Recruiting Developers at Scale: the case for (and against) crowdsourcing

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Recruiting programmers for software development studies remains challenging. Costs can be high, samples may be small, and the impact of unintentional selection bias is easy to overlook. Crowdsourcing – the recruitment and use of online labour – has seen notable success in lowering costs and broadening access to data in areas such as machine learning and human computer interaction. Here, we consider the opportunities afforded by web-based crowdsourcing platforms: the potential to rapidly reach large numbers of software developers at low-cost. We discuss some of the challenges arising from large-scale participation, such as user validation and data analysis. And, finally, we look forward as we consider and reflect upon the increasing flexibility, relevance, and use of web-technologies in the developer experience and development lifecycle.

 $CCS\ Concepts: \bullet\ Human-centered\ computing \rightarrow Empirical\ studies\ in\ HCI; \bullet\ Software\ and\ its\ engineering \rightarrow Software\ development\ methods; Integrated\ and\ visual\ development\ environments.$

Additional Key Words and Phrases: programming, developers, behaviour, crowdsourcing