Preliminary Plan for Dagstuhl Seminar on "Cloud-Based Software Crowdsourcing"

http://www.dagstuhl.de/en/program/calendar/semhp/?semnr=13362

September 1 – 4, 2013, Dagstuhl Seminar 13362

1. Organize the workshop in parallel with the book project
    a. Proposed book organization:
        i. Introduction: definition, scope, needs, issues, and significance
        ii. Software Crowdsourcing Models: architecture, processes, and platforms
        iii. Software Crowdsourcing Theories: economic model, game theory, and information theory
    b. Workshop will consist of keynote speech, presentations, and discussions.
        i. First day morning we have presentations, in the afternoon we will have group discussions.
        ii. Second day morning we have a keynote presentation, followed by group discussions.
        iii. 3rd day we will summarize and write our reports
    c. Book development process
        i. Editors will send out the Wikipedia website to everyone to contribute
        ii. Editors will send out Springer template to authors
        iii. Call for preliminary paper drafts, due on August 15, each paper should have at least 10 pages, at most 40 pages
        iv. Request for conference presentation due on August 31
        v. Paper due on October 20 after the workshop
        vi. Feedback to authors by November 20
        vii. Final paper due on December 15
        viii. Copy editor comments due by January 1, 2014
        ix. Manuscript upload to publisher due by January 15, 2014
    d. Book chapter review process
        i. All participants and their colleagues are encouraged to submit their papers to the book. The book welcomes authors who cannot make to the workshop.
        ii. Each paper will have at least 3 reviews
        iii. All authors will participate in the review, but the review will be confidential
        iv. Authors will have a chance to revise the article
        v. Authors will have the final chance to revise the article after copy editing.
2. Wikipedia entries
    a. Wikipedia entries will correspond to the book chapters. All the authors are encouraged to contribute to the Wikipedia entry on "crowdsourcing software development". http://en.wikipedia.org/wiki/Crowdsourcing_software_development
    b. Create the web site www.softwarecrowdsourcing.org for community
3. Workshop presentation

a. Daily Schedule

The seminar starts on Sep 1, with the evening meetings. Participants are advised to arrive at Dagstuhl on Sunday Sep 1.

On Sep 2-3, we will follow this agenda:

Sep 2

1) 7:30AM-9:00AM Breakfast
2) 9:00AM- 9:30AM Welcome and scope definition
3) 9:40 AM – 10:40 AM paper presentations (5 minutes per talk) 6 talks
4) 10:40AM-11:00 AM coffee break
5) 11:00 AM – 12:30AM paper presentations (5 minutes per talk) 9 talks
6) 12:30PM – 1:30PM Lunch
7) 2:00 PM – 3:30 PM First group discussions
8) 3:30 PM – 4:00 PM Coffee break
9) 4:00 PM -- 5:30 PM First group discussions
10) 6:00 PM -- 7:00 PM Dinner

Sep 3

11) 7:30AM-9:00AM Breakfast
12) 9:00AM-10:00AM keynote speech
13) 10:00AM – 10:30AM 1st group discussions
14) 10:30AM-10:45 AM coffee break
15) 10:45AM-11:30PM summary of 1st group discussions
16) 11:30AM – 12:30AM 2nd group discussions
17) 12:30PM-1:30PM lunch
18) 2:00PM – 3:30PM 2nd group discussion discussions
19) 3:30PM – 4:00 PM coffee break

Group picture time

20) 4:00PM - 5:30PM joint discussion with the other Crowdsourcing seminar

"Crowdsourcing: From Theory to Practice and Long-Term Perspectives"

Sep 4

21) 7:30AM-9:00AM Breakfast
22) 9:00 AM – 10:30 Summary of 2nd group discussions
23) 10:40 to 12:00 Summary of workshop

Wrap up the seminar

b. Discussion sessions in the afternoon, 2 to 3 sessions with
   i. Topics from the workshop and may add/modify/delete topics during the workshop
   ii. Each session has at least one leader and two note takers.

