

Reading as Part of Computer Programming. An Ethnomethodological Enquiry

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Abstract. This paper examines reading as done by programmers engaged in software development. Reading is an activity we feel should be of fundamental interest to studies of programming, but the practical achievement of which has not been closely examined. We give examples of programmers reading in pairs, and reading alone, and show reading in both cases to be explainable in terms of shared social practices. These practices are not determined by the code but nor are they purely socially constructed; rather they lie in the linkage between the code and programmers' ways of reading the code. We discuss (1) how features of day-to-day coding work create pertinent occasions for reading a certain piece of code, (2) how programmers order and expect there to be an order to code, and (3) how programmers have ways of analysing code in order to make sense of it. This is an ethnomethodological study that draws from ethnographic fieldwork at a professional software development company.

Introduction

“Reading is neither in a text nor in the reader. It consists of social phenomena, known through the achievements which lie between the text and the reader's eye, in the reader's implementation of society's ways of reading, in reading what a text says.”
Livingston [17, p16]

In this paper we argue that reading is social, practical and situationally grounded. We will demonstrate how: (1) some reading is obviously collaborative, (2) reading draws upon shared practices, and (3) even 'reading to oneself' is socially organized and oriented, and often publicly available. By this we are not arguing that people never 'read to themselves' silently or *sotto voce*, but rather that reading to oneself is undertaken using socially learned and shared practices, and is in many cases observable as the activity and practices of reading. As Livingston states in the quote above, reading is not to be located in the reader or the text but in the social practices the reader is able to apply to the text. We seek to clarify how programmers and programming technologies together implement programming's ways of reading. We have undertaken this study of reading as we see reading to be a fundamental aspect of programming, and hope that this research can help us in moving towards a better understanding of programming tasks or actions that involve reading (eg. testing, debug-

