

January 8th, 2003

Google Demonstrates Creativity in Product Management

Speaker: Marissa Mayer, Google

Marissa Mayer of Google.com addressed a standing room only crowd at the January 8th meeting of the SVPMA. Marissa spoke about creativity in the product management process and her experiences at the company. She has been with Google since June 1999 and has led nearly every user-interface effort in the last three years. Marissa opened with Google's mission:

To organize the world's information and make it universally accessible and useful

and a simple formula:

Smart people

+ Creative environment

+ Outlets for ideas

= Innovation

This (and a lot of hard work) has catapulted Google.com into a top 10 property in every major global market handling 150 million searches a day.

First and foremost, Google focuses on search differentiation. The company measures this on accuracy, comprehensiveness - Google has over three billion pages catalogued, performance – return results in less than half a second, integrity – Google does not accept paid placements in search results, and user centered design. Further, the design teams adhere to a simple three point philosophy:

- Build products that matter
- Generate and capitalize on network effects
- Don't be evil, which ties into their integrity and resisting the temptation to develop "big brother" capabilities.

The development process starts with collecting product ideas, prioritizing them, forming small self-organized teams, and user-centered design. Google believes ideas come from everywhere and has established multiple channels for collecting ideas from brainstorm meetings to email to web forms. In brainstorm sessions, Marissa tries to cover six ideas in one hour, devoting 10 minutes to each. The organization also uses Sparrow Web, which is a program from Xerox PARC that facilitates collaborative web pages to help capture ideas and casual conversations.

Google then compiles a top 100 list from the work already in development, ideas for new projects, and all maintenance efforts. Each idea is ranked on a scale from one to five for user retention, usefulness, diversification of revenue, and chance for success. Resources are allocated against this list, which usually run out somewhere in the threes. The development efforts are sized to take approximately 3 - 4 months each.

The projects are then spread between small, three person development teams. Each team represents a project and co-locates during its duration. Teams form and disband frequently as development efforts finish. One engineer on each team will act as technical lead, and a product manager will work with three teams on average. With 180 engineers, Google can develop 60 concurrent projects. This provides the company with an opportunity to invest in high-risk projects. Google also keeps its organization flat. There are only 5 engineering managers, which means each manager has 30 – 40 direct reports. To allow visibility across the organization, each team member sends out "snippets" on Monday morning on how they allocated their time the previous week.

Through regular user studies, Google has maintained its clean user-interface while creating an easy site to navigate. The roots of Google's minimalist design go back to 1998 when the company did not have a Webmaster. The company did not conduct its first user study until January 2000 when Marissa uncovered major usability issues with the site. Among the learnings, she found that users had a "laser focus" on

the search results and ignored everything else on the screen, including help. Further, the lack of fancy graphics confused many users into thinking the page had not finished loading.

In creating its News search, which is now in beta, Google has used the principle of iteration. The idea developed after the events of September 11th, when a Google employee was looking for ways to group similar articles to learn the latest news. The company went through many different design and layouts before settling on the layout that is now available through the site.

Marissa concluded by emphasizing the need to match process to the problem at hand. In particular:

- Use an idea gathering and prioritization process that works for your company.
- Use multiple techniques in understanding user needs.
- Maintain a flexible execution path that is appropriate for the product.
- Ensure your service provides value to and is designed around the user.