Interaction Design, Society and the Public Sector
The Role of Research: *Value*

Jon Kolko

ac4d

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Value

[2A] Don Norman

I've come to a disconcerting conclusion: Design research is great when it comes to improving existing product categories, but essentially useless when it comes to breakthroughs.

What do you think about that, given your research?

[2A] Don Norman

New conceptual breakthroughs are invariably driven by the development of new technologies. The new technologies, in turn, inspire technologists to invent things. Why the invention? Sometimes because the inventors themselves dream of having the capabilities, but many times simply because they can build them. In other words, grand conceptual inventions happen because technology has finally made them possible.

Do people need them? That question is answered over the next several decades as technology moves from technical demonstration, to product, to failure, or perhaps to slow acceptance in the commercial world where slowly, after considerable time, the products and applications jointly evolve, and slowly the need develops.

[2A] Don Norman

Incremental Innovation

Revolutionary Innovation

What are examples?

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[2A] Don Norman

Incremental Innovation

The least interesting innovations to the university and company research community are the small, slow enhancements that gradually lower costs while improving performance. But in fact, not only is this where most product enhancement takes place, but it is also where the research community can add the most value.

Revolutionary Innovation

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Revolutionary Innovation

The least interesting innovations to the university and company research community are the small, slow enhancements that gradually lower costs while improving performance. But in fact, not only is this where most product enhancement takes place, but it is also where the research community can add the most value. ***This is where ethnographic observation can be powerful, uncovering the difficulties people have in everyday use, the workarounds and hacks they invent that can suggest product modifications. This allows existing products to be modified at low cost, low risk, while making them ever more attractive, ever more valuable to the customer base.***

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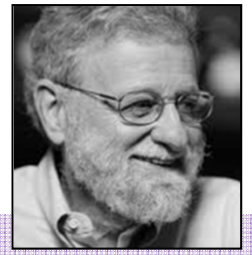
[2A] Don Norman



Incremental Innovation

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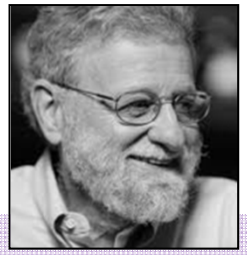
The real question is, how much does all of this help products? Very little. In fact, let me try to be even more provocative: Although the deep and rich study of people's lives is useful for incremental innovation, history shows that this is not how the brilliant, earth-shattering, revolutionary innovations come about.

[2A] Don Norman



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Major innovation comes from technologists who have little understanding of all this research stuff: They invent because they are inventors. They create for the same reason that people climb mountains: to demonstrate they can do so. Most of these inventions fail, but the ones that succeed change our lives.

[2A] Don Norman

Brand-new ideas are strange and foreign, and they face two different kinds of hurdles. The first is in the company. If developed within a company, they often do not fit. They compete for scarce resources with other, proven products. New ideas have to fit into the competencies of a company; they must fit the product schedule, the manufacturing, marketing, and distribution chains. A

The second hurdle is outside the company. If the idea is done outside of a company, then the same hurdles exist in trying to convince people to fund the development. It is risky, unknown, untested. Why should anyone invest? Especially when the data shows that most such Investments fail.

[2A] Don Norman

Postal services, telephone, printed publications, radio, television, email, cell phones, electronically mediated social networks—all could be considered various manifestations of these needs. But these needs came after the development of the relevant technologies.

One thousand years ago people did not have a need for email or not even for the telephone: It took the existence of technologies to make these activities possible, which then slowly determined the need. Remember, when the telephone was first introduced, few people could conceive of why they would want it. Indeed, hotels resisted it..

[2A] Jon Kolko

Design research is different from marketing research. The goal in design research is to find inspiration for design, whereas the goal in marketing research is to predict the behavior of a larger group. Unfortunately, large businesses nearly always lose this critical distinction in the similar terminology and approaches.

What's the difference?

[2A] Jon Kolko

Design Research	Marketing Research
Focuses on people	Focuses on people
Can be qualitative or quantitative	Can be qualitative or quantitative
Borrows from the social and behavioral sciences	Borrows from the social and behavioral sciences
Attempts to *understand culture*. Looks at the styles, words, tools, and workarounds people use in an effort to inspire design.	**Attempts to *predict behavior*. Looks at what people say they would do, or what they actually do, in an effort to predict what they would do in a new situation**
***Celebrates* the unique and peculiar. The rare or obscure in observations can lead to a new or interesting design idea.**	***Avoids* the unique and peculiar. The goal is to understand mass responses; outliers are frequently ignored.**
Avoiding bias is *irrelevant*. The goal is not to be objective but instead to be rigorous.	**Avoiding bias is *critical*. The statistical analyses of data require an objective point of view.**

[2A] Jon Kolko

A researcher could approach this problem from three immersion perspectives by immersing herself in the following:

1. *A group of teens who frequently travel a great deal or commute to school and then to their jobs. The researcher would try to understand the way teens keep in touch over distances, and she would learn about the language and the feelings about staying in touch over distances.*

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2. *The technology used by teens, by looking at their various computers, phones, and other technological devices. The researcher would try to understand the pros and cons of various existing tools, and she would learn about the attitudes toward these devices, the most and least frequently used features, and the qualitative feelings about the various tools*

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3. *The business of mobile communication and networking, by looking at the services and capabilities of leading companies such as Facebook or AT&T. The researcher would learn about pricing models, tiered offerings, branded services, and the other packages.*

[2A] Jon Kolko

Researchers Craig Vogel, Jonathan Cagan, and Peter Boatwright use an action-oriented context for their definition: Innovation "extends beyond invention of new technology and includes a thoughtful and insightful application, delivery, extension, or recombination of existing technologies . . . the key is that an innovation is a valued leap from the viewpoint of consumers whether or not it is incremental from the producer's standpoint".

This definition puts the consumer at the center of the "innovation universe," and so it seems logical to then emphasize the value of design research. It is important to note, however, two major problems with viewing design research as the "keys to innovation."

How do you feel about that definition?

[2A] Jon Kolko

Designers are increasingly expected to discuss not just how to solve a problem but also which problems to consider solving. They are increasingly pressured to speak with clarity about product launches, strategic product road mapping, competitive marketplace trends, short- and long-term revenue opportunities, partnerships and sponsorships, and other issues related to the business of design.

This presents a great opportunity for designers to move from a tactical role to a strategic role, where they are valued not only for their ability to produce but also for their ability to think and analyze.

[2A] Jon Kolko

A designer attempting to produce an innovative design will conduct research focusing on the experiential, emotional, and personal aspects of culture. This research will describe an opportunity — design research acts as problem finding. The research findings may be captured in PowerPoint presentations or described on a whiteboard. Either way, the research has allowed the design team to gather data within a constrained problem space.

Design is that act of problem solving — of appropriating formal qualities into a new design idea that fulfills the stated criteria and adds value to the human condition. Design synthesis, then, will translate the opportunity into specific design criteria, or a set of elements that must be present to afford a cohesive and concrete design. The synthesis will describe the solution; design synthesis is the process of problem understanding.

What's the difference between synthesis and research?

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Value

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