun) a specification of an *object*, manifested by an *agent*, intended to accomplish *goals*, in a particular *environment*, using a set of *primitive components*, satisfying a set of *requirements*, subject to *constraints*;”

“The design object is the entity (or class of entities) being designed. Note: this entity is not necessarily a physical object.”

(Ralph & Wand, 2009)

MIS / Organizational Analysis / Engineering

Design as a plan

Six classes of design objects:

- **physical artifacts**, both simple, such as boomerangs (single-component), and composite, such as houses (made of many types of components)
- **processes**, such as business workflows
- **symbolic systems**, such as programming languages
- **symbolic scripts**, such as essays, graphic models, and software
- **laws, rules and policies**, such as a criminal code
- **human activity systems**, such as software design projects, committees and operas
(Ralph & Wand, 2009)

Mapping the disciplines

Speculative

Aim: Truth or understanding

.....

Applied

Aim: Solve practical problem

.....

Executing

Aim: Match plan

.....

Physical sciences

Speculative

Aim: Truth or understanding

Physical Sciences

physics, chemistry, biology

Social Sc

psychology, s

Applied

Aim: Solve practical problem

Engineering

struct., materials, chem.

Health Sciences

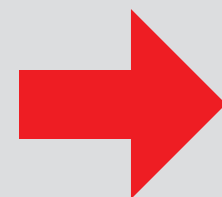
genetics, medicine

Executing

Aim: Match plan

Manufacturing, Construction and Delive

building trades, factory and assembly-line, technical trades, pr



Sciences to humanities

Social Sciences

psychology, sociology, linguistics

Fine Arts

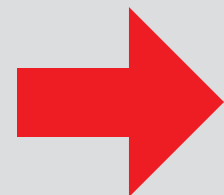
music, visual art, film/theatre, poetry, etc.

sciences

medicine

ction and Delivery

y-line, technical trades, printing, etc.



Humanities back to sciences

etc.

Ethics

political science, political philosophy

Politics and Law

policies, law, services, etc.

Administration

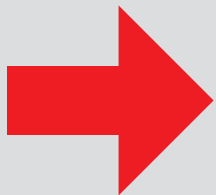
gov't ministry, institution

Logic

symbolic logic, mathematics

Computing Sciences

information, computation



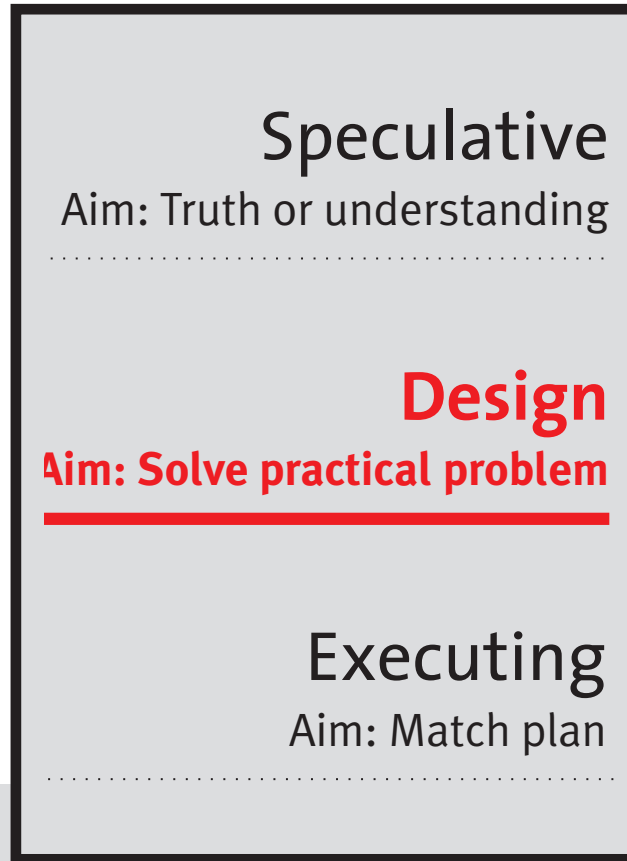
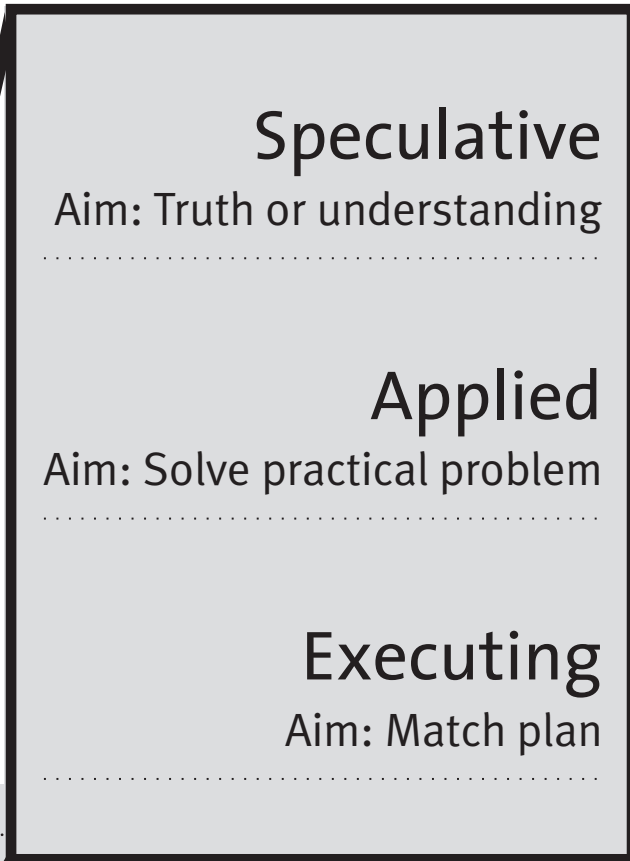
Wide view

