Crowdsourced Usability Testing
7 tips on launching an intuitive application
White Paper

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7 Tips on Launching an Intuitive Application

Table of Contents

- Introduction .................................................. 3
  - Usability Testing Challenges ......................... 3
  - De-Prioritization of Usability ....................... 3
  - What’s Next? .............................................. 3

- Main Body .................................................. 4
  1. The Goal of Usability Testing ....................... 5
  2. Testing Methods ........................................ 5
  3. In-House Usability ...................................... 5
  4. QA Testing ............................................... 6
  5. Large Scale Customer Surveys ...................... 7
  6. Crowdsourced Usability Testing ................. 7
  7. How It Works .......................................... 8
  8. Usability Testing Tips ............................... 10

- About uTest .............................................. 11

“It’s not good enough to just keep producing technology with no notion of whether it’s going to be useful. You have to create stuff that people really want, rather than create stuff just because you can.”

- Genevieve Bell, head of Intel’s USA User Experience Group

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Usability Testing Challenges

The De-Prioritization of Usability Testing

Few software applications – whether web, desktop or mobile – are launched without some sort of compromise being made along the way. Development teams may decide to postpone certain features until the next release; they might neglect thorough regression testing, load testing or any number of strategically important tasks. Given that they face tighter deadlines, dwindling budgets, and a host of other obstacles, tough choices sometimes have to be made.

Perhaps the most short-sided decision made by today’s software companies is the de-prioritization of usability testing. Still largely perceived as an expensive, time-consuming activity, usability testing has been one of the first tasks to be left on the cutting room floor.

A decade or two ago, usability studies easily cost tens of thousands of dollars, sometimes even more than $100,000. It took months to complete them. But over time, usability testing approaches have become more ‘discounted’, a term coined by and evangelized by usability guru Jakob Nielsen. Usability testing has finally adapted to the realistic schedules and budgets of companies and products.

Today, an informative round of user testing can be carried out in as little as 10 days, producing results that not only provide benchmarks, but also allow for immediate turnaround and implementation of suggested changes, thereby improving the usability in a much shorter time-frame. Best of all, it no longer breaks the budget of startups and small businesses – sectors that had historically been priced out of these services.

Usability Testing: What’s Next?

Although these trends are encouraging, usability testing is still widely misperceived as an unaffordable luxury, as companies continue to picture the fancy labs and the six-figure fees.

The purpose of this brief whitepaper will be three-fold. First, it will address the fundamental goals of usability testing. Second, it will identify three common approaches to usability – approaches your company may already be implementing – and explain their respective shortcomings in terms of time, cost, and the quality. Lastly, this whitepaper will outline how innovations in crowdsourcing have dramatically altered the usability landscape. For more on crowdsourced usability testing, be sure to visit www.utest.com/usability-testing.

“Know thy user, and you are not thy user.”

- Arnie Lund
Noted UX expert
The Goal of Usability Testing

The goal of usability testing, simply put, is to make sure that a user can complete the tasks they are expected to complete. More importantly, they must be able to do so easily and without becoming frustrated. A good user experience covers many aspects, including:

- **Functionality**: A product or application must present the user with the appropriate functionality. If the functionality of an application is perceived as incomplete or inadequate, customers may be lost. For instance, a to-do task manager that allows users to enter sub-tasks wins customers over simply because of this feature.

- **Layout & Design**: Good layout and design allow a user to easily complete tasks. If a button is placed in the perceived ‘wrong’ place, users will get frustrated and might look for an alternative product.

- **Interaction**: The flow of an application must be natural and allow the user to easily complete tasks. If a user believes they have been sent to the wrong page and have to manually backtrack in order to find the page for which they were looking, they can become frustrated and abandon the application.

During a typical usability test, target users are asked to complete tasks and provide feedback. The results of the test describe how well the users can complete tasks and provides suggestions on how to improve the user experience. Obviously, an application that is NOT user-friendly can lead to diminished revenue or an increase in costs for the company.

