CrowdCamp

Rapidly Iterating Ideas Related to Collective Intelligence & Crowdsourcing
A CHI 2012 Workshop

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Abstract

The field of collective intelligence – encompassing aspects of crowdsourcing, human computation, and social computing – is having tremendous impact on our lives, and the fields are rapidly growing. We propose a hands-on event that takes the main benefits of a workshop – provocative discussion and community building – and allows time to focus on developing ideas into actual outputs: experiment designs, in-depth thoughts on wicked problems, paper or coded prototypes. We will bring together researchers to discuss future visions and make tangible headway on those visions, as well as seeding collaboration. The outputs from brainstorming, discussion, and building will persist after the workshop for attendees and the community to view, and will be written up.

Keywords

collective intelligence, crowdsourcing, human computation, social computing, workshop

Topic and Rationale

The field of collective intelligence—encompassing aspects of human computation, crowdsourcing, and social computing—is having tremendous impact on our

lives, from building history's largest encyclopedia, to interactive systems powered by crowds [2]. We are studying and building systems to better understand participation and interaction, and push the boundaries of what is possible in these fast-growing areas. To effectively do so, we draw from diverse disciplines including computer science, business, economics, and design. Yet few opportunities exist to form the interdisciplinary teams necessary for this work and to rapidly test new ideas. This proposal addresses this challenge.

We propose a 2-day event modeled on collaborative workshops (hackfests, BarCamps, and similar formats participated in at INRIA and Microsoft Live Labs), where the emphasis is on idea generation and prototyping, while keeping the traditional workshop benefits of provocative discussion and community building. Possible outputs include an experiment design, in-depth thoughts on wicked problems, or paper or coded prototypes. We hope to bring together a diverse set of researchers, expose them to a broad range of ideas, actively engage them in starting a project, and sow the seeds for future collaboration. At the very least there'll be donuts.

We aim to attract researchers who:

- Study platforms and projects to understand motivation and participation

- Experiment with mechanisms for increased engagement or quality

- Build innovative systems *for* crowds (friends, or communities) or powered *by* crowds

The CHI conference provides an ideal opportunity to gather both system studiers and builders at a convenient time and place. Initial discussions will provide an overview of the field and attendees will be invited to express future visions, propose ideas they might like to pursue but need collaborators for, even bring a dataset or initial findings for collaborative analysis.

We anticipate considerable interest in this workshop from the CHI community and beyond. The CHI 2011 Crowdsourcing workshop had 60 participants (with attendance by computer scientists, management scholars, and designers), and this year's Human Computation conference (with a significant AI focus) had 100 attendees. By advertising broadly we hope to engage industry researchers, as well as related disciplines such as business, sociology, and economics.

WORKSHOP PLAN

This two-day workshop will also involve additional activities organized remotely both before and after the workshop date.

Preparatory Activities

We ask potential participants to submit:

- Two to four ideas of broad future visions, specific projects they are pursuing or would like to brainstorm

- A skillset listing and interest in working on a collaborative research team. (For example, through an example of a project on which they recently worked, and how they best function in teams.)

- A brief personal bio. (Applications should be single-authored, not from a team. We highly encourage teamwork on the day, but would like social interaction, idea iteration, and group formation at the event.)

Participants will be selected based on diversity of skills and visions. Accepted participants will be asked to read (anonymized) ideas, and write a short blog post about themselves and highlight the ideas they found particularly interesting.

In order to forge a deep tie to research issues, we particularly highlight themes of:

- Integrating social media and crowdsourcing into our everyday tasks and daily lives

- Moving crowdsourcing to 'higher order' cognition, i.e., more complex and creative tasks

- Challenges and opportunities of programming a crowd

Prototype Readiness
In order to make it as easy as possible for those interested in building, we suggest coming to the workshop ready with your usual IDEs, APIs, code snippets, market accounts if pilot testing, etc. Because of the dynamic nature of the workshop, we will leave language and platform decisions to each team.

Workshop Day One
Rotating Introductions. There will be three-person chats introducing and discussing research interests, rotating every 10 minutes. These will be informed and backed up by a projected list of participants and the accepted ideas.

Brainstorming. Researchers will form groups by broad topic area and draw out themes, challenges and potential projects. We will rotate groups once to encourage social interaction and spreading of ideas.

For example, one group might consider useful applications of collective intelligence in our daily lives:
- Geographic and location based crowdsourcing
- Using a crowd to create materials
- Synthesis, analysis or feedback on existing materials
- Ongoing and background tasks
- Inducing truth telling for subjective questions
- Embedded within our everyday workflows

Another group might consider mechanisms for achieving more complex and creative tasks:
- Crowds on demand
- Synchronous and asynchronous collaboration
- Coordination and management techniques

Another group might consider some of the thorny problems we face, based on current platforms and tools:
- What aspects of volunteer communities hold true for paid crowds?
- What are the limits of market places, and what might future platforms offer?
- What aspects of other disciplines are relevant to collective intelligence and crowdsourcing (e.g., economics, organizational behavior), and how might those aspects be translated and used?

Project Listing. We will list brainstormed areas and projects and ask people to denote their interest. Final grouping or merging of projects will be dependent on

number of participants and ideas, but to optimize interaction and work done we aim for groups of five.

Work Commences! After lunch, day one will be dedicated group time to get to know team members and flesh out project ideas, then start work on the project. Deliverables might include in-depth analyses, experiment designs, or a (paper or coded) prototype.

Dinner. The day will end with an informal dinner.

Workshop Day Two
Team Work. The majority of the day will be spent engaged in discussion or building. The goal will be to complete a first 'hack' of an idea by the end of the workshop. This might mean code for general purpose (e.g., real-time visualization of tasks) or for specific questions; an experimental framework (e.g., application of management or creative ideation principles to crowd work); or an analytic framework.

Presentation and Discussion. At the end of the day, each group will present their work, with opportunity for critique and discussion. We will set up collaboration structures for groups to continue working after CHI. Our goal is for several of the projects from CrowdCamp to continue progressing and eventually become future CHI papers.

Follow Up and Dissemination
We will make available demonstrations or datasets worked on, collate these and brainstormed ideas and discussions into a special feature (e.g., in Interactions or XRDS), and encourage reflections from participants at the crowdresearch.org blog.

Authorship and IRB
To encourage people to contribute broadly and keep ideas flowing freely we will discuss authorship and credit, suggesting a model like the Polymath projects with group authorship [1]. We do not anticipate any projects needing IRB approval, rather focusing on designs, prototypes, or pilot studies.

References
[1]   Gowers, T., & Nielsen, M. Massively collaborative mathematics. *Nature* 461.7266 (14, 2009).

[2]   Quinn, A. J., Bederson, B. B. Human Computation: A Survey and Taxonomy of a Growing Field. *Proc. CHI 2011.*