CALL FOR PAPERS

Workshop on evaLuation and assEssment on softwARe eNgineers' Education and tRaining (LEARNER 2023)

https://unibas3d.github.io/learner/CFP.html

Co-located with EASE conference 2023

Description

Software engineers need to acquire a rich set of soft (e.g., problem-solving) and hard skills (e.g., software testing) in order to be able to deliver high-quality software systems that meet stakeholders' needs. Such a skill set can be acquired through different educational and training means: from formal education in schools and universities to workplace training and capstone projects, from offline classes to those online, from coding clubs to boot camps and contests, up to the use of any resource or technology for the education and training of present and future software engineers. These educational and training means need to be assessed by educators or trainers.

LEARNER 2023 is a workshop interested in any aspect concerning the evaluation and assessment of educational and training means for present and future software engineers. Contributions aiming to evaluate and assess the skills above mentioned, as well as engagement and retention (e.g., gender balance) in the education and training of software engineers, are also of interest to the workshop.

The workshop will expect a mixed audience of researchers and educators from both academia and industry worldwide to share and discuss findings resulting from the evaluation and assessment in the context of education and training of present and future software engineers within schools, universities, workplaces, etc.

LEARNER will have a special theme of ***Software Testing Education and Training***. Software testing is one of the most effective ways to measure functional quality. However, current Information Technology (IT) curricula do not educate students to become good testers. The identified problems in the current IT curricula follow: (1) testing is often introduced too late, when bad habits (for example, not testing their own code) are already developed; (2) there is a lack of dedicated courses on software testing; (3) students (and lecturers) often lack the motivation to do good testing and see the subject as boring (even though many times they see the value); and (4) a systematically developed body of knowledge with didactic approaches, educational settings, and learning outcomes on software testing is lacking. Fortunately, educators all over the world are developing components for innovative educational programs in software testing that meet the needs of higher education to foster quality awareness. These components need to be assessed in order to understand whether, or not, the desired or expected learning outcomes are achieved. To bring evidence on this matter, the first edition of LEARNER has Software Testing Education and Training as a special theme.

List of Topics

LEARNER 2023 encourages contributions covering any topic related to (quantitative, qualitative, and mixed) research in the context of software engineers' education and training. The topics of interest include, but are not limited to:

- Educational and training methods for acquiring hard skills and soft skills required to software engineers;
- Role of soft skills and human factors in the education and training of software engineers;
- Measurement of hard skills, as well as soft skills required to software engineers;
- Pedagogical approaches supporting software engineers' education and training in distributed and remote settings;
- Education and training of software engineers in university and workplace settings;
- Online platforms and software tools specially designed or just used for education and training purposes of software engineers;
- Means (e.g., coding clubs, boot camps, contests, and serious games) for approaching primary and secondary students to Software Engineering and related hard skills;
- Certification of software engineers in different specialization areas (e.g., software security);
- Continuing training of software engineers;
- Engagement and retention (e.g., gender balance) in software engineers' education and training.

As for the special theme, the topics of interest include, but are not limited to:

- Educational and training methods for software testing;
- Models, methods, and techniques for evaluating the effectiveness of software testing education;
- Evaluation on innovative software testing teaching processes;
- Role of soft skills and human factors in the education and training of software testers;
- Metrics, measures and assessment techniques to evaluate knowledge in testing courses;
- Tools specifically designed for education and training of software testing.
- Any means for improving software testing education and training not listed above.

Submission Guidelines

Any paper must be written in English, contain original unpublished work, official ACM Primary Article Template (https://www.acm.org/publications/proceedings-template). LEARNER 2023 will employ a double-blind review process. Papers must be submitted in PDF format through EasyChair https://easychair.org/conferences/?conf=learner2023.

Accepted papers will be published in the joint workshop proceedings in the ACM Digital Library. The authors have four options for submitting their papers:

• **Full papers (max 10 pages)** describing original and completed research (i.e quantitative, qualitative, and mixed research) on topics related to software engineers' education and training. Negative results papers are welcome as long as they can support advice or lessons learned. Papers reporting replications of empirical studies are welcome as well.
• **Experience reports (max 5 pages)** describe an experience on topics related to software engineers' education and training. Unlike research papers, experience-report ones do not leverage empirical research (i.e., quantitative, qualitative, and mixed research) to distill findings. Experience-report papers are of interest as long as they provide an interpretation of the experience in terms of lessons learned and actionable tips.
• **Ongoing-research papers (max 5 pages)** describing novel, interesting, and high potential work in progress, but not necessarily reaching their full completion; or position papers that analyze trends or issues of importance. An ongoing-research paper must describe the idea as well as the proposed evaluation and assessment strategy possibly (but not necessarily) with some preliminary results.
• **Methodological-failure papers (max 5 pages)** correspond to papers where poor evaluation and assessment strategies invalidate otherwise interesting findings in the context of software engineers' education and training.

Organizing committee

Nicola Capece (nicola.capece@unibas.it)
Simone Romano (siromano@unisa.it)
Letizia Jaccheri (letizia.jaccheri@ntnu.no)
Beatriz Marín (bmarin@dsic.upv.es)
Anna Rita Fasolino (fasolino@unina.it)
Niels Doorn (niels.doorn@{ou.nl, nhlstenden.com})

Important Dates

Submission deadline: March 10th, 2023
Notification: April 14th, 2023
Camera-ready deadline: April 28th, 2023
Early registration deadline: May 5th, 2023
Workshops take place on June 16th, 2023

Contact - All questions about submissions should be emailed to the organizing committee