For example, frustrated users may opt to complete their tasks in another way if they cannot figure out the product. They may very well decide to call a customer service representative. Or they may give up after wasting precious time and write a negative review online instead. The goal of usability testing is to make sure these scenarios do not happen.

With usability testing, “close enough” won’t cut it. An application may have a superior architecture, a great set of features, good performance and scalability, along with a number of other positive attributes. However, all of this effort will be wasted if the user experience is inadequate.

“It’s quite normal for e-commerce sites to increase sales by 100% or more as a result of usability. More important, they can probably avoid 9 of 10 returns by eliminating most mis-designed items (a 1000% improvement of the error rate metric).”

- Jakob Nielsen
  The “King of Usability”
Usability Testing Methods

Choices for executing traditional usability tests are somewhat limited. Here’s a quick synopsis of the usability testing approaches a company might choose:

- **In-House Usability Testing**: In-house testing can initially appear to be a cheaper and faster option. However, participants are often ‘too close’ to the application under testing to provide objective feedback. Sure, your dev team understands how to use the application, but *are they your typical end-user?*

- **QA Testing**: Some people might think that thorough QA testing will catch all usability issues – it won’t. While QA testers might occasionally be able to report some usability-related issues, the focus of functional testing is very different from that of usability testing. QA testing is not a replacement for usability testing (and vice versa).

- **Large-Scale Customer Surveys**: With this option, visitors to the site or application are asked to complete a survey at the end of their visit. While large amounts of data can be gathered using this approach, the quality of the data is questionable. Automated surveys are challenging to implement correctly because they offer no control over participant distribution, interfere with visitors actually using your product or website, and lack rigor because participants often abandon the survey or fail to invest enough thought in their responses.

Do these methods fulfill your usability testing needs? Next we’ll have a detailed look at the different approaches companies might adopt to run usability testing, as well as their shortcomings.

“It is far better to adapt the technology to the user than to force the user to adapt to the technology.”

- Larry Marine
  Founder of Intuitive Design & Research

**In-House Usability Testing**

It is true that any form of usability testing is better than nothing. Therefore a quick internal round of testing seems to be the perfect solution, right? Well not really. People who are internal to the company or who are somehow related to the company (e.g. friends and family of employees) are also quite likely to be biased or lack subjectivity in their thinking. Internal employees can have preconceived ideas because they have been too close to the product for too long.

Imagine, for instance, that one page in a website was somehow forgotten during development. When that discovery was made (towards the end of the development cycle) it was implemented in a hurry. Because of this history, some developers might be convinced that this page has the worst usability. Of course, this thinking will bias anyone involved. And chances are this particular page is by no means the worst pain point in the
site. In effect, it might be just fine. But an internal person can have a hard time discerning that.

On the other hand, friends and family who are recruited as test participants may generate biased results because they don’t want to upset anybody or they may be concerned about “not giving the right answer.” In other words, don’t surround yourself with sycophants – and that includes your parents!

So while in-house testing might be the quick and cheap alternative, it lacks the ‘fresh sets of eyes’ that external testing provides.

**Quality Assurance Testing**

Although QA testing is a critical step in launching world-class software, it is NOT usability testing (just as usability testing is not QA testing). Sure, traditional software testers might stumble upon usability issues, but finding usability issues is not their main task or goal (nor should it be).

Application QA, or functional testing, is the process of finding bugs or errors in an application. A tester who specializes in this type of testing will be good at digging deep for bugs or glitches that cause crashes, data corruption, or security vulnerabilities. However, they may not notice or care if the application is difficult to use.

