8th International Workshop on Cooperative and Human Aspects of Software Engineering (CHASE 2015)

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***Abstract*— Software is created for and with a wide range of stakeholders, from customers to management, from value-added providers to customer service personnel. These stakeholders work with teams of software engineers to develop and evolve software systems that support their activities. All of these people and their interactions are central to software development. Thus, it is crucial to investigate the dynamic and frequently changing Cooperative and Human Aspects of Software Engineering (CHASE), both before and after deployment, in order to understand current software practices, processes, and tools. In turn, this enables us to design tools and support mechanisms that improve software creation, software maintenance, and customer communication.**

Researchers and practitioners have long recognized the need to investigate these aspects, however, their articles are scattered across conferences and communities. This workshop will provide a unified forum for discussing high quality research studies, models, methods, and tools for human and cooperative aspects of software engineering. This will be the 8th in a series of workshops, which continue to be a meeting place for the academic, industrial, and practitioner communities interested in this area, and will give opportunities to present and discuss works-in-progress.

***Index Terms*— Management, Performance, Human Factors**

I. Relevance to Software Engineering

The importance of people-oriented factors in software development has long been recognized, however, the details of these 'people factors' inexorably and frequently change due to the changing nature of software development and its inherent complexities. Thus, in order to advance the state of software engineering research and practice, it is crucial to investigate aspects such as collaboration, motivation, trustworthiness, and the impact of work practices on the different dimensions of software development (e.g. code quality, developer productivity and so on). These studies enable us to create, adapt and evaluate methods, development tools and new techniques that support sound working relationships and production of high quality code.

II. Workshop Theme and Goals

Software engineering is about making choices and decisions. Some of the critical decisions are informed by multiple viewpoints and experiences acquired from stakeholders. Methods, tools, and techniques have been shaped over many years by best practices learned from experience, but software engineers continually face new challenges and constraints. Addressing these challenges benefits from diverse perspectives, and this workshop welcomes submissions that embrace this variety. Topics of interest include, but are not limited to, the following:

- Software design philosophies, engineering practices, and tools that leverage human and cooperative aspects of software engineering;
- Adapting tools and processes to accommodate a range of organizational and cultural situations;
- Sociological and cultural characterizations of software engineering (e.g. trust, conflicts, norms);
- Psychological and cognitive aspects of software engineering (e.g. motivation, rewards, personality types);
- Managerial and organizational aspects of software engineering that focus on people and their interactions;
- Software engineering as collaborative work, including behavioral incentives, social networking, communication, coordination, and decision-support tools;
- Teamwork and cooperation in various development methodologies (e.g. agile, spiral, lean, waterfall, RAD);

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– Models of community-based software development, such as Open Source, crowdsourcing, and public-private partnerships;
– Coordination, mutual awareness, and knowledge sharing in small-scale and large-scale software development, e.g. distributed software development, semi-anonymous collaboration, and "borderless" software teams;
– Stakeholder participation in regard to design, ownership, training, degree of involvement, communication, interplay, and influence with developers, sustainability, and deployment; and
– Processes and tools to support communication and cooperation between stakeholders, including software developers, professionals, and customers over the lifetime of a system (requirements, design, development, testing, and maintenance).

Possible contributions include:

– Empirical studies of software engineering teams or individuals *in situ,* using methods such as ethnographies, surveys, interviews, contextual inquiries, data mining, etc.;
– Laboratory studies of individual or team software engineering behavior;
– Novel tools motivated by observed needs, such as new ways of capturing and accessing software-related knowledge, software orienteering systems, communication, collaboration, awareness tools, visualizations, etc.;
– Novel processes motivated by empirical investigations; and
– Meta-research topics, such as effective validation of interventions or research methods.

Our main goals are to disseminate current research about CHASE topics, and to explore research directions that will lead to improvements in the creation and maintenance of software. An additional goal is to assemble and support researchers and practitioners who investigate the cooperative and human aspects of software engineering. These include those who typically attend ICSE (and other software engineering conferences) and those who hail from other disciplines such as management and behavioral sciences, project managers and workplace designers.

III. Papers

We have invited three paper categories: 7-page full papers, 4-page short papers, and 2-page notes. These categories offer researchers who are at different stages in their research maturity the opportunity to benefit from workshop participation.

We are delighted to present a collection of excellent contributions across all three paper formats. Based on the recommendations of the program committee, we have selected 11 full papers, 9 short papers and 6 notes. The submissions combine several qualitative research methods with quantitative approaches and cover a range of topics relevant to CHASE issues. A number of topics can be identified that map out the scope of the submissions: usability and communication with users and customers; (distributed) design and sense making, and the role of personality traits in relation to team roles.

The list of accepted papers is published on the workshop website: http://www.chaseresearch.org/workshops/chase2015.

IV. Program Committee

We are thankful to the following colleagues who contributed their time reviewing papers for this workshop:

1. Uli Abelein, Heidelberg University
2. Vivek Balaraman, Tata Research Development and Design Centre
3. Fabio Da Silva, Universidade Federal de Pernambuco
4. Torgeir Dingsøyr, SINTEF Information and Communication Technology
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26. Thomas Zimmermann, Microsoft Research

V. Organizing committee

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