The Many Faces of Software Analytics

FOCUS: GUEST EDITORS’ INTRODUCTION

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In 2012, we announced a special issue for IEEE Software: “Software Analytics: So What?” The response was overwhelming—so much so that we’ve spread those papers across two issues of this magazine. This second issue discusses the many faces of software analytics. The articles highlight the power of analytics for different types of organizations: large organizations and open source projects, as well as small- to medium-sized projects.

In “Software Analytics in Practice,” Tao Xie and his colleagues discuss methods for deploying large-scale analytics across Microsoft Research, Asia, for several research projects and show their impact on current industrial practices.

Jesus Gonzalez-Barahona and his colleagues discuss the use of analytics on an open source project in their article, “Using Software Analytics to Understand How Companies Interact in Free Software Communities.” The article shows how open source communities are performing in aspects that are of interest to companies and fundamental to ensure transparency and fairness.

Romain Robbes and his colleagues’ article, “Are Software Analytics Efforts Worthwhile for Small Companies? The Case of Amisoft,” addresses small- to medium-sized companies. The authors argue that analytics can indeed be applied to smaller organizations, but they caution that these small companies might require different kinds of analytics than those used in larger companies.

In “A Retrospective Study of Software Analytics Projects: In-Depth Interviews with Practitioners,” Ayse Tosum Misirli and her colleagues review their past work on analytics and reflect on what worked and what did not. We’re excited about this because studies that discuss successes and failures, as this article does, are far too rare in current literature.

We thank all the authors and reviewers who worked so hard on the two volumes of this special issue. We also give an extra vote of thanks to Forrest Shull and his team at IEEE Software for all their help throughout this process.

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