However, QA testing can provide a basic indication about the usability of an application on a very broad level. During functional testing, many important parts of the application will be tested, and the validation of these areas can indicate that an application is well on its way to being usable. For example, testing the following attributes of a web application are the first steps of usability testing:

- User sign-up and login pages
- Mobile functionality
- Online checkouts and other e-commerce actions
- Data search
- Form fields
- Link location & verification
- Browser & OS compatibility

But ultimately, usability and functional testing are two different types of testing, and it is unrealistic to expect one type to pick up the work of the other. Yet that’s exactly what many software companies expect of their QA testers.
Large-Scale Customer Surveys

Large-scale customer surveys are quickly becoming the most popular way to gather customer feedback on website usability from a large number of people. During their visit to a site, customers are asked whether they’d like to participate in a short survey. Often participants are rewarded by being entered into a drawing of some sort. The advantages of this approach are that participant recruitment is quasi-automatic, and participant compensation is inexpensive. In addition, in some cases thousands of participants are taking part in the survey, so it is easy to generate statistically significant data.

There are, however, a number of drawbacks to this popular approach. Studies show that participants in this type of survey generally only have an attention span of about 15 minutes. Plus, participants frequently abandon the survey leaving incomplete information. The participant sub-set might not even be an accurate representation of actual customers, as participants self select and may instead represent the most engaged users.

While statistically significant data is important, it does not provide any answers about ‘why’. It can confirm whether or not a task was easy to complete, but if most participants found the task difficult, there will be no information about why that was the case. If any sections of the customer survey include space for free form comments, interpreting those comments will require a lot of manpower.

Finally, this type of survey can only be conducted on an existing live website. Ideally, usability testing should be completed before the product is released to the general public so that improvements can be made before general release. Good first impressions of your product are critical to keeping customers engaged and happy.

Crowdsourced Usability Testing

An alternative to the methods discussed above is that of survey-based usability testing via a crowdsourcing business model – this is already being successfully applied to QA testing of web, desktop and mobile applications. Coined by Jeff Howe, crowdsourcing - often referred to in QA circles as community-based testing - is defined as:

“The act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call.”

- Edward Tufte
Information Design Guru

In a crowdsourced environment, a global community of possible participants with a large variety of backgrounds is available. While crowdsourcing may look like a chaotic and unaccountable free-for-all, the opposite holds true.
Benefits of Crowdsourced Usability Testing

Let’s revisit the standard approaches to usability testing mentioned earlier, and see where crowdsourcing differs…

**Compared to in-house usability testing**, crowdsourced testing uses unbiased participants who are unaware of any politics or concerns that run within the company.

**Compared to QA testing**, usability testing is a stand-alone test session set apart from QA testing. Usability participants complete tasks in a usability task plan and provide feedback. The task plan can even be written by a usability professional and executed by a large number of usability testers.

**Compared to large-scale surveys**, the participants are more motivated because they belong to a community and have loyalty to the session provider. Because of this commitment, testing sessions can be longer, and usually take about an hour. Participants deliver high-quality feedback, so data validity is very high. A usability professional can have access to the participants should there be any questions during the data analysis phase.

Crowdsourcing features a number of benefits to usability testing:

- **Cost containment**: Crowdsourcing allows managers to utilize lower-cost outside support without being tied down by long-term commitments. The fundamental structure of online communities creates competition, making it more accountable and cost-effective than traditional outsourcing.

- **Dealing with increased complexity**: Significant quality improvement is achieved when development and testing is done across a wider set of platforms, locations and languages. Crowdsourced developers and testers can be easily recruited for each OS, browser, plug-in, mobile handset model and language.

- **Faster time to market**: Crowdsourcing enables you to ramp up or down to meet your needs at any given time. This eliminates delays and staffing constraints that often stifle companies around peak release times. This is especially useful for companies that are working with tight budgets and employing short-cycle development processes like Agile.

- **Meeting expectations for higher quality**: Today’s customers expect applications to be complete and fully functional from day one. Companies that believe that “good enough” is good enough when it comes to quality and usability do so at their own peril.

