Crowdsourcing App Testing

Eight Ways to Launch High Quality Digital Experiences
and Get to Market Faster with the Crowd

WHITEPAPER

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Today's Staffing Options for Software Development and Testing

Software executives and corporate IT managers have a number of options for staffing and sourcing the various tasks of software development. Design, development and testing can be accomplished through a combination of three staffing methods:

- *In-house staff*
- *Outsourcing firms*
- *Crowdsourcing communities*

These three options have historically been viewed by some as an "either/or" choice. But because of technology and innovative business models, this is no longer the case. This shift has empowered progressive software company execs to make the best decisions on a per-project basis. Software teams can now build in-house expertise while maintaining the operational flexibility that comes with external providers.

The emergence of crowdsourcing has triggered this increased flexibility. The relative pros and cons of standard outsourcing – which typically involves the displacement of large-scale project resources, lack of accountability, and hidden management costs – are well known to most execs. In this whitepaper, we focus instead on how crowdsourcing can complement in-house resources at a practical, tactical level.

The task and opportunity for executives today is to get the most bang for their buck by building in-house strengths around key employees and core competencies, while also tapping into resources like crowdsourcing to augment in-house personnel and reduce fixed costs.

Driving Forces Behind Crowdsourcing

Crowdsourcing enables firms to tap into the creativity and diversity of a global community of skilled professionals. The trend has been adopted across many industries, including graphic design, development, testing, usability and R&D.

Much of the inspiration grew out of the success of the Open Source movement. So it's no surprise that software enterprises have successfully adopted crowdsourcing for the development and testing of commercial applications for web, desktop, mobile, and connected device platforms.

By bringing in diverse and talented professionals on a scalable basis, your applications can reach market faster, with higher levels of quality and at a lower cost.

"Because crowdsourcing is built from the open source template, any company looking to leverage professionals has the advantage of an audience already familiar with the basic idea of community production."

-Jeff Howe, Journalist

Communities of skilled professionals who bring fresh eyes and ideas, and who care about their online reputations, can be used (and are being used by some of the most successful companies in the world) to complement in-house resources to build, test and launch world-class digital properties.

Key Benefits from Crowdsourcing

The numerous benefits of crowdsourcing software development and testing include:

- *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 to fit every OS, browser, plug-in, mobile handset model and language need.*

- *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 and continuous integration.*

- *Meeting expectations for higher quality*: *Today's customers expect digital properties to be complete and fully functional from day one. The era of 'beta-testing' as a substitute for QA is long gone. 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 user expectations, it's easier than ever for your customers (and prospective customers) to abandon your digital property in favor of your competition.*

The Eight Essentials: Launching Better Digital Experiences with Crowdsourcing

The beauty of crowdsourcing is that it does not require an "either/or" commitment. Software company executives can easily incorporate and experiment with a community on a trial basis, and strike a balance between in-house personnel and community staffing. The following list of tips describes how to maximize the benefits of crowdsourcing for digital property development and testing.

1. Build your dream team

The best online communities of professionals serve as a perfect complement to in-house teams. Build a team that blends the strengths of your full-time employees (brand, IP, reputation) with those of the community (flexibility, cost-effectiveness, test coverage across locations, language and platforms).

Having this blend of staffing allows you to scale your resources up and down in a fluid manner, meeting tight deadlines during peak periods, while controlling

> *"Applause found two 'show-stopper' bugs that would have killed our release. In just 12 hours we had the feedback we needed to recreate and fix the bugs and release a stable product that captured significant market share."*
>
> -Sagi Richberg, CEO at GroupGain

costs during slow periods. The end result of this scalable community-driven workforce is faster time-to-market and overall savings.

2. Independent thought is the lifeblood of creativity

With a diverse community of professionals that transcends location and background, you can avoid the group-think that often stifles internal teams. When a team of any size is following a leader, it will often reflect the leadership voice.

The consensus view from inside your company can drown out objections and alternate points of view. This is often an unintended byproduct of strong leadership. Again, accessing a global community brings diverse opinions and experience (as well as fresh eyes), which can result in creative development solutions, more complete testing coverage and feedback more closely aligned with your end users.

