Cesare Pautasso
Fernando Sánchez-Figueroa
Kari Systä
Juan Manuel Murillo Rodríguez (Eds.)

LNCS 11153

Current Trends in Web Engineering

ICWE 2018 International Workshops
MATWEP, EnWot, KD-WEB, WEOD, TourismKG
Cáceres, Spain, June 5, 2018
Revised Selected Papers

2018

ICWE

Springer

Lecture Notes in Computer Science   11153

1st International Workshop on Maturity of Web Engineering Practices (MATWEP 2018)

Francisco José Domínguez Mayo[1], José González Enríquez[2],
Nora Koch[2], and Esteban Morillo Baro[3]

[1] University of Seville, Seville, Spain
fjdominguez@us.es
[2] IWT2 Group, University of Seville, Seville, Spain
{jose.gonzalez,nora.koch}@iwt2.org
[3] Servinform, S.A., Seville, Spain
emorillob@servinform.es

Abstract. Knowledge transfer and adoption of software engineering approaches by practitioners is always a challenge for both academia and industry. The objective of the workshop MATWEP is to provide an open discussion space that combines solid theory work with practical on-the-field experience in the Web Engineering area. The topics covered are knowledge transfer of Web Engineering approaches, such as methods, techniques and tools in all phases of the development life-cycle of Web applications. We report on the papers presented in the edition 2018 and the fruitful discussion on these topics.

Keywords: Web engineering · Methods · Techniques Tools · Knowledge transfer · Industrial environment

1 Introduction and Motivation

The First International Workshop on Maturity of Web Engineering Practices (MATWEP 2018) was held in conjunction with the 18th International Conference on Web Engineering (ICWE 2018) in Cáceres (Spain) on June 5th 2018. The motivation for this initiative stands in the aim of building a better bridge from theory to practice, from academia to industry.

The focus of this first workshop and future editions of MATWEP is the analysis and discussion on positive experiences and difficulties that arise in the construction of such bridges. The goal is to show the lessons learned in the knowledge transfer process. This way it promotes to obtain feedback from practitioners for improving Web Engineering techniques, methods and approaches developed in research-intensive environments.

2   Presentations

During the first edition of the workshop five papers were selected for presentations at the workshop; three of them were selected to be published in these proceedings. We hope you find these papers useful reading material.

The first paper describes how the Navigational Development Techniques (NDT) - an MDWE methodology - was applied to manage the test phase of a real-world case study, part of the ADAGIO project. L. Morales et al. show the advantages of the automated generation of test cases improving the quality of the final product, and how the feedback obtained will serve to improve the NDT-tools to reduce the computational cost of generating tests from complex functional requirements.

The second paper written by A. Kravchenko, R. R. Fayzrakhmanov, and E. Sallinger focuses on different representations of web pages, and introduces BERYL, a novel framework and language, which consolidates a rule-based approach with machine learning. The rule-based approach is used for feature engineering and pattern recognition, while machine learning is used for classification based on the inferred features. The evaluation of BERYL help to identify some main points as feedback, and which can direct future work, such as the integration of a common framework for describing topology and various spatial relations, and the possibility of selecting the most relevant machine learning algorithm.

In the third paper E. Falzone, and C. Bernaschina present a MDD approach which organizes the model transformation rules and the code architecture in a way that preserves the manual modifications of the code defined outside the model-and-generate cycle, such as the code defining the look and feel of the user interface and the connection to the required service endpoints. They report on the experience using the MDD approach in the development of web and mobile applications for an energy demand management project, and the generation of game versions from IFML models, in which both the presentation code and the code for connecting the game to a back-end cloud platform were added manually.

For further information and material, such as the presentations slides, please visit the MATWEP 2018 website: http://www.iwt2.org/matwep2018/.

3   Discussion

The very fruitful discussion round during the last workshop session focused on the difficulties of the knowledge transfer and the different possibilities to make the adoption of new techniques, methods, and tools more successful in an industrial environment.

Difficulties were mentioned, such as the costs of the development of tools and their maintenance, as well as the provision of training courses and tool documentation. The question was posed, if the role of academia is to implement such tools, or instead should limit itself to develop new techniques and methods, eventually providing prototypes, that could be adopted by tool providers.

4 Acknowledgement

5 Program Committee

Miguel Angel Barcelona, Everis Spain, Spain
Antonia Bertolino, ISTI-CNR, Italy
Marianne Busch, BMW, Germany
Olga De Troyer, Vrije Universiteit Brussel, Belgium
Piero Fraternali, Politecnico di Milano, Italy
Javier Gonzalez-Huerta, Blekinge Institute of Technology, Sweden
Andrés L. Martínez Ortiz, Google, The Netherlands
Eva-Maria Schön, IWT2 Group, University of Seville, Spain
Gustavo Rossi, LIFIA-F. Informatica, UNLP, Argentina
Adel Rouz, Fujitsu Laboratories Europe, UK
Carlos Torrecilla-Salinas, IWT2 Group, University of Seville, Spain
Fernando Sánchez, Universidad de Extremadura, Spain
Jörg Thomaschewski, University of Applied Sciences Emden/Leer, Germany
Cesar Wagener, Getronics, Spain
Marco Winckler, Université Nice Sophia Antipolis (Polytecj), France