- **Keeping your customers (and converting your prospects)**: The cost of having bugs or subpar usability has never been higher. Rest assured, if your product has problems, or doesn’t meet expectations, it’s easier than ever for your customers (and prospective customers) to find your competition.

> “Any darn fool can make something complex; it takes a genius to make something simple.”
> - Albert Einstein
Empowering the user: Users that feel that they have a hand in the success of a product will have a stronger emotional commitment to the product and the company. Crowdsourcing blurs the line between software builders (designers, developers and testers) and software users, creating powerful connections and an army of fans.

(From the 8 Essentials of Crowdsourcing)

How It Works
Naturally, since no two software companies are the same, neither are their testing needs. So while this whitepaper cannot give you a complete step-by-step guide, it can provide you with a good idea as to how crowdsourced usability testing actually works.

Here are a few of the more common steps when running crowdsourced usability:

1) A testing manager (from the crowdsourcing company) builds a participant list based on the usability requirements of the customer. A usability professional working with the crowdsourcing company creates a task plan for the testers, or the customer can create their own.

2) Participants are invited to the usability testing cycle, and usability testing begins. Participants then provide their feedback about the application. This process can be completed within hours.

3) The usability professional or testing manager generates a result report based on the participants’ feedback. The results consist of both ratings and comments – not only providing feedback, but also explaining the ‘why’ behind the feedback. Usability suggestions are provided along with the feedback to guide implementation of a better user experience.

The net effect is that companies get access to usability participants from a wide range of demographics. These participants generate a large amount of generally unbiased feedback on a product that can quickly be turned around and implemented to improve the application.
Usability Testing Tips

1. **Mobile Matters** – If your web or desktop application includes a mobile component, it is critical that you include it as part of your usability testing efforts.

2. **Users: Speak Their Language** – More often than not, technical or inappropriate labels and terminology make it into a consumer application. Usability testers will tell you that ‘Discounts’ sounds better than ‘Adjustments’ or they might let you know that your information section is too verbose yet not clear enough. If you expect to roll out your application to non-native speakers, be sure to verify the wording with them as well. If you are planning to roll out your application in multiple languages, use your testers to provide the extra edits on the translation.

3. **Pick Your Tasks Wisely** – Even an hour of usability testing will likely not cover every single possible action on your website. Start by testing those areas of the application that will be used the most or are the most important to your customers.

4. **Deriving Actionable Data** – Usability testers will not only direct your attention to pain points but also (directly and indirectly) provide suggestions about fixing the problems they are uncovering. Remember that their suggestions reflect their own ideas about how to use your application, and may not be the right ones for your customers.

5. **Catch the Low-Hanging Fruit** – Even if you are strapped for time before your application goes out of the door, taking a little time to implement the low-hanging fruit you gained from usability testing will make a huge difference.

6. **Invite Only** – You don’t need to invite a large number of participants to get good results. While you may be inclined to gather as much feedback from as many participants as possible, it is better to use fewer participants and run two rounds of testing. Many usability issues can be discovered by only a few users. Using 15 to 20 survey-based participants will provide you with a large number of usability responses as well as a reasonable sample size.

7. **Be Prepared** – Present usability users with a working site for best results: if you want to get the most out of the usability testing, wait until your site is functionally stable. There is nothing more disappointing than a usability study during which users barely got a sense of the application because they constantly ran into functional bugs.
About uTest

uTest provides in-the-wild testing services that span the entire software development lifecycle – including functional, security, load, localization and usability testing. The company’s community of 45,000+ professional testers from 180 countries put web, mobile and desktop applications through their paces by testing on real devices under real-world conditions.

Thousands of companies -- from startups to industry-leading brands – rely on uTest as a critical component of their testing processes for fast, reliable, and cost-effective testing results.

More info is available at [www.utest.com](http://www.utest.com) or [blog.utest.com](http://blog.utest.com), or you can watch a brief online demo at [www.utest.com/demo](http://www.utest.com/demo).