

Interaction Design, Society and the Public Sector

Design Thinking: *Process*

Jon Kolko



Process

[4B] Jocelyn Wyatt



“Time and again, initiatives falter because they are not based on the client’s or customer’s needs and have never been prototyped to solicit feedback. Even when people do go into the field, they may enter with preconceived notions of what the needs and solutions are. This flawed approach remains the norm in both the business and social sectors.”

Respond, based on your own experiences conducting research.

[4B] Jocelyn Wyatt



“The design thinking process is best thought of as a system of overlapping spaces rather than a sequence of orderly steps. There are three spaces to keep in mind: inspiration, ideation, and implementation. Think of inspiration as the problem or opportunity that motivates the search for solutions; ideation as the process of generating, developing, and testing ideas; and implementation as the path that leads from the project stage into people’s lives.”

What’s the difference between “design” and “design thinking”?

Why would IDEO frame this as a separate activity?

[4B] Jocelyn Wyatt



“One of the biggest impediments to adopting design thinking is simply fear of failure. The notion that there is nothing wrong with experimentation or failure, as long as they happen early and act as a source of learning, can be difficult to accept. But a vibrant design thinking culture will encourage prototyping—quick, cheap, and dirty—as part of the creative process and not just as a way of validating finished ideas.”

Where does fear of failure come from?

What people or organizations reinforce this?

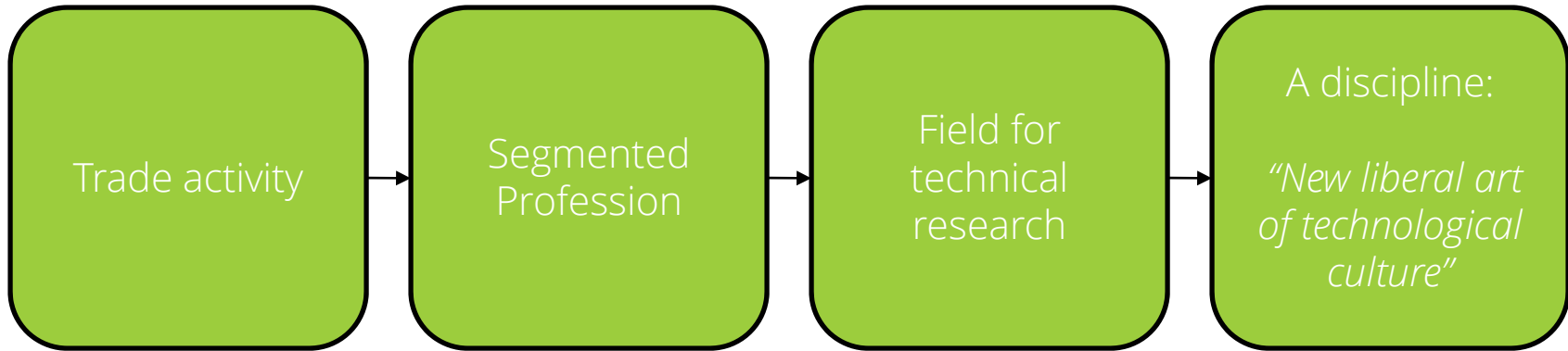
[4B] Richard Buchanan



"... design eludes reduction and remains a surprisingly flexible activity."

What does it mean to reduce a term or discipline?

[4B] Richard Buchanan



What are examples of each of these?

Why is this progression important?

[4B] Richard Buchanan



"What Dewey defines as technology is not what is commonly understood in today's philosophy of technology. Instead of meaning knowledge of how to make and use artifacts or the artifacts themselves technology for Dewey is an art of experimental thinking."

Do you agree?

Why is this an important distinction or clarification?

[4B] Richard Buchanan



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

Symbolic and Visual
Communication

Material Objects

Activities and
Services

Complex Systems

Signs

Things

Actions

Thoughts



[4B] Richard Buchanan



"... innovation comes when the initial selection is repositioned at another point in the framework, raising new questions and ideas."

Symbolic and Visual
Communication

Material Objects

Activities and
Services

Complex Systems

Signs

Things

Actions

Thoughts



[4B] Richard Buchanan



“All men and women require a liberal art of design to live well in the complexity of the framework based in signs, things, actions, and thoughts.... such an art will enable individuals to participate more directly in this framework and contribute to its development.”

