Programmer Experience: A Systematic Mapping

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User eXperience (UX) identifies the perceptions of people over of the use (or even the anticipated use) of a product, system or service. The programmers are users of specific systems, and several types of software development artifacts, such as programming environments and design documents. We performed a systematic mapping about Programmer eXperience (PX). In this work we consider the programmers as a particular type of users of particular artifacts. We therefore consider PX as a particular type of UX. The literature usually focuses on PX from a Software Engineering point of view. We analyzed PX mainly from a Human-Computer Interaction (HCI) perspective. We reviewed articles about PX, empirical studies related to aspects of PX, and studies addressing PX on programming environments. The results show that there is an interest on the PX, but the concept is not yet clearly defined. We found 40 articles published in the last ten years and established that the studies address usability and PX aspects focusing on four topics: (i) programming languages, (ii) programmers' interaction with the integrated development environment, (iii) application programming interfaces, and (iv) articles about programmers' behavior. It is a relatively small numbers of articles, compared with other Software Engineering or HCI areas. This represents a research opportunity for this systematic review and others that can be performed.

Programmer experience

Programming environments

Systematic mapping

Usability

User experience

Application programming interfaces (API)

Human computer interaction

Mapping

Software design

User experience

Human computer interaction (HCI)

Integrated development environment

Programmer experiences

Programming environment

Research opportunities

Systematic mapping

Systematic Review

User experiences (ux)

Computer programming