

Connecting and Serving the Software Engineering Community

Matthew B. Dwyer

FOR more than four decades *TSE* has served as one of the most highly regarded archival venues in the field of software engineering. The standards that the community of editors and reviewers has established and that authors have met make *TSE* a journal where one can reliably find well-presented reports on novel, impactful and well-validated results.

While archival journal publication has great value, ultimately the role of *TSE* is to serve and connect the growing international community of software engineering researchers and practitioners. I know that *TSE* has served my colleagues and me by exposing us to ideas from researchers around the world. *TSE* has also helped me to establish personal connections and collaborations—a paper is a great conversation starter. In 2015 we made two steps to enhance the service and connections that *TSE* provides.

First, as a consequence of the refinements we have made to our manuscript review process we have been able to reduce the time from submission to electronic publication of manuscripts from over 13 months to under 11 months. For manuscripts that are not published we regularly provide feedback in a few weeks or months. Our goal is to continue to perform the highest-quality review possible, but to make sure that we expedite the review process so that results get out to the community as soon as possible.

Second, we have recently created a Facebook community for *TSE* (<https://www.facebook.com/ieeetse/>) and are working to flow content from the journal to the page. I'd like to thank Jane Cleland-Huang and Sung Kim who have taken the lead in this effort. If you have ideas for content you would like to see on the page please contact any one of us.

PEOPLE MAKE *TSE* WORK

Associate editors of *TSE* play a critical role. They assess manuscripts to make judgments about their appropriateness for the journal. When appropriate they commission a set of reviews from experts in the field. Perhaps most critically, when reviews are returned they interpret and synthesize the set of reviews to provide a coherent message and judgment to the authors about their paper.

Four members of the editorial board retired in 2015: Siobhan Clarke, Patrick Heymans, Laurie Williams, and Tim Menzies. I thank each of them for their service, which, in some cases, is continuing as they shepherd papers through the review process.

In 2015 and early 2016 *TSE* has been fortunate to add the following Associate Editors: Charles Zhang, Raffaella Mirandola, Ana Moreira, Sunghun Kim, Brian Fitzgerald, Stephen Siegel, Forrest Shull, Emilia Mendes, Miryung Kim, Andrew Ko, Eric Bodden, and Tao Xie. This is a diverse group spanning seven countries, three continents, and a wide range of software engineering topics with deep expertise. I look forward to working with them over the next two years.

Matthew B. Dwyer
Editor in Chief



Eric Bodden is one of the leading experts on secure software engineering, with a specialty in building highly precise tools for automated program analysis. He is a professor of software engineering at Paderborn University and the co-director of Fraunhofer IEM. Further, he is a member of the directorate of the Collaborative Research Center CROSSING at TU Darmstadt. At Fraunhofer IEM, he is the head of the attract-group on Secure Software Engineering. In this function, he is developing code analysis technology for security, in collaboration with the leading national and international software development companies. In 2014, the DFG awarded him the Heinz Maier-Leibnitz-Preis. In 2013, BITKOM elected him into their mentoring program BITKOM Management Club.

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Brian Fitzgerald received the PhD degree from the University of London, London, United Kingdom. He is a chief scientist at Lero—the Irish Software Research Centre. He also holds an endowed professorship, the Krehbiel Chair in Innovation in Business & Technology, at the University of Limerick (UL), Republic of Ireland, and served as the vice president research at UL from 2008–2011. His research interests lie primarily in software development, encompassing open source and inner source, crowdsourcing software development, agile and lean software development, and global software development. His publications include 14 books, and over 150 peer-reviewed articles in the leading international journals and conferences in both the Information Systems and Software Engineering fields, including *MIS Quarterly* (MISQ), *Information Systems Research* (ISR), *IEEE Transactions on Software Engineering* (TSE), and *ACM Transactions on Software Engineering Methodology* (TOSEM). Prior to taking up an academic position, he worked in the software industry for about 12 years, in a variety of sectors (including finance, telecommunications, manufacturing, bespoke software development) in a number of countries (Ireland, Belgium, Germany).



