University of Zurich

RERG

Requirements Engineering II

Assignment 3

Social Computing and User Feedback in Requirements Engineering

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I.   Task

Individual Tasks
- Read the mandatory items in the reading list
- Prepare a critique of each mandatory paper. For each paper, we will select a student to present her or his critique orally in class (3-5 minutes). Particular questions to be addressed are:
    o   What is the main message of the paper?
    o   What are the expected practical benefits?
    o   What are the strengths and weaknesses of the paper?
    o   What questions do you have about the paper? (prepare at least two questions)
    o   What is your personal opinion about the paper? Do you agree or disagree with its findings?
- Be prepared to answer the questions given in Sect. III below in class.

Group Tasks
- Prepare a 10-12 minutes presentation (plus 6-8 minutes of discussion) on the theme assigned to your course group (cf. Sect. IV) and choose two students from your group to present it.
    o   At the beginning of your presentation, relate your topic to the session's topic (as represented by the mandatory reading)
    o   Browse/read additional papers and/or web pages where necessary.
    o   Send your presentation to Norbert after the session to share it with others.
- Did you or members of your team use social computing approaches for Requirements Engineering? Discuss potential benefits, but also limitations and report your experience and opinion in your presentation. What does existing social software lack to support Requirements Engineering?

II.   Reading List

Mandatory reading
The first workshop on "Requirements Engineering for Social Computing" was held at the IEEE International Requirements Engineering Conference in 2011. In this workshop [Copra 2011] discussed the nature of social computing and challenges. [Dalpiaz 2011] identified social threats and the new challenges for Requirements Engineering. More recently, [Guzmán et al. 2016] investigated Twitter messages as a potential source for requirements.

Theme-specific reading
[Lim et al. 2010], [Lim and Ncube 2013]: Social Networks for Stakeholder Identification and Analysis
[Seyff et al. 2014], [Pagano and Maalej 2013]: User Feedback for Continuous Software Evolution
[Maalej and Nabil 2015], [Guzmán et al. 2017]: Mining and Analyzing User Feedback

III. Questions

- What RE activities can be supported with social software?
- What are the benefits, limitations and threats of social software within RE?
- Which kinds of social software can be used within RE? Also consider insights from Assignment 2 when answering this question.
- How can end user feedback be exploited for RE?

IV. Themes for Presentation

A. Social Networks for Stakeholder Identification and Analysis
How can stakeholders be identified using StakeNet? What are the experiences and lessons learned?

B. User Feedback for Continuous Software Evolution
How can end users be enabled to give feedback? What are the characteristics of feedback provided through reviews in app stores? What is the impact of user feedback?

C. Mining and Analyzing User Feedback
How can user feedback in app reviews be analyzed automatically? How can Twitter be used as a channel for user feedback and how can tweets be analyzed automatically?

References

Chopra, A.K. (2011). Social Computing: Principles, Platforms, and Applications. *First International Workshop on Requirements Engineering for Social Computing (RESC),* Trento, Italy. 26-29.

Dalpiaz, F. (2011). Social Threats and the New Challenges for Requirements Engineering. *First International Workshop on Requirements Engineering for Social Computing (RESC),* Trento, Italy. 22-25.

Guzmán, E., R. Alkadhi, N. Seyff (2016). A Needle in a Haystack: What Do Twitter Users Say about Software? *24th IEEE International Requirements Engineering Conference (RE'16),* Beijing, China. 96-105.

Guzmán, E., M. Ibrahim, M. Glinz (2017). A Little Bird Told Me: Mining Tweets for Requirements and Software Evolution. 2*5th IEEE International Requirements Engineering Conference (RE'17),* Lisbon, Portugal. 11–20.

Lim, S.L., D. Quercia, A. Finkelstein (2010). StakeNet: Using Social Networks to Analyse the Stakeholders of Large-scale Software Projects. *32nd International Conference on Software Engineering (ICSE 2010).* Cape Town, South Africa. 295-304.

Lim, S.L., C. Ncube (2013). Social Networks and Crowdsourcing for Stakeholder Analysis in System of Systems Projects. *8th International Conference on System of Systems Engineering (SoSE 2013),* Maui, Hawaii. 13-18.

Maalej, W., H. Nabil (2015). Bug Report, Feature Request, or Simply Praise? On Automatically Classifying App Reviews. *23th IEEE International Requirements Engineering Conference (RE'15),* Ottawa, Canada. 116–125.

Pagano, D., W. Maalej (2013). User Feedback in the AppStore: An Empirical Study. 21st *IEEE International Requirements Engineering Conference (RE'13).* Rio de Janeiro, Brazil. 125-134.

Seyff, N., G. Ollmann, M. Bortenschlager (2014). AppEcho: A User-Driven, in Situ Feedback Approach for Mobile Platforms and Applications. *1st International Conference on Mobile Software Engineering and Systems (MOBILESoft 2014),* Hyderabad, India. 99-108.