3. Aggregate small bits of information into a knowledge base

The information and feedback generated by a crowd of professionals can be aggregated into high-value business knowledge. Software firms of all sizes can use data tagging and statistical aggregation to identify trends, which is a goldmine for management decision making.

In addition to guiding your product design and development roadmap, companies can expose this information to their customers and prospects. By showing the number of users, platform types and geographic coverage that your product serves, you instantly establish credibility in the market.

4. Let their reputation precede them

To get the most out of crowdsourcing, find communities that enable members to build their online reputation. This increases accountability and performance by rewarding good testing and punishing bad behavior. Performance ratings and recognition levels enable your firm to choose the right professionals, and incentivize the desired behavior with members of the community.

5. Use crowd diversity to mirror real-world conditions

Another benefit of crowdsourced testing is that your product is being validated in the hands and minds of users in real-world conditions. Select the members of the community that best match your user base: by location, language, expertise and technology platform. For the best results and the most benefits, the community that works on your digital property should match the users you are targeting.

"There are two types of currency in an online community: money and reputation. Of course, money talks, but the transparency of crowdsourcing motivates people to build strong reputations. This is the only way they can earn future work and the respect of their peers."

-Matt Johnston, CMO at Applause

Internal teams – even those comprised of smart, hungry, talented people – are often less effective at generating new product ideas and offering objective feedback because of the fact that they're always together and immersed in your company culture. Cross-pollinating groups with a variety of backgrounds

and perspectives naturally generates a wider range of ideas.

Marketers and product managers can use this feedback as another way to solicit ideas and drive usability and new feature design. Of course, the day-to-day tasks of developing code and testing digital properties cannot be ignored. But if this is your only goal, you may be missing an opportunity to gain even more from the crowd.

6. Gain more than you bargained for

Companies who view crowdsourcing as just another way to outsource will often experience results similar to those of traditional outsourcing. This isn't a bad thing, as it can still provide tremendous cost savings, increased efficiencies and enable your in-house teams to focus on areas that are mission critical.

"The Applause model lets us scale correctly. I don't have to hire and manage a whole QA staff. We never miss a step, since we start a test cycle when we leave for the weekend, and test results are waiting for us when we come back in on Monday."

-James McElhiney, CTO at Gazelle

But the potential of crowdsourcing is much greater. Companies that truly engage their online communities and tap into the passion and creativity within them often find that their crowd can become an engine of new ideas, buzz and overall awareness.

7. Not all crowds are created equal

When selecting a community to work on your products, choose wisely. Some

communities tend to be noisy, with lots of opinionating but not much actual productive work. Choose a community that has proven success and exposes the past performance and reputation of community members.

Also look for those communities that can point to clear, demonstrable wins – other customers that they've worked with to solve real business problems.

Communities that offer user feedback and research services also should have seasoned experts leading the way with delivering comprehensive and actionable results to customers. The difference in the quality of the results provided by a usability expert with 10+ years of industry experience and those provided by a junior usability researcher with minimal industry experience is tremendous.

Another important measurement for community sites is whether they include tools that help you manage the ongoing process. It is easy to build a marketplace website that connects an employer with a freelance worker, but this alone does not provide ongoing community-building. It is simply a fancy employment agency.

8. You still call the shots

Crowdsourcing does not change a fundamental truth of software design, development and testing: Effective, detailed communication and project management is key to any successful project. This is true in managing in-house resources or outsourced partners, and crowdsourcing is no exception.

So assign an internal project owner to keep the information flowing and manage the process. While you don't have to micro-manage the crowd in terms of tactical execution and idea generation, strong management and executive buy-in enables processes, plans and deadlines to still remain firm when using crowdsourcing.

About Applause

Applause empowers companies to deliver great digital experiences (DX) - across web, mobile and IoT as well as brick-and-mortar - spanning every customer touchpoint.

Applause delivers unmatched in-the-wild testing, user feedback and research solutions by utilizing its DX platform to manage communities around the world. This provides brands with the real-world insights they need to achieve omni-channel success across demographics, locations, devices and operating systems that match their user base.

Thousands of companies - including Google, FOX, Best Buy, BMW, PayPal and Runkeeper - rely on Applause to ensure great digital experiences for their customers. Learn more at www.applause.com.

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