Miryung Kim received the BS degree in computer science from the Korea Advanced Institute of Science and Technology, Yuseong-gu, Daejeon, South Korea, in 2001 and the MS and PhD degrees in computer science and engineering from the University of Washington, Seattle, WA, USA, under the supervision of Dr. D. Notkin, in 2003 and 2008, respectively. She is an associate professor in the Department of Computer Science at the University of California, Los Angeles. Her research interest includes software engineering, specifically on software evolution. She develops software analysis algorithms and development tools to improve programmer productivity and program correctness. She also conducts user studies with professional software engineers and carries out quantitative, statistical analysis of open source project data to allow data-driven decisions for designing novel software engineering tools. Between January 2009 and August 2014, she was an assistant professor in the Department of Electrical and Computer Engineering, University of Texas at Austin. She is currently an associate professor in the Department of Computer Science, University of California, Los Angeles. She received the NSF CAREER Award in 2011, the Microsoft Software Engineering Innovation Foundation Award in 2011, the IBM Jazz Innovation Award in 2009, the Google Faculty Research Award in 2014, and the Okawa Foundation Research Grant Award in 2015.



Sunghun Kim received the BS degree in electrical engineering from Daegu University, Korea, in 1996, and the PhD degree in the computer science from the University of California, Santa Cruz, CA, USA, in 2006. He is an associate professor of computer science at the Hong Kong University of Science and Technology, Hong Kong. He was a postdoctoral associate at the Massachusetts Institute of Technology and a member of the Program Analysis Group. He was a Chief Technical Officer (CTO) and led a 25-person team at the Nara Vision Co. Ltd, a leading Internet software company in Korea for six years. His core research area is Software Engineering, focusing on software evolution, program analysis and empirical studies. He publishes his work on top venues such as TSE, ICSE, FSE, AACL, SOSP and ISSTA. He is a four-time winner of the ACM SIGSOFT Distinguished Paper Award (ICSE 2007, ASE 2012, ICSE 2013 and ISSTA 2014). Besides, he received various awards including 2010 and 2011 Microsoft Software Innovation Awards and 2011 Google Faculty Research Award. He served on a variety of program committees including FSE 2011, FSE 2013, FSE 2015, ASE 2013, ICSE 2012, ICSE 2013, and ICSE 2016. He was a program co-chair of MSR 2013 and 2014.



Andrew J. Ko received the PhD degree from Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh, PA, USA, in 2008, and degrees in computer science and psychology from Oregon State University, Corvallis, OR, USA, in 2002. He is an associate professor at the University of Washington Information School and an adjunct associate professor in computer science and engineering. His research interests include interactions between people and code, spanning the areas of human-computer interaction, computing education, and software engineering. He is the author of over 80 peer-reviewed publications, 8 receiving best paper awards, and 2 receiving most influential paper awards. In 2013, he co-founded AnswerDash, a SaaS company offering instant answers on websites using a selection-based search technology invented in his lab. In 2010, he received the NSF CAREER award to support his research and teaching on evidence-based bug triage.



Emilia Mendes received the PhD degree from the University of Southampton, United Kingdom, in March 1999. She is a full professor in computer science at the Blekinge Institute of Technology, in the Faculty of Computing Sciences Karlskrona, Sweden, and also a Finnish distinguished professor (FiDiPro) at the University of Oulu Finland. She moved to Auckland (New Zealand) to start her full-time academic career, where she began carrying out research in the areas of Web effort estimation, software effort estimation and Web metrics. These research areas led to several publications, one edited and two authored books, and have been the topic of several Master's and PhD theses she supervised and co-supervised. The bulk of the research with which she is involved is applied, and falls within computer science and empirical software engineering (e.g., machine learning applied to Web and software effort estimation and software maintainability prediction, value-based estimation using Bayesian Networks, cost estimation, use of an evidence-based paradigm, Web measurement and metrics). However, recently she has also started to branch out a bit more into other fields to which computer science can also be applied: healthcare and sustainability. Such work is being carried out via the supervision of PhD students at BTH. She has given,

date, 10 keynotes at international and local conferences and workshops, and invited talks at numerous events and has also received best paper awards at seven international conferences (twice at ESEM). Prior to leaving Brazil in August 1995 to carry out her PhD in the UK she worked as a software practitioner.



Raffaella Mirandola is associate professor in the Dipartimento di Elettronica, Informazione e Bioingegneria at Politecnico di Milano, Milano, Italy. Her research interests include the areas of performance and reliability modeling and analysis of software/hardware systems with special emphasis on: methods for the automatic generation of performance and reliability models for component-based and service-based systems, and methods to develop software that is dependable and can easily evolve, possibly self-adapting its behavior. She has published over 100 journal and conference articles on these topics. She served and is currently serving in the program committees of conferences in the research areas and she is a member of the Editorial Board of *Journal of System and Software*, Elsevier. She has been involved in several national and European research projects.



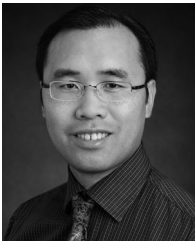
Ana Moreira is an associate professor at Universidade Nova de Lisboa, Lisbon, Portugal, where she leads the Software Engineering group. Currently, her main research topics are requirements engineering and architecture design, model-driven development, advanced modularization for software development, variability and trade-off analysis. She has been involved in several projects about advanced software engineering techniques, such as MDD, SPL, and AOSD. She has been a member of the steering committee for MODELS and AOSD. She is a member of the Editorial Board of *SoSyM (Software and Systems Modeling)*. She has been, and is, involved, as organizer and program committee member, in several international conferences (e.g., ECOOP, MODELS, RE, CAiSE, and AOSD) and has co-organized many international workshops. She was the conference chair and program committee chair of several international events and was the foundations track chair for MODELS 2013.



Forrest Shull is the assistant director for Empirical Research at Carnegie Mellon University's Software Engineering Institute (SEI), Pittsburgh, PA, USA. His role is to lead work with the US Department of Defense, other government agencies, national labs, industry, and academic institutions to advance the use of empirically grounded information in software engineering, cybersecurity, and emerging technologies. He joined SEI after 15 years at Fraunhofer USA, a nonprofit research and tech transfer organization, where he established and was the director of the Measurement and Knowledge Management Division. He has been a lead researcher on projects for the U.S. DoD, NASA's office of safety and mission assurance (OSMA), the NASA safety center, the defense advanced research projects agency (DARPA), the national science foundation, and commercial companies. He served as the Editor in Chief of *IEEE Software*, the premier publication for bridging software research and practice, from 2011 to 2014, during which time he oversaw the launch of the digital edition of the periodical and significantly increased the subscriber base. He is the originator of *IEEE Software's* "Software Experts Summit," an annual one-day event that showcases talks from thought leaders in the software industry at cities around the world. Starting in 2015, he is a member of the Board of Governors of the *IEEE Computer Society*. He is also co-editor of the *Guide to Advanced Empirical Software Engineering*.



Stephen Siegel received the PhD degree in mathematics from the University of Chicago, Chicago, IL, USA, in 1993. During his graduate studies, he spent a year at Oxford University as a Fulbright fellow, and after graduation was an NSF post-doctoral researcher at Northwestern University, Evanston, IL, USA. His mathematical research deals primarily with the theory of finite groups, especially applications of representation theory and cohomology to that field. He later became a senior research scientist in the Computer Science Department, University of Massachusetts, working in software engineering, with a focus on verification of concurrent programs. He is an associate professor at the Computer Science Department, University of Delaware with a joint appointment in the Mathematics Department. Today his research focuses on high performance and scientific computing, formal methods, and the interplay between those areas.



Tao Xie received the PhD degree in computer science from the University of Washington at Seattle, Seattle, WA, USA, in 2005. He is an associate professor and Willett faculty scholar in the Department of Computer Science, University of Illinois at Urbana-Champaign, IL, USA. He has worked as a visiting researcher at Microsoft Research. His research interests include software engineering, focusing on software testing, program analysis, software analytics, software security, and educational software engineering. He is an ACM Distinguished Scientist. He has served as the ACM SIGSOFT history liaison in the SIGSOFT executive committee as well as a member and the SGB liaison of the ACM history committee. He received the NSF CAREER Award in 2009. He received the 2014 Google Faculty Research Award, the 2011 Microsoft Research Software Engineering Innovation Foundation (SEIF) Award, 2008, 2009, and 2010 IBM Faculty Awards, and the 2008 IBM Jazz Innovation Award. He is an advisory board member of the *IEEE Software* magazine, an associate editor of the *ACM Transactions on Internet Technology (TOIT)*, and a leading editor of the *Journal of Computer Science and Technology (JCST)*. He was the program chair of 2015 International Symposium on Software Testing and Analysis (ISSTA). He is a Senior Member of IEEE.



Charles Zhang received the BSc, MSc, PhD degrees with honours, all from the University of Toronto, Toronto, ON, Canada. He is an associate professor in the Department of Computer Science and Engineering, Hong Kong University of Science and Technology (HKUST), Hong Kong. He has published extensively at premium conferences and journals such as PLDI, ICSE, FSE, ISSTA, OOPSLA, ECOOP, TOSEM, TSE, and TPDS. He has served on the organizational and technical committees of OOPSLA, ICSE, FSE, ISSTA, PLDI, Middleware, AOSD, and APSEC. His research received many awards, including the PLDI distinguished paper award, the ACM SIGSOFT Doctoral Dissertation Award, and the IBM PhD fellowships. Prior to his science endeavour, he spent a year in Beijing Normal University studying history. Before his graduate study, he worked as a software engineer at Motorola and a Silicon Valley startup.