

////////////////////////////////////

ONLINE DESIGN CONTESTS: A NETWORK OF INSPIRATION FOR DESIGNERS

Brian Tidball / Ingrid Mulder / Pieter Jan Stappers

ID-StudioLab, Delft University of Technology
Landbergstraat 15, 2628CE Delft, The Netherlands
b.e.tidball / i.j.mulder / p.j.stappers @tudelft.nl

ABSTRACT

The phenomenon of crowdsourcing has drawn the attention of the design community, but is primarily regarded as a way to 'outsource design work.' This study explores the use of one form of crowdsourcing - online design contests - as a source for gathering information and inspiration for designers. The results demonstrate inspirational value in hosting a crowdsourced design contest by creating content for evoking discussion within the design team, opening a line of communication, and highlighting the benefits of the hosting process, beyond outsourcing a solution.

Key words: Design Contests, Crowdsourcing, Inspiration, Design Research, Design Tool.

INTRODUCTION

The past five years have seen a revolution in online applications that allow people to create and share information. Among these, *crowdsourcing* (Howe, 2006) activities are widely used as an online production model for completing work or developing solutions. This production model is having a transformative effect on many disciplines; and the practice of design is no exception.

Research on crowdsourcing is building a foundational understanding of who participates and why. Despite differences between platforms, people who contribute to crowdsourcing activities are generally members of the Internet Elite: educated, 30-something, upper-middle class, and highly active online (Brabham, 2008; Lakhani & Panetta, 2007; Ross, Irani, Silberman, Zaldivar & Tomlinson, 2010). Why they participate is a complex mix of extrinsic

and intrinsic motivations including rewards (often money), skill use or development, competition, creative outlet, attention, or simply fun (Brzozowski, Sandholm & Hogg, 2009; Kaufmann, Schulze & Veit, 2011). And if the cost of participation is low enough, motivations become trivial (Haythornthwaite, 2009).

Additionally, a growing number of examples demonstrate the diversity of what the crowd produces including proofreading, image tagging, drawings, music videos, and even complex engineering solutions (Albors, Ramos, & Hervás, 2008; Bernstein, Little, Miller et al. 2010; Howe, 2006). Specific to design, research is beginning to unite crowd-sourcing with existing user-centered tools; from remote user evaluations to human subjects research (Kittur, Chi & Suh, 2008; Schmidt, 2010). Researchers are also having success engaging the crowd in innovation and creative projects (von Hippel & Katz, 2002; Soukhoroukova, 2007). This accumulated research provides a substantial foundation to explore the benefits of crowdsourcing and how it can be leveraged to benefit and transform design practice.

Online design contests - a form of crowdsourcing - are increasingly popular, allowing organizations access to creative workers who compete to provide affordable logo, branding, or web design, for a fraction of the cost of commissioning a professional designer or firm. Beyond producing a winning design, a design contest also provides the habitually ignored opportunity to open a line of communication with a crowd of creative talent and the cumulative collection of examples they produce.

Interestingly these byproducts may provide value as an opportunity to engage contributors and as a

collection of examples for informing and inspiring design. The use of image collections (Keller, 2004; Wahid, 2010) and examples (Herring, 2009; Lee, 2010) play a critical role in the ideation, exploration, and rational in the design process. The collection of designs generated by a competition is a tailor-made source of examples. Additionally, the engagement of contributors in creative activities appears to follow a similar process used by generative research methods to elicit user insights and contextual information (Sanders, 2000; Sleeswijk Visser, Stappers, van der Lugt & Sanders, 2005) by transferring some of the initiative and control over to the contributors, in this way their intrinsic knowledge (related to users and context) may be expressed in their designs. Unlike field studies or face-to-face user research methods, online platforms leverage the efficiencies of asynchronous and distributed communication provided by the Internet. By exploring this combination of benefits there may be new opportunities to efficiently gather externally generated insights for the purpose of informing and inspiring design.

