NANO TOOLS FOR LEADERS®

MORE AND BETTER INNOVATION THROUGH OUTSIDE COMMUNITIES

Nano Tools for Leaders® are fast, effective leadership tools that you can learn and start using in less than 15 minutes — with the potential to significantly impact your success as a leader and the engagement and productivity of the people you lead.

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THE GOAL:

Harness key sources of innovation outside your company.

NANO TOOL:

Joy's Law, named after Sun Microsystem's founder Bill Joy, states that "No matter who you are, most of the smartest people work for somebody else." Research on the sources of innovation has proven Joy's Law correct. Many of the ideas and innovations that lead to breakthrough products and services start outside of companies, among users of products and informal communities of amateurs. In fields ranging from scientific instruments to commercial banking, from semiconductor manufacturing process-es to plastic extrusion, researchers have found that key innovations were developed by users, not manufacturers.

There are a number of reasons why this is the case. The people who feel problems most acutely tend to be the ones who solve them (necessity is the mother of invention, after all). It is far more likely that users — whether they are surgeons performing novel procedures or long distance bikers looking to maintain an edge — are going to be more motivated to solve problems than researchers in an R&D department. This is compounded by the fact that, in an era of easy communication across the globe, Joy's Law is more important than ever. Billions of people are online, sharing information and ideas, and the companies that figure out how to harness this amazing resource will have the key to the future of innovation.

How companies choose to tap into communities will depend on their goals and methods. But for every product and service category, they can find users and communities modifying, discussing, and innovating on existing projects.

HOW COMPANIES USE IT:

*   **Apple's App Store**, and the dominance of the iPhone, is built on the community of app developers who create new uses and products for iOS. In the first year the iPhone was on the market, there was no App Store, but enterprising users found ways to create semi-legal free apps that could run on the iPhone. Rather than aggressively prosecuting these users, Apple built its early lead by allowing these hackers to sell products through the App Store, turning its user community into entrepreneurs who helped increase the value of Apple's products.

- **One of 3M's medical products**, the surgical drapes used to keep operating areas clean of infection, was making the company $100M a year, but sales were stagnating due to the price of the products and a shortage of compelling innovations. 3M decided to reach out to users to try to jump-start the stalling business. They gathered together doctors from third world countries (where being cash-starved means devising innovative ways of dealing with infection), veterinarians, and even a Hollywood makeup artist (experienced in developing non-irritating masks and powders), and together created novel ideas for low-cost infection-fighting products that had far more market potential than any internally-generated ideas.

- **Innocentive, a spin-off from Eli Lilly**, uses a network of over 270,000 scientists to solve complex problems. Companies seeking innovative solutions post challenges for the community to solve, with a cash prize going to the best answer. Over 1,500 problems have been solved, often by unexpected people, and an audit of a sample of these found that companies seeking solutions from the community had an ROI of 2,175% on their prize investments.

ACTION STEPS:

1. **Explore**. Examine the user community around your products or services. Who is modifying or building on to your product or service? What unmet needs are prompting users to develop their own solutions? What customer segments find existing solutions or products unsatisfactory, and what are they doing to solve their problems on their own?

2. **Integrate**. Which parts of your organization are responsible for channeling user innovations into your company? Do sales and marketing personnel bring innovative customer solutions back into your organization when they find them in the field? Is customer service reporting on how users solve their own problems? Consider how to get these important conduits of user information to feed ideas back to the organization. Also examine more formal approaches to inviting user innovators into your process, such as Lead User Design, in the Additional Resources links below.

3. **Harness Communities**. Assist communities of users around your project in better serving their own needs, and gain their help in the process. First, examine the communities of users around your product or service and ensure that they are in appropriate contact with company representatives (ideally those with training in community relations, or even better, those who were originally users themselves). Second, honestly engage the community to help guide it in directions of interest to you, while respecting the needs of users. Finally, consider reaching out directly to communities to find out if you can help motivate them to solve problems of interest or otherwise assist your company.

4. **Open Up**. Consider ways of allowing users to create their own solutions using your product or service. What tools can you provide users with to help them adapt your products or services in new ways? What elements of the product development process can you allow users to control or customize?

SHARE YOUR BEST PRACTICES:

Do you have a best practice for tapping into the innovative power of outside communities? If so, please share it on our blog at Wharton's Center for Leadership and Change Management. http://whartonleadership.wordpress.com/

ADDITIONAL RESOURCES:

- "Tapping Into the Underground," Ethan Mollick, *Sloan Management Review*, July 15, 2005. Offers advice on how to guide and harness user communities.

- *Democratizing Innovation*. Eric von Hippel (MIT Press, 2005), available free online. Provides an overview of user innovation techniques, and guidance on lead user design.

- *Changing the Game: How Video Games are Transforming the Future of Business*. Ethan Mollick and David Edery (FT Press, 2008). Chapter on User Innovation Communities provides ways of using games and other motivating approaches to take advantage of communities.

- "How to Manage Outside Innovation," Karim R. Lakhani, and Kevin J. Boudreau, *MIT Sloan Management Review*, Vol. 50, No. 4 (Summer 2009). Explains when to use communities and when to use contests to fully take advantage of user innovation.

- Ethan Mollick teaches innovation and entrepreneurship in Wharton's *The Leadership Edge: Strategies for the New Leader,* a program for new leaders held at Wharton's San Francisco campus, as well as other Executive Education programs on innovation.

ABOUT NANO TOOLS:

Nano Tools for Leaders® was conceived and developed by Deb Giffen, MCC, Director of Innovative Learning Solutions at Wharton Executive Education. It is jointly sponsored by Wharton Executive Education and Wharton's Center for Leadership and Change Management, Wharton Professor of Management Michael Useem, Director. Nano Tools Academic Director, Professor Adam Grant.