iii. Distribute notes at Google Doc for sharing and contribution
iv. Submit summary of discussions to the Dagstuhl group
v. Aim to produce a joint paper for each track (so at least 2 joint papers at the end) to be presented in the book.
vi. The discussion will be divided into two sessions, and all attendance will participate in both sessions.
vii. Participants will be divided into different groups for discussions, and multiple joint sessions can be held among all groups before splitting into individual group discussions. This will be used to synchronize ideas and idea exchange among groups.

c. First Group Discussion Session: Software Crowdsourcing Processes, Models, Techniques, and Infrastructure starting 9/2/2013 and may last to 9/3/2013
    i. Software Crowdsourcing Processes
        1. TopCoder processes such as Harvard-TopCoder process
        2. AppStori proceses
        3. Other processes
        4. Requirement crowdsourcing, joint requirement capture
        5. Design and architecture crowdsourcing, collaborative design, joint architecture review sessions
        6. Code crowdsourcing, collaborative coding, collaborative code review
        7. Test and evaluation crowdsourcing
    ii. Software Crowdsourcing Models
        1. Process modeling
            a. Competition models
            b. Collaborative models
            c. Hybrid models
            d. Partitioning and restructuring software development processes
        2. Competition models
            a. Game theory and models
        3. Ranking models
            a. Ranking of talents
            b. Ranking of products
            c. Ranking of processes
    iii. Software Crowdsourcing Techniques
        1. Evaluation of software developed
        2. Economic model
        3. Evaluation of T&E crowdsourcing
    iv. Software Crowdsourcing Infrastructure
        1. Cloud infrastructure for crowdsourcing
            a. Metadata design for software crowdsourcing
            b. MapReduce mapping for crowdsourcing

c. PaaS support for crowdsourcing
d. SaaS support for crowdsourcing

2. Automated identification of talents
3. Automated asset identification and cross linkage of assets for crowdsourcing
4. Database support for crowdsourcing (Big Data for crowdsourcing)
5. Software crowdsourcing communities

d. Second Group Discussion Session: Design of Crowdsourcing collaboration and experimentation on 9/3/2013 and 9/4/2013
   i. Software crowdsourcing roadmap
   ii. Joint experimentation and possibly joint platform or modules in a public crowdsourcing
   iii. Potential projects
      1. AppStori like for mobile eScience
      2. Other ideas:
   iv. Crowdsourcing Research Experiments, for example:
      1. Cross crowdsourcing: different teams will develop requirements, code and perform testing
      2. Using eScience infrastructure provided by Beihang
      3. Developing open-source cloud applications
      4. Developing MOOC applications such as auto-grading and auto-indexing
      5. Sharing crowdsourcing data collections and experimentation results
      6. Exploring joint funding opportunities in Europe, China, and US

e. Social events
   i. Wine event on the evening of 9/1/2013
   ii. Optional Sightseeing on 9/3/2013

4. Arriving from Frankfurt Airport

Coming from Frankfurt Airport it is strongly recommended to take a combination of train and taxi. The trip requires approx. 2.5 hours altogether. Take the direct train (26.80 Euro) from Frankfurt Airport ("Frankfurt(M) Flughafen Regionalbf", regional train station) to the station of St. Wendel or Tuerkismuehle (St. Wendel or "Türkismühle", direction "Saarbrücken Hbf"). Tickets can be bought at the train station in the airport or on-line. You can't purchase tickets on the trains. Please note that Frankfurt airport has **TWO** train stations: the regional train station ("Frankfurt(M) Flughafen Regionalbf") and the long-distance train station ("Frankfurt(M) Flughafen Fernbf"). Take a taxi from Tuerkismuehle to Dagstuhl (33.50 Euro). Make arrangements for the taxi at least three days in advance (further rates and contact details). Please send your travel details to wwjmeng@gmail.com in case you are interested to share a taxi. We can send this information to the whole group.