

# Wicked Problems in Design

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# Overview

- Reduction
- Technology
- Placements as a Framework
- Wickedness

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# Big Ideas

**What is the main thesis of this reading?**

- integrated disciplines
- placements as a framework for design
- design as a unique discipline
- design as a complex discipline

*"The problem for designers is to conceive and plan what does not yet exist, and this occurs in the context of the indeterminacy of wicked problems, before the final result is known" (17).*

**What does this mean?**

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# Design Eludes Reduction

*"Despite efforts to discover the foundation of design thinking in the fine arts, the natural sciences, or most recently, the social sciences, design eludes reduction and remains a surprisingly flexible activity" (3).*

**What does this mean?**  
**Why is this important?**

Evolution of design:

```

    graph LR
      A([trade activity]) --> B([segmented profession])
      B --> C([field for technical research])
      C --> D([new liberal art of technological culture])
  
```

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# What Of Technology?

**What does Technology mean in this sense?**

*".. the art of experimental thinking" (5)*

*"Many people continue to think of technology in terms of its product rather than its form as a discipline of systematic thinking" (18)*

**Why is it important to re-evaluate the definition of technology?**

**Repositioning allows us to build a framework to support systematic thinking and experimental thinking**

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# A Framework

Placements:

- signs** | symbolic & visual communication
- things** | material objects
- actions** | activities & services
- thoughts** | complex systems

*".. signs, things, actions and thoughts are not only interconnected, they also interpenetrate and merge in contemporary design thinking with surprising consequences for **innovation**" (8)*

**How do the placements assist innovation?**

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### A Framework

Placements:

signs  
things  
actions  
thoughts

symbolic & visual communication  
material objects  
activities & services  
complex systems

*"... Innovation comes when the initial selection is repositioned at another point in the framework, raising new questions and ideas" (9)*

- Graphic designer as interpreter of messages
- Web designer as usability consultant
- Architect as way finding/system designer

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### Wicked Problems

**So what makes a problem "wicked"?**

*"... Class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (14)*

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### Wicked Problems

**So what makes a problem "wicked"?**

*"... Class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (14)*

- **What is an example of a social system problem?**
- **What does information mean in this context?**
- **What are examples of decision makers?**
- **What are ramifications, in this context?**

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### Wicked Problems

The big question:

*"Why are design problems indeterminate and, therefore, wicked? .. Design problems are 'indeterminate' and 'wicked' because design has no special subject matter of its own apart from what a designer conceives it to be" (15)*

**How can placements affect a wicked design problem?**

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### Wicked Problems – Remove the Wickedness

*"Placements are the tools by which a designer intuitively or deliberately shapes a design situation ... they are the quasi-subject matter of design thinking, from which the designer fashions a working hypothesis suited to special circumstances" (16)*

*"The problem for designers is to conceive and plan what does not yet exist, and this occurs in the context of the indeterminacy of wicked problems, before the final result is known" (17)*

**What does this all mean?**

**How can this theoretical approach be pragmatically related to your design process?**

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### Summary

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- Wickedness

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