To explore these benefits we developed a framework depicting the crowdsourcing process (see Figure 1) as it relates to informing the design process, with special attention to the interactions between actors. In this framework bold arrows identify three elements (task description, feedback, and discussion) that provide the potential to benefit the design process.



Figure 1. A framework depicting the crowdsourcing process, including the interactions and actors. The three bold arrows highlight the areas of interest for this study (Task Description, Feedback, and Discussion).

METHOD

The current study is one segment of a larger research project exploring the use of crowdsourcing as a research tool for designers to easily and affordably access information for the human centered design

process. This study focused on two aspects of crowdsourcing as it relates to gathering inspiration and user information for design:

- The interactions and communication between contest hosts and the contributors, as well as the impact this has on the contest and its output.
- The benefits of conducting a design contest, as a source of information and inspiration for designers, including what was learned from hosting a contest and how designers use the results.

Using the framework presented in Figure 1 as a foundation, the authors observed the elements of the process, giving specific attention to interactions between participants and potential sources of information.

CONTEXT

Within the Industrial Design Engineering Faculty at Delft University of Technology, graduate students (with the support of the faculty) are forming an interaction design community. This community will host “4 interaction” an online magazine dedicated to interaction design. This magazine and community needed a logo that will also be used to identify events, publications, and projects associated with the community. To aid the process of creating a logo, the faculty offered the students an opportunity to host an online design competition, to quickly generate a wide variety of logo proposals. This design contest was then studied to develop an understanding of the interactions with contributors and the potential benefits for informing and inspiring the design process.

DATA COLLECTION

The data for this case study were collected from three sources: the contest website, researcher observations, and student experience papers. The contest website (www.hatchwise.com, a popular and active site to host design contests) structured and captured information during the contest including the design brief, the number of contributors, their submissions (logo designs), feedback from the contest hosts, and a few comments between contributors. The lead researcher acted as advisor to two students who hosted the online logo contest. By

providing “how to” support, the researcher was able to observe and document their activities and discussions, primarily capturing preparation activities and discussion of the results. To help document the contest from the host perspective (and to promote a learning experience) each host wrote a paper providing personal insights and reflection on the process and their experiences.

RESULTS

For \$129 the contest developed 120 logo designs (see Figure 2), submitted by 32 contributors. While the contest ran for 10 days, administering it required a little more than 6 hours, divided evenly between preparation, observation and feedback, and synthesis. For this limited effort and expense the student hosts and researchers were pleasantly surprised with both the number and quality of the submissions. They were also surprised by the commitment of some of the contributors, demonstrated by the number of designs submitted, especially one contributor who submitted 31 logos (see far right of Figure 3).

Figure 3 shows the distribution of the number of designs submitted by each contributor, including designs withdrawn prior to the close of the contest. Contributors occasionally withdrew submissions after submitting a revision (20 withdrawn), two additional designs were withdrawn without submitting a redesign, and one was withdrawn due to accusations of “copying” from another contributor.

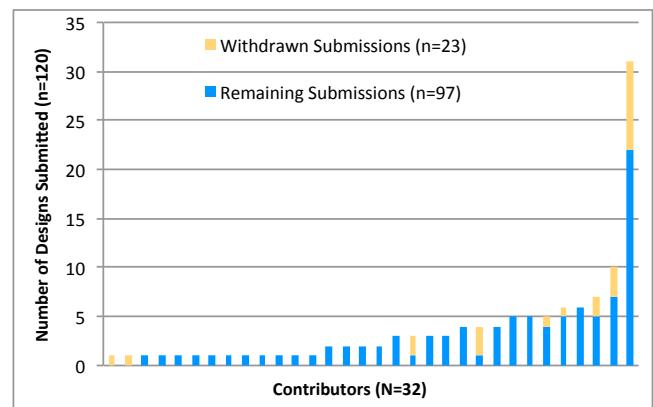


Figure 3. Number of designs submitted (n=120), withdrawn (n=23) and remaining (n=97) per contributor (N=32).

