Pretotyping

Jeremy Clark

In the 1980's, IBM was in discussions with several important customers about a radical product idea: hardware and software that could turn spoken words into a text on a screen. The fundamentals of the technology were still years away, yet customers seemed very enthusiastic: many declared they would pay generously for such a solution.

Traditionally, IBM would have launched an R&D effort to develop the algorithms and electronics necessary to demonstrate a prototype. In the case of the Speech-To-Text idea, however, a team member had an intriguing alternative suggestion: they should pretend to have the solution, to see how customers actually reacted to the capability.

What the team did was to create a movie set-like testing lab, in the form of a typical office space of the day. Customer subjects would be briefed on the Speech-to-Text solution, then seated in the space. The subject would speak into a microphone, dictating a variety of office correspondence, and would almost immediately see their words appear on the screen on the desk in front of them. What the subjects didn't know was that the electronic output was being produced by a typist in a nearby room, listening to the dictation through headphones.

What the IBM team learned was that in practice customers didn't like the solution, not because of flaws in the product (the transcribed text) but because of a host of hitherto-unseen environmental challenges: speaking taxed the subject's throat, there was concern for privacy surrounding confidential material that the speaker would not wish to be overhead, and so on. Actual exposure to the essence of the proposed solution completely reversed the earlier customer enthusiasm.

What the IBM team had created was a pretend-otype: they were faking the product before making it. The experiment was more than a concept board or an idea on a piece of paper, either of which is entirely hypothetical. It was less than a prototype, which is typically a primitive but functioning ancestor to a finished solution. It was something in between, a new experimental protocol that drove to the fundamental question at the heart of every breakthrough innovation: "Do they want it?".

The mindset demonstrated by the IBM team is the heart of pretotyping, a method for early-stage demand validation of breakthrough ideas. A formal definition is:

> **Pretotype:**
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> To validate the market appeal **and actual usage** of a potential new product by simulating its core experience **with the smallest possible investment** of time and money.

Aside from the obvious - and critical - new element of "actual usage", this textbook definition will seem intuitive to innovators: of course, that's what we already do! In practice it isn't often

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the case: the actual usage is assumed to be untestable before at least a working prototype is available, so early development proceeds on gut feel and extrapolation of past experience.

A more memorable and practical definition is:

> **Pretotype:**
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> To make sure you are building the right *it before* you build *it* right.

This is a much more useful call-to-arms for innovators. It demands a commitment to reaching the target customers for their ideas, not with concepts but with revealed preference experiments. Those experiments must simulate the core experience of the innovation, but that does not mean they need to be working prototypes. Pretotypes inhabit the middle ground between abstract ideas and tangible prototypes: they must be just sophisticated enough to represent a valid test of market interest, and no more. Finding that minimum scale is the core mindset and discipline of pretotypers.

Given the daunting odds of success that any breakthrough innovation faces, what the IBM team did should be the norm, not the exception. The Speech-to-Text experiment saved IBM a fortune in wasted development resources, because it provided clear, direct, and most importantly <u>early</u> data on the market appeal of their idea. Those resources - capital investment for sure, but perhaps more importantly scarce technical personnel - could be freely invested in other more promising projects. This leads to an important effect of pretotyping: it does not result in fewer failures, but <u>faster failures</u>. This conserves innovation resources so that the small number of "right its" can be identified and supported sooner.

Pretotyping is a toolkit to add to the full spectrum of breakthrough innovation processes, from generating distinctive insights into customer needs through idea generation techniques to steady-state product management. It adds structure to the activities that follow the generation of a breakthrough idea, that phase which typically involves a great deal of opinion-based discussion about the merits of the idea, but relatively few facts. Pretotyping bridges the gap between idea conception and product development, by grounding breakthroughs in confidence-building data quickly and with the smallest possible quantum of wasted resource and uncertainty.

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ABOUT THE AUTHOR

Jeremy Clark is a growth strategy and innovation expert, helping companies to unleash innovation for over 20 years. As a consultant, he has coached business leaders across many sectors through innovation and growth strategy projects, and he has helped to create hundreds of millions of dollars in new wealth from innovative products and services. Many of these are highly visible brands, others thrive as internal process innovations or B2B offers embedded in OEM customer solutions.

Before becoming an independent consultant, Jeremy was a Principal at Strategos, the firm founded by management expert Professor Gary Hamel, and he continues to provide support to Hamel's latest project, the Management Innovation eXchange (or MIX).

Jeremy co-founded Pretotype Labs with serial entrepreneur and ex-Googler Alberto Savoia in 2012 to introduce agile innovation techniques to complement more traditional approaches to mature company innovation such as R&D labs and structured NPD processes.

Jeremy is an expert in corporate venturing, an approach that embeds entrepreneurial principles and methods within companies. Increasingly, he helps companies to harness the power of social media to engage larger communities and customer groups in company innovation work.

Jeremy received his MBA from the University of Chicago, and is a frequent speaker on growth strategy and innovation.

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