Programming as Theory Building

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Motivación

- Qué es el desarrollo de software

- Cual es la esencia de la práctica de programar

Contra qué argumenta*

- "programming should be regarded as **a production of a program and certain other texts**"

- programación es la etapa de **implementación**

- el programa y su documentación son siempre suficientes para expresar las ideas de diseño más importantes*

Noción de Teoría que utiliza

No está hablando exclusivamente de teoría científica. Concepción de Ryle

"theory is understood as the knowledge a person must have in order not only **to do** certain things intelligently but also to **explain** them, to **answer** queries about them, to **argue** about them, and so forth. A person who has a theory is prepared to enter into such activities; while building the theory the person is trying to get it."

Es un paper con valores

"Theory Building **View** of Programming"

Solo un programador que tiene la teoría puede explicar y modificar el programa.

En programación no solo importa la objetividad. También concepciones, puntos de vista, valores.

Centralidad del humano

A main claim of the Theory Building View of programming is that an essential part of any program, the **theory** of it, **is something that could not conceivably be expressed***, but is **inextricably bound to human beings**.

Rechazo al método*

"a programming method will be taken to be a set of **work rules** for programmers, telling what kind of **things** the programmers **should do, in what order, which notations or languages to use,** and what kinds of **documents to produce** at various stages"

"with the Theory Building View of programming, the most important issue is that of **actions or operations and their ordering**"

"A method implies a claim that program development can and should proceed as a sequence of actions of certain kinds"*

Rechazo al método

Sustenta su postura con dos argumentos:

- No hay método científico (cita a Feyerabend)
- No hay estudios acerca del uso exitoso de métodos en el desarrollo