Alongside the designs, an array of comments were captured on the contest website. These comments included ‘thanks’ and constructive comments from the student hosts on the majority of submissions (e.g. “Dear ___, we really like the idea of adding a rounded shape ... it gives it dynamism and makes the logo more complete as a whole.”). From their feedback 11 contributors provided 21 comments of appreciation for the feedback received for their efforts (e.g. “Thanks for the feedback, here are changes, what do you think? There will be more versions if you want...”). In addition a few comments from contributors described their intention/vision of a particular logo (e.g. “I purposely chose the letter N ... what I did is a roman numeral of 4, IV [to make the N]”). While it is not possible to precisely quantify, many of the iterative logo submissions were in response to specific feedback, while others appear to be variations on an idea.



Figure 2. The 97 logos available at the conclusion of the contest (23 of 120 logo submissions were withdrawn during the contest).

Figure 4 shows the distribution of original and iterative logo designs per contributor. The high number of iterative designs highlights a favorable response to feedback, through additional effort refining and resubmitting their designs. Figure 4 also shows that only two contributors produced 3 or more original concepts, indicating a relationship between the number of original concepts and the number of participating contributors.

Researcher observations revealed three unexpected developments during the design contest (developing the design brief, providing feedback, and discussion of the results). These observations are described below and their effects are addressed in the discussion section.

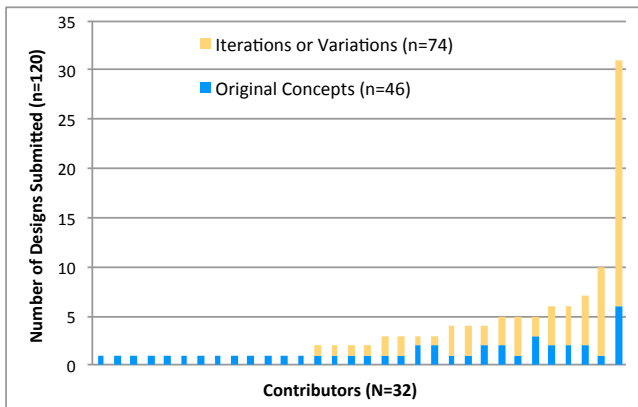


Figure 4. Number of original designs in relation to iterations submitted per contributor (including withdrawn submissions).

Initial observations noted challenges as the student hosts wrote the task description (design brief). Their initial design brief, while clear, provided considerable detail and was highly constraining, reflecting specific ideas they had used in their own initial designs. After this was pointed out and referring them back to the guidance on the contest website, they simplified the brief to clarify their need and avoid stifling the contributor's creativity (since they were seeking inspiration and diverse designs). In the end the brief described the intended use and audience, and included a statement that it should be in the "family" of the university's logo.

The second observation occurred as the contest hosts began providing feedback to contributors during the contest. They were initially apprehensive about providing feedback, but with a little encouragement and following guidance on the website, they provided thanks and constructive criticism for most

of the submissions. When asked later the students confirmed their apprehension "We are used to receiving not giving criticism." They also commented that once they started and received "thanks" for their feedback, it became easier. They later stated that providing feedback strengthened their confidence in their own design knowledge and skills, and helped them think critically about the vision they had for the end result.

The third observation of interest occurred at the end of the contest, when the design team (student hosts, researcher, and a staff graphic designer) met to discuss the results and select a winner. Each had selected their five favorite designs and began the meeting by describing what they liked about each selected design. The team found it difficult to reach a consensus on selecting a winner, but the discussion enabled and evoked by the submissions proved to be highly beneficial. By providing a large and diverse collection of options, these designs gave the team the freedom and content to candidly discuss the branding of their interaction design community and what role the logo can and should play. In the end they did not use the winning design, but the process and resulting discussion provided a wider view of the possibilities, implications, and considerations for developing their logo.

