Message from the SoHeal 2018 Organizers

Welcome to SoHeal 2018, the 1st International Workshop on Software Health (SoHeal), held in conjunction with the 40th International Conference on Software Engineering (ICSE 2018) in Gothenburg, Sweden on May 27th. SoHeal aims to establish itself as a yearly venue gathering researchers, practitioners and software community members to share their ideas, visions, experiences on what constitutes software health and how such health should be supported.

To date, there is no clear-cut definition of what constitutes software health, since it encompasses many different software development and evolution attributes, including success, longevity, growth, resilience, survival, diversity, sustainability, etc. Factors impacting software health can vary depending on the viewpoint of the involved stakeholders: process factors, technical factors concerning the source code and related software artefacts, social and cultural factors concerning the communities of software contributors and users, business factors concerning commercial and legal aspects of the software product, and many more.

Recent initiatives such as the Linux Foundation's CHAOSS project on community health analytics (https://chaoss.community) and the SecoHealth research project (https://secohealth.github.io) illustrate not only the increasing interest by both the research community and industry in addressing the health of individual software projects, but also in addressing health aspects related to these projects' role in a larger ecosystem. Indeed, to obtain a holistic view of software health, it is essential to also consider the health of the ecosystem in which the project participates. Hence, there is a need to:

- find better methods, techniques and tools to measure and monitor health of software projects, as well as to predict and take corrective measures when health implications arise;
- better understand how the health metrics, indicators and their operationalization can be aggregated from project-level to ecosystem level.

We are very honoured to have a keynote presentation by Kate Stewart, Senior Director of Strategic Programs at the Linux Foundation, who will present important lessons learned from her experience with the Linux kernel development ecosystem on how to create sustained healthy communities. In addition to this, the workshop will host a dedicated CHAOSS open discussion session on what constitutes software health and how it can be measured.

The technical program of the workshop includes presentations of 7 long papers and 2 extended abstracts, contributed by 26 authors from 5 countries. Each contribution was reviewed by at least three Program Committee members (4 for long papers) and evaluated according to their relevance to the workshop, soundness, maturity and presentation quality. Accepted long papers were invited for presentation and inclusion in the proceedings, while accepted abstracts were invited for presentation only. The workshop's exciting program offers insight into a wealth of aspects surrounding the concept of software health.

In particular, regarding the health of individual projects, the accepted papers and abstracts consider different facets of health, such as the impact of managerial factors and multi-language/-cultural development, technical debt in software packages and Docker containers, and the run-time health of software applications. Regarding software ecosystem health, the workshop features papers and abstracts on the relation between ecosystem health and financial performance, the interactions of sub-ecosystems in an ecosystem and their relation with the ecosystem's overall health, recommendation of ecosystem libraries to reuse, and the general future of research on ecosystem health.

We would like to thank everyone who made the workshop come to life, including the authors, the Program Committee members and the ICSE 2018 Workshop Chairs, and we hope to meet you either in Gothenburg or at a future SoHeal instance!

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