Creating Small Products at a Big Company: Adobe's "Pipeline" Innovation Process

Rob J. Adams
Senior Design Research Lead
Adobe
San Francisco, CA 94103 USA
adams@adobe.com

Bradee Evans
Design Program Manager
Adobe
San Francisco, CA 94103 USA
bradee@adobe.com

Joel Brandt
Senior Research Scientist
Adobe Research
San Francisco, CA 94103 USA
joel.brandt@adobe.com

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Abstract
Pipeline is a new development process at Adobe designed to rapidly prototype and evaluate new product offerings. Pipeline has user research at its core, and success is defined by how much is learned about a given problem, not by how much product is built. Starting ideas for new product directions are identified through Contextual Inquiry. Once a product direction is selected, an iterative process of development and evaluation is carried out over a 13-week period. Opportunities to pivot are built in at 3-week intervals, driven by evaluation results from laboratory studies. The Pipeline process is explained through an example product prototype, called "Gadget". Gadget is an application targeted at Web developers that helps them more easily experiment with and modify the visual layout of a Web page.

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H.5.2. Information interfaces and presentation (e.g., HCI): User Interfaces—*theory and methods*.

The Need for a New Process

Adobe builds tools for creative production. Today, the space of what consumers and professionals want to create is growing rapidly. As just a few examples, the Web is becoming highly interactive, print media is moving online, and an entire generation of consumers now has access to high quality still and video cameras. To provide better tools in these spaces, Adobe must innovate.

Large companies like Adobe are typically set up to build large software. In contrast, innovation typically happens through the creation of small, precisely-targeted product offerings that grow over time [1]. In order to innovate, Adobe needs to figure out how to successfully build small ($1 - $10 million in yearly revenue) products that eventually grow into something larger.

There is a wealth of understanding about how small companies [3] can innovate in a low-cost way [2] in order to make small products viable. Our challenge was to adapt lean and agile approaches to the business realities of a 10,000+ person company. This case study reports on the successful implementation of "Pipeline", a process for innovation at Adobe.

A project that follows the Pipeline process takes approximately 13 weeks to complete by a cross-discipline team of 5 individuals: a user researcher, a designer, a developer, a product manager, and a project manager. Each project starts with a question about how a future product might meet a user need. For example, a recent project began with the question "How might we help designers tweak the layout of Web pages more easily?"

The success or failure of a Pipeline project is measured by how much is learned about customer needs, *not* by how much product has been built at the end of 13 weeks. Learning takes place through rapid prototyping and frequent evaluation with customers. Pipeline teams evaluate a prototype every 3 weeks, and refine the question they are hoping to answer after each evaluation. By focusing on refining the *question* rather than on refining the *product*, we have found that it is much easier for management to understand and support changing directions.

The principal challenge in implementing the Pipeline process was in obtaining upper management buy-in. The most successful tactic was offering arguments for why Pipeline would avoid pitfalls that caused us to build unsuccessful products in the past.

References

[1] Christensen, Clayton M. The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You Do Business. HarperBusiness, 2011.

[2] Cockburn, Alistair. Agile Software Development. Addison-Wesley, 2002

[3] Ries, Eric. The Lean Startup. Crown Business, 2011.