Developing Effective Software Productively

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ABSTRACT

It is not uncommon to hear laments about how long it takes to build software systems and how often, once built, those systems fail to meet the needs and desires of users. Given that attention has been paid to how we build large software systems for over fifty years, you might wonder why we have not figured out how to build the systems people want in a reasonable amount of time. To put the problems into perspective, fifty years is half the lifespan of a Galapagos turtle and many software systems may be amongst the most complex systems ever built by humans. In that light, perhaps it is not surprising that we have not figured it all out. In this talk, I will explore what productivity means to software developers, how we might track the value that is delivered in software produced by developers and how we might begin to think about measuring the productive delivery of effective software.

CCS CONCEPTS

Software development techniques

KEYWORDS

Productivity, software development

BIOGRAPHY

Gail C. Murphy is a Professor of Computer Science and Vice-President Research and Innovation at the University of British Columbia. She is also a co-founder and Director at Tasktop Technologies Inc. Her research interests are in improving the productivity of software developers and knowledge workers by giving them tools to identify, manage and coordinate the information that really matters for their work. She is a Co-Chair for the Contributed Articles section of CACM and has previously served as a program co-chair for the International Conference on Software Engineering, as a program chair for the ACM SIGSOFT International Symposium on the Foundations of Software Engineering, as an Associate Editor for IEEE Transactions on Software Engineering and as an Associate Editor for the ACM Transactions on Software Engineering and Methodology. Her research group has received two ICSE Most Influential Paper awards and several best paper awards. She is a Fellow of the ACM and a Fellow of the Royal Society of Canada. She is the recipient of the 2018 IEEE Computer Society Harlan D. Mills award and a previous recipient of an NSERC E.W.R. Steacie Memorial Fellowship and the AITO Dahl-Nygaard Junior Prize.