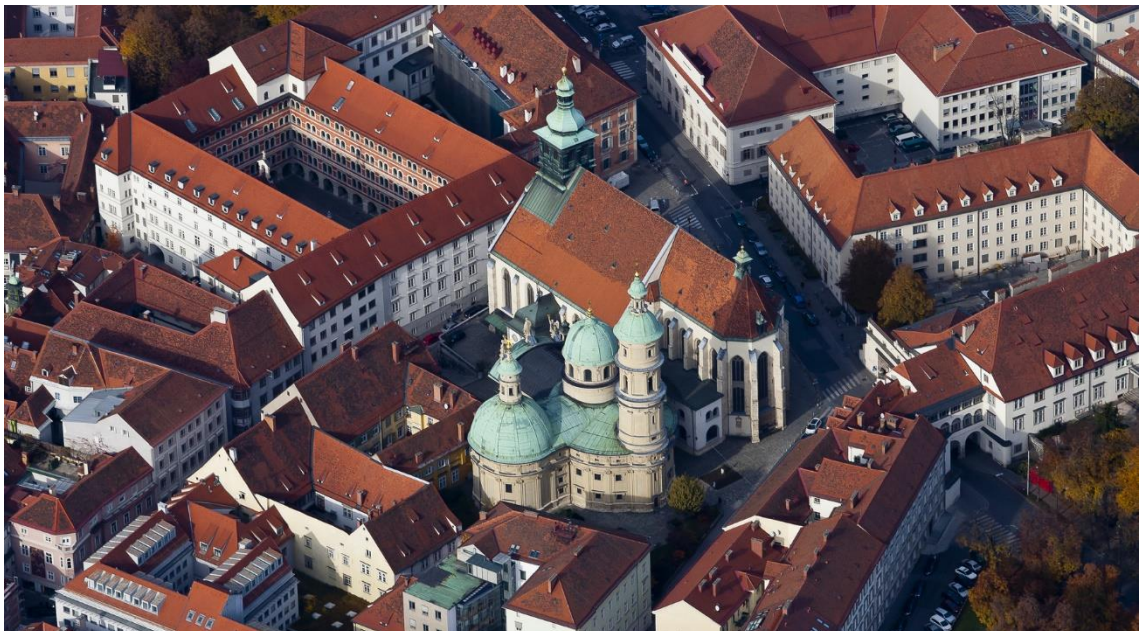


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Call for Papers / Contributions
Workshop on Digital Eco-Systems
(DECOSYS 2016)

Graz University of Technology

October 18th, 2016



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Motivation

While in the early days of software engineering, a software product was the result of an independent software company, modern software strongly relies on components and infrastructure from third party vendors or open source suppliers. The relationship between software development companies and solution/service providers will shape the product software landscape into software ecosystems. In such an eco-system suppliers and buyers of software products collaboratively create competitive value. Software has no physical limitation, therefore the main limitations are conceptual, social and of economic nature. While fixed value-chains are transformed into value networks the process goes hand in hand with some kind of “digital disruption”. Some popular examples to be mentioned are:

- The world’s largest taxi company owns no taxis (Uber)
- One of the largest accommodation providers own no real estate (Airbnb)
- Largest phone companies own no telecommunication infrastructure (Skype)
- The world’s most valuable retailer has no inventory (Alibaba)
- The fastest growing banks have no actual money (SocietyOne)
- The world’s largest movie house owns no cinemas (Netflix)
- The world’s largest software vendors don’t write the apps (Apple & Google)

Change in the information age primarily has addressed automation and thus efficiency. With the advent of PCs and later with the internet and clients-server architectures the competition among companies required effectiveness on top of automation and efficiency. With mobiles, apps, the cloud and web services we have entered the digital age in which eco-systems play a major role. The capability to innovate has become paramount on top of being automated, efficient and effective. This transition is accompanied in terms of the following market characteristics:

- Defined industry boundaries vanish and evolve into platforms and digital eco-systems
- Single purpose products are substituted by connected-services
- Competition as a zero-sum game turns into strategic co-operation
- Producers and users turn into co-creating prosumers
- The traditional buyer and seller relationship is redefined and customers are sharing goods and services shaping the collaborative economy value chain (sharing economy).

Objective

This workshop brings together academics (university professors, doctoral students, and scientific staff) and industrial practitioners from different sectors, such as

- the automotive industry,
- the semiconductor industry,
- software product developers,
- solution providers,
- manufacturing industry, and
- infrastructure (e-mobility, telecommunications provider, data centres)

to exchange and discuss the latest synergies on digital eco-systems. We explicitly encourage participation of researchers from different communities within computer science. The workshop will be set in an informal and cooperative atmosphere with a specific format allotted to discussions. To promote cross-fertilization we organize DECOSYS 2016 as a one-day event co-located with the 28th International Conference on Testing Software and Systems (ICTSS-2016).

Academic contributions

Full papers are limited to 8 pages. Position statements and problem instances can be submitted as short papers limited to 4 pages. Both regular and short papers should be formatted in pdf according to the workshop style guide (pls. download the Word template or LaTeX template at <http://ictss2016.ist.tugraz.at/index.php/decosys2016/> and submitted to the EasyChair environment at <https://easychair.org/conferences/?conf=decosys2016>. Each submission will be subject to peer review by at least two members of the program committee. Refereeing criteria are relevance to workshop topics, significance and novelty of the research, technical content, discussion of relationship to previous work, and clarity of presentation. A contribution submitted as a long paper may be accepted as a short paper, if the program committee considers it to be inadequate for a long paper but to present an important issue. At least one author of each accepted paper is required to register at the workshop and to present the paper. Accepted papers will be published online in a volume of the CEUR Workshop Proceedings series

Industrial contributions

The workshop will also provide a venue for discussing/presenting ongoing industry projects and products or ideas dealing with digitalization of business models and digital eco-systems in the form of demonstrations, industrial talks, panels, position statements or breakout sessions. Applicants should briefly sketch the topic and the intended format and submit their informal proposals to the chairs. Pls. submit the proposed contribution to bernhard.peischl@ist.tugraz.at or/and harald.altinger@audi.de.

Topics of interest include, but are not limited to:

- test process improvement
- business drivers for software quality
- quality attributes: functionality, interoperability, performance, security, reliability, robustness
- quality metrics and KPIs
- quality impact prediction
- domain specific quality issues such as quality in automotive, electronics, semiconductors
- agile development and quality
- rapid value delivery
- continuous integration and deployment
- case studies and industrial applications
- testing of software-enabled systems
- configuration testing
- testing of web-services and service compositions
- protocol verification
- open source software and its role in ecosystems
- open data
- data as a service
- software as a service
- heterogeneity of software licenses
- digital platforms
- infrastructure and tools for decision making
- software and service architecture
- community-driven software platforms
- limits of automation
- software and service engineering and the crowd
- customer journey mapping
- integrating and dismounting legacy
- maturity models for digital transformation and DevOps
- solution validating through crowd testing
- recommendation systems and applications

Important Dates

Article submission: August 19th, 2016

Notification: September 5th, 2016

Workshop: October 18th, 2016

Program Committee (to be completed)

Robert Korosec, AVL List GmbH, Austria

Daniel Rodriguez, University of Alaca, Spain

Andrea Janes, Free University of Bozen-Bolzano, Italy

Alexander van Ewijk, Sogeti Deutschland GmbH, Germany

Michail Papadakis, Luxembourg University, Luxembourg

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