DISCUSSION

The above observations address the areas of interest for this study: the interaction and communication between host and contributors, and the benefits of the process itself.

Communication and interactions with contributing designers occurred in two primary ways: the design brief and feedback during the contest. As described in the results section, the design brief required careful consideration to balance a clear statement of the desired outcome without unnecessarily constraining the skills and creativity of the contributors. The wording of the brief is also key in enticing contributors to participate for motivations other than financial reward (interest in a particular challenge or topic). These factors are related to the quantity of original designs submitted: more contributors, more designs.

In addition to providing a communication link and motivation for participation, the process of developing the design brief provided some additional benefits for the student contest hosts and the design team. As the design team had their own ideas and convictions about what the logo should be it was difficult for them to give up control and let the contributors present their own ideas and creativity. Refining the brief in order to balance needs without stifling creativity, forced the hosts to think critically about their desired outcome. This process of simplifying the instructions, eliminating extraneous details, and communicating their desires encouraged fresh insights and a commitment to what considerations were of central importance to their project.

Feedback provided a key communication channel used to thank contributors for their efforts, provide comments, and encourage refinement of their concepts. Their comments were rewarded with many re-designs and 'thanks' from the contributors. These activities confirm the ability of the contest host to effectively motivate the outcome (designs and re-designs). As demonstrated by the positive responses from contributors, this feedback was appreciated and corroborates its value as added motivation for participation, in the form of praise, recognition, and skill development. A few comments also included details and vision behind some designs. While not utilized in this study, there is a future opportunity to seek and utilize these additional insights from the contributing designers.

The process of providing feedback also provided beneficial. By focusing on providing constructive criticism, it forced the hosts to individually consider how each submission related to their needs and preferences. Unexpectedly it also developed the confidence of the student hosts who were accustomed to receiving, not giving, criticism. By providing feedback they became aware and confident of their own knowledge and skills.

Finally the students and faculty were impressed by the quantity, quality, and diversity of the designs, especially considering the limited effort and expense of hosting the contest (10 days to run, 6 hours of work, and \$129). Interestingly, it was not the logos themselves that were most beneficial, but the

discussion they evoked among the design team. The number, diversity, and anonymity of the designs provided the content and freedom to address many issues concerning what the design should say about the magazine and community, what constituted a good logo for gaining recognition, and the impact the logo would have on the design of the web-magazine and vice versa. This discussion gave the students a much broader understanding of the solution space and more informed view of how to reach their objective.

ETHICAL DIMENSIONS

The approach described in this paper has some complications that need to be considered as research and use of online design contests continues. Already there are discussion concerning the rights and responsibilities of both contributors and hosts concerning fair compensation, inappropriate possibly illegal tasks, intellectual property, as well as information privacy concerns (von Ahn, Maurer, McMillen, Abraham & Blum, 2008; Lakhani, & Panetta, 2007; Schmidt, 2010). If the non-winners contribute substantially to the outcome of the process, do they deserve more recognition or remuneration then the "constructive feedback" they receive now? Or is the growing popularity of these online contests proof that contributors receive sufficient fulfillment? This problem is not new. In traditional contests, the spinoff value of the multitude of ideas generated has been an important - if downplayed - motivator for organizations to hold contests. With the increasing popularity and visibility of online crowdsourced competitions, ethical concerns deserve renewed attention and further study.

CONCLUSIONS

By observing and analyzing the process of conducting the design contest we see some of the difficulties designers may face when hosting their own contests, and indications of how the contest process contributes to the design process itself. Central to these benefits, is the communication (although constrained by the contest platform) between host and contributors. There are important considerations for the design brief for attracting and motivating

participation. In addition the feedback loop provides opportunities to reward, motivate, develop and refine the skills of both the host and contributors. And finally the discussion evoked while selecting a winner from the numerous submissions was greatly benefitted by the content and freedom to critically consider key elements of the design.