What does this mean, in the context of research?

[4B] Richard Buchanan



A wicked problem is a “.. 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.”

Are all design problems “wicked”? Why or why not?

[4B] Richard Buchanan



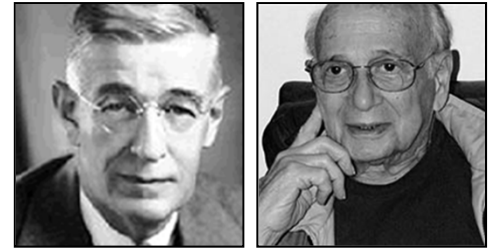
“Design problems are “indeterminate” and “wicked” because design has no special subject matter of its own apart from what a designer conceives it to be. The subject matter of design is potentially universal in scope, because design thinking may be applied to any area of human experience.

But in the process of application, the designer must discover or invent a particular subject out of the problems and issues of specific circumstances.

This sharply contrasts with the disciplines of science, which are concerned with understanding the principles, laws, rules, or structures that are necessarily embodied in existing subject matter.”

What do you think of that?

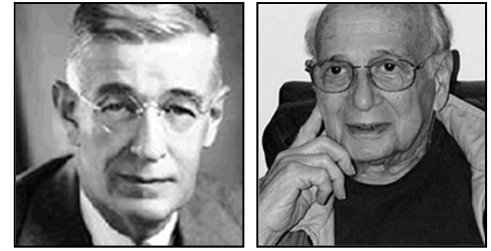
[4B] Horst Rittel & Melvin Webber



“There seems to be a growing realization that a weak strut in the professional’s support system lies at the juncture where goal-formulation, problem-definition and equity issues meet.”

What does this mean – what are goal formulation, problem definition, and equity?

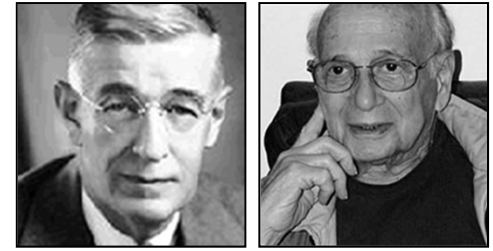
[4B] Horst Rittel & Melvin Webber



“On the one hand, there is the belief in the ‘makeability,’ or restricted malleability, of future history by means of the planning intellect – by reasoning, rational discourse, and civilized negotiation. At the same time, there are vocal proponents of the ‘feeling approach,’ of compassionate engagement and dramatic action, even of a revival of mysticism...”

Explain. What is “in the air” in popular culture now? Relate to social and context.

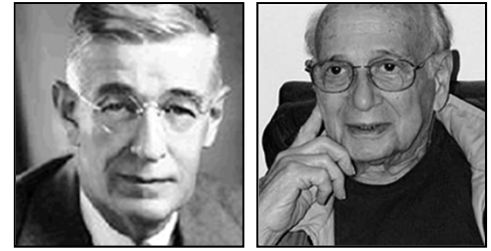
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“The classical paradigm of science and engineering – the paradigm that has underlain modern professionalism – is not applicable to the problems of open societal systems... the problems of governmental planning are ill defined; and they rely upon elusive political judgment for resolution. (Not ‘solution’. Social problems are never solved. At best they are only re-solved – over and over again.)”

Why is science and engineering not applicable to open societal systems?

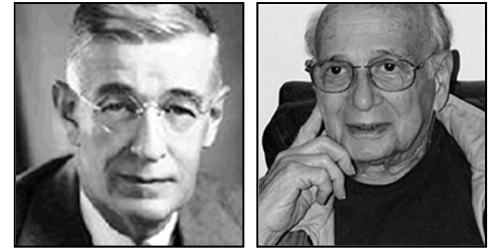
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“The information needed to *understand* the problem depends upon one’s idea for *solving* it... the formulation of a wicked problem *is* the problem! The process of formulating the problem and of conceiving a solution (or re-solution) are identical, since every specification of the problem is a specification of the direction in which a treatment is considered.”

Explain this in plain language.

[4B] Horst Rittel & Melvin Webber



“Every wicked problem can be considered to be a symptom of another problem.”

Do you agree? Why?

4B



Process

In groups of two or three, synthesize these readings into a single cogent argument of no more than five sentences. [Fifteen Minutes]