Usability for the Masses

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The biggest problem facing the usability field is how to scale up massively so that we can impact all the user interface designs in the world. How big is this challenge? As of November 2005, there are about 75 million websites on the Internet. There are also about 30 million intranets inside corporate firewalls. Thus, there are more than 100 million user interface designs, just in the online space.

Add several hundred thousand software applications, dozens of cell phone manufacturers, and thousands of assorted consumer electronics products, and we have even more UI design to cover, many with quite esoteric and unique requirements.

Granted, many of the websites are personal sites that are only intended for the owner's closest friends. These designs may be seen purely as a personal expression and not as user experiences in the traditional sense of third-party users trying to understand a design. Still, there are probably about 70 million professional user interface designs in the world that are intended to serve the customers of a business, government agency, or a non-profit organization. If these UIs do not have good usability, much money will be lost.

To help with 70 million design projects, there are maybe 10,000 usability professionals in the world. It is clear that traditional methods simply do not scale to allow this minuscule personnel to support all the projects.

Currently, the main solution to the lack of usability staff is to have almost all design projects proceed without usability. The vast majority of user interface design decisions in the world are made based on the designer's personal taste. If we are lucky, the designer may venture a guess at users' needs, but that is as far as it goes.

Assume that we win the battle to convince management that they will get twice as much out of a project if it is designed for usability. The ROI data is very clear, at least for websites, which usually more than doubles sales when usability is improved. Once this is accepted, then what? If 70 million projects want usability, how can we serve them?

There are two obvious strategies for solving the problem.

The first solution is to continue reliance on traditional usability methods and scale up the number of usability professionals. Let's say that each person can support 70 projects. That is quite a burden, but websites and intranets get redesigned only every third year, so supporting 70 projects in total probably translates into working on two projects per month. It takes about a week to do a simple usability study, so two projects per month translates into two to three iterations of usability evaluations for each design project. Not much, and we haven't allocated time for field studies, but a good usability professional can do a decent job with three quick rounds per design.

So far, my analysis sounds promising, until we realize that 70 projects per usability professional translates into a need for a million usability professionals in order to handle 70 million design projects. In other words, we will need to scale up by a factor of 100 in terms of available personnel.

Can this be done? My own company has trained 11,600 people in usability over the last five years, and we have probably had an average of 10 people on staff during this time (fewer in the beginning, more now). Thus, we have been able to scale by a factor of 1,160, or almost twelve times the required amount. It sounds like the challenge of getting a million usability professionals should be easy to meet.

Not so fast. Yes, we have trained 11,600 people in usability, but that does not make them usability professionals in the sense of a dedicated resource. Many of these people only do usability as a part-time activity, spending most of their time on interaction design, visual design, information architecture, content creation, programming, or Internet marketing.

This point leads me to the second solution, which I think is the more promising one: to expand usability beyond the usability professionals. If everybody needs usability, then everybody should do usability.

We may need 50 million people who know some usability, but I think that is easier to achieve than getting one million people who are full-time usability experts.

How can we package usability so that it can be fruitfully applied by swarming masses of part-timers?

My own answer lies in extending the work on discount usability engineering to create ultra-discounted methods. I think we have had good success with going beyond general usability heuristics to more specific usability guidelines that are easier to apply because they are more prescriptive. Simplified user testing has had more modest success: no matter how easy, quick, and cheap we make user testing, most companies still prefer to avoid it. Even so, there are more companies conducting user testing every year, so we are moving in the right direction.

Usability needs to be simplified even more and made even more actionable. There is a full research agenda here, and we better get started finding the answers, because it is already too late.

About the author:

Jakob Nielsen, Ph.D. is principal of Nielsen Norman Group (www.nngroup.com), a user research firm. His website is at www.useit.com. He is the author of several best-selling books, including *Usability Engineering*, *Designing Web Usability: The Practice of Simplicity*, and *Homepage Usability: 50 Websites Deconstructed*. He holds 78 United States patents, mainly on ways of making the Internet easier to use. Dr. Nielsen is a member of the advisory board of the JUS.