In addition to the benefits, this study also provides insights and considerations into other crowdsourcing activities. It highlights the importance of communication among all participants, and stresses the value of different forms of motivation. But equally important are the often-ignored byproducts of hosting a crowdsourcing activity: in developing the task description, engaging in feedback, and synthesis of the results. This suggests the value of design contests and crowdsourcing activities may go far beyond accessing external talent, by providing a framework for processing and discussing information and both content and *sparring partners*, not just outsourced workers.

ACKNOWLEDGMENTS

The authors would like to thank Radoslav Gulekov and Julia Calbeto for their efforts hosting and providing insights about design contest. And the graphic design expertise and guidance provided by Corrie van der Lelie was deeply appreciated.

REFERENCES

von Ahn, L., Maurer, B., McMillen, C., Abraham, D. and Blum, M. (2008) reCAPTCHA: Human-Based Character Recognition via Web Security Measures. *Science*. September 2008.

Albors, J., Ramos, J.C., and Hervas, J.L. (2008) New learning network paradigms: Communities of objectives, crowdsourcing,

wikis and open source *International Journal of Information Management*, 28, 194-202.

Bernstein, M.S., Little, G., Miller, R.C., Hartmann, B., Ackerman, M.S., Karger D.R., Crowell, D. and Panovich, K. (2010) Soylent: a word processor with a crowd inside. In *Proceedings of the 23rd annual ACM symposium on User interface software and technology (UIST'10)*, New York, NY, USA.

Brabham, D.C. (2008) Crowdsourcing as a model for problem solving: An introduction and cases. *Convergence*, 14(1), 75-90.

Brzozowski, M.J., Sandholm, T. and Hogg, T. (2009) Effects of Feedback and Peer Pressure on Contributions to Enterprise Social Media. In *Proceedings of GROUP'09*, ACM Press, 61-70.

Haythornthwaite, C. (2009) Crowds and Communities: Light and Heavyweight Models of Peer Production, In *Proceedings HICSS '09. 42nd Hawaii International Conference on System Sciences*, p.1-10.

von Hippel, E. and Katz, R. (2002) Shifting Innovation to Users Via Toolkits, *Management Science* 48(7), 821-833.

Howe, J. (2006) The Rise of Crowdsourcing. *Wired*, volume 14(6), <http://www.wired.com/wired/archive/14.06/crowds.html>.

Kaufmann, N., Schulze, T. & Veit, D. (2011). More than fun and money. Worker Motivation in Crowdsourcing - A Study on Mechanical Turk. In *Proceedings AMCIS 2011*.

Kittur, A, Chi, E. H, and Suh, B. (2008) Crowdsourcing user studies with Mechanical Turk. *Proc. CHI 2008*, ACM Press, 453-456.

Lakhani, K. R. and Panetta, J. A. (2007) The Principles of Distributed Innovation. *Innovations: Technology, Governance, Globalization* 2(3), 97-112.

Ross, J., Irani, L. Silberman, M.S, Zaldivar A. and Tomlinson, B. (2010) Who are the crowdworkers?: shifting demographics in mechanical turk. In *Proceedings of the 28th of the International Conference on Human Factors in Computing Systems*. Atlanta, Georgia, USA, ACM.

Sanders, E.B.-N. (2000) Generative Tools for CoDesigning. *Collaborative Design*, London: Springer-Verlag, 3-9.

Schmidt, L.A. (2010) Crowdsourcing for Human Subjects Research, In *Proceedings of CrowdConf 2010*, San Francisco, CA.

Sleeswijk Visser, F., Stappers, P.J., van der Lugt, R. and Sanders, E.B.-N. (2005) Contextmapping: Experiences from Practice. *CoDesign*, 1(2), 119-149.

Soukhoroukova, A. (2007) *Creating and Evaluating New Product Ideas with Idea Markets*, PhD Thesis, Universität Passau.