Cooperative and Human Aspects of Software Engineering (CHASE 2008)

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ABSTRACT

The *CHASE 2008* workshop is concerned with exploring the cooperative and human aspects of software engineering, and providing a forum for discussing high-quality resarch. Accepted papers reflect the diversity of the field of software engineering–ranging from requirements to testing, and from ethnographic research to experiments. Moreover, the background of attendees reflects the diversity of researchers in this domain, ranging from sociology to psychology, from informatics to software engineering. *CHASE 2008* met its goals in presenting high-quality research and building community through a mixture of presentations, discussions, posters, and social activities.

Categories and Subject Descriptors

D.2.0 [**Software Engineering**]: General

General Terms

Human Factors, Experimentation, Management.

Keywords

Collaboration, Process, Distributed Teams, Organizations, Design, Social Networks. .

1. INTRODUCTION

Software is created by people - software engineers working in varied environments, under diverse conditions. Thus understanding the cooperative and human aspect of software development is crucial to understanding how methods and tools are used. This knowledge is needed to improve methods and tools and thereby improve both the creation and maintenance of software.

Over the last several years, a renaissance of sorts is occurring in this research topic, with a growing body of research being published in software engineering venues as well as other research discourses. A critical mass of high quality work has been emerging, for example a dedicated workshop [4], a special issue of a journal [2], and a textbook [5]. Thus the time is right to bring together researchers to share knowledge, and further build the research area.

The goal of *CHASE 2008* is therefore to provide a forum for discussing high quality research on the cooperative and human aspects of software engineering, as well as a meeting place for the nascent community that is currently distributed over several different research domains, of which the primary ones are Software Engineering, Human Computer Interaction, Information Systems and Computer Supported Cooperative Work.

2. Workshop Topics

The main goal of the workshop is to provide a venue for presenting existing work and exploring new research directions on the human and cooperative aspects of software engineering. Accordingly, the workshop was open to a broad collection of topics, including:

- Software engineering as cooperative work,
- Social and cultural aspects of software engineering,
- Psychological and cognitive aspects of software engineering,
- Managerial and organizational aspects of software engineering
- Coordination of large scale software development,
- Cooperation between software developers and other professionals over the lifetime of a system.

Examples of types of contribution include:

- Empirical studies of software engineering teams and individual software engineers *in situ*, using approaches such as ethnographies, surveys, interviews, contextual inquiries, data mining, etc.
- Lab studies of individual and team software engineering behavior,
- Novel tools motivated by observed needs such as new ways of capturing and accessing software-related knowledge, navigational systems, communication, collaboration, and awareness tools, visualizations, etc.
- Novel processes motivated by observed needs, and
- Meta-research topics such as how to effectively validate interventions and research methods

3. Accepted Papers

The papers accepted by the workshop reflected the diversity of current research in the area of cooperative and human aspects of software engineering. Thirty-four short papers were submitted and 28 were accepted. Six were selected for presentation to the full workshop, while the others were shared as posters. For the most part, the papers reported the results of research in real-world settings. However, there were a few papers presenting a conceptual framework on a particular topic. Many papers proposed or evaluated tools to help manage cooperative or other human aspects of software engineering. The specific software engineering sub-domains that the papers represented ranged from requirements engineering to testing, and moreover, across the software engineering lifecyle from design to maintenance. Methodologies utilized included case studies, ethnography, self-reflection, social network analysis, and experiments. Some papers focused on individuals, while others focused on groups. Probably, one of the more interesting aspects of the papers, is that many pushed forward the frontiers of CHASE by looking beyond traditional software engineering settings to the organizational level in order to better understand and facilitate communication and knowledge transfer– in particular with respect to human computer interaction and project management..

The diversity of the papers reflects how broadly the notion of the cooperative and human aspects of software engineering can be applied. As we stated in our introduction, software is created by humans. Because of this, understanding how humans come together to build software systems is fundamental to improving that process both in terms of individual and group functioning. While understanding the human and cooperative aspects of software engineering has a long history (e.g., [1][4][5]), it has not necessarily occupied a central position in software engineering. As this renaissance grows in strength, we hope that more such research will be produced and integrated successfully into the software engineering discipline. An understanding and accounting for of both the technical and human aspects will be necessary to enhance and progress software engineering research.

4. ACKNOWLEDGMENTS

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5. REFERENCES

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