| | Material / Physical | | | Immaterial / Metaphysical | | |
|---|---|--|---|--|---|--|
| Speculative Aim: Truth or understanding | Physical Sciences physics, chemistry, biology | Social Sciences psychology, sociology, linguistics | Fine Arts music, visual art, film/theatre, poetry, etc. | Ethics political science, political philosophy | Logic symbolic logic, mathematics | |
| Applied Aim: Solve practical problem | Engineering struct., materials, chem. | Health Sciences genetics, medicine | | Politics and Law policies, law, services, etc. | Computing Sciences information, computation | |
| Executing Aim: Match plan | Manufacturing, Construction and Delivery building trades, factory and assembly-line, technical trades, printing, etc. | | | Administration gov't ministry, institution | | |

Old definition: Design as an applied art

| | Material / Physical | | Immaterial / Metaphysical | | |
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| <p>Design Aim: Solve practical problem</p> | <p>Engineering Health Sciences struct., materials, chem.genetics, medicine</p> | | <p>Applied Arts architecture, industrial, graphic design, etc.</p> | <p>Politics and Law policies, law, services, etc.</p> | <p>Computing Sciences information, computation</p> |
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New definition: Design as a plan

Speculative
Aim: Truth or understanding

Physical Sciences
physics, chemistry, biology

Social Sciences
psychology, sociology, linguistics

Fine Arts
music, visual art, film/theatre, poetry, etc.

Ethics
political science, political philosophy

Logic
symbolic logic, mathematics

Design
Aim: Solve practical problem

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Old vs. New

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Impact of each definition

Design practice

- What makes a designer different than an engineer?
- What is the unique skillset we offer to clients/projects?
- How do we argue for the value of design?

Design education

- Evaluation of students: What is good design?
- What are core courses all designers should take?

Middle definition:

Design as an applied art & social science

| | | | | | |
|---|---|---|--|--|---|
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| Applied Aim: Solve practical problem | Engineering struct., materials, chem.genetics, medicine | Health Sciences | Design <u>architecture, industrial design, graphic design, fashion design, interior design, etc.</u> | Politics and Law policies, law, services, etc. | Computing Sciences information, computation |
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focus: aesthetic, semantic, social functions

What do you think?

- Which camp do you fall into?
- Do you have concerns about the broad definition?
- Concerns with the visualization?

Website

- www.defining-design.net
- Debate for design professionals and educators