Software Engineering without Borders

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Abstract—DevOps approaches software engineering by advocating the removal of borders between development and operations. DevOps emphasizes operational resilience, continuous feedback from operations back to development, and rapid deployment of features developed. In this talk we will look at selected (automation) aspects related to DevOps, based on our collaborations with various industrial partners. For example, we will explore (automated) methods for analyzing log data to support deployments and monitor REST API integrations, (search-based) test input generation for reproducing crashes and testing complex database queries, and zero downtime database schema evolution and deployment. We will close by looking at borders beyond those between development and operations, in order to see whether there are other borders we need to remove in order to strengthen the impact of software engineering research.

BIOGRAPHY

Arie van Deursen is professor in software engineering at Delft University of Technology, The Netherlands, where he heads the Software Engineering Research Group (SERG) and chairs the Department of Software Technology. His research interests include empirical software engineering, software testing, and software architecture. He aims at conducting research that will impact software engineering practice, and has co-founded two spin-off companies from earlier research. He serves on the editorial boards of Empirical Software Engineering, the ACM Transactions on Software Engineering, and the open access PeerJ/CS, and is program co-chair of ESEC/FSE 2017, the joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering.


The keynote will be based on joint work with former and current master and PhD students from Delft University of Technology, and co-workers in industry and academia.