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SPLTea 2014: First International Workshop on Software Product Line Teaching

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ABSTRACT

Education has a key role to play for disseminating the constantly growing body of Software Product Line (SPL) knowledge. Teaching SPLs is challenging and it is unclear how SPLs can be taught, what are the possible benefits, or what is the material available. This workshop aims to explore and explain the current status and ongoing work on teaching SPLs at universities, colleges, and in industry (e.g., by consultants). Participants will discuss gaps and difficulties faced when teaching SPLs, benefits to research and industry, different ways to teach SPL knowledge, common threads, interests, and problems. The overall goal is to strengthen the important aspect of teaching in the SPL community.

Categories and Subject Descriptors

K.3.2 [Computer and Information Science Education]: Computer Science Education; D.2.9 [Software Engineering]: Management—*Life cycle*

General Terms

Education, Software Engineering

Keywords

Software Product Lines, Software Engineering Teaching

1. MOTIVATION AND GOALS

Currently, it is unclear how *Software Product Lines* (SPLs) are taught, what are the possible difficulties faced, what are the benefits, or what is the material available. To address this gap, we conducted a survey [1] with the purpose of capturing a snapshot of the state of teaching in our community. Our goal was to identify common threads, interests, and problems and build upon them to further understand and hopefully strengthen this important need in our community.

This workshop aims to further explore the *current status and ongoing work on teaching SPLs and variability at universities, colleges, and in industry* (e.g., by consultants). Participants will discuss gaps and difficulties faced when teaching SPLs, benefits to research and industry, different ways to teach SPL knowledge, common threads, interests, and problems. The overall goal is to strengthen the important aspect of teaching in the SPL community and outline future directions for research and practice.

As a first result we expect to consolidate a network of academics and practitioners interested and committed with SPL education and consulting. With this group we plan to

create a *virtual community* in the form of a group in a social network or a dedicated Wiki. The virtual community aims to fill an educational vacuum: at least 30+ instructors have already taught SPLs [1], but very few materials or experiences are shared among them. This will be the focal point to disseminate news, contribute courses, exercises, case studies, tools, and other coordination activities.

2. TOPICS

Topics include, but are not limited to:

- Experiences with teaching SPLs to students or practitioners
- Best practices for teaching SPLs
- Innovative curricula or course formats
- Impact of the online education movement (MOOCs) on teaching SPLs
- Innovative methods for teaching SPLs in online courses
- Integration of SPL research into teaching and training
- Continuing SPL education in the face of rapid technological change
- The influence of new paradigms, such as cloud computing or global software development, on SPL teaching
- Ensuring graduated students meet industry needs through the understanding of SPL techniques
- Innovative use of social media for knowledge management in SPL teaching

3. REFERENCES

- [1] M. Acher, R. Lopez-Herrejon, and R. Rabiser. A survey on teaching of software product lines. In *Eighth International Workshop on Variability Modelling of Software-intensive Systems (VaMoS '14)*, pages 3–10, Sophia Antipolis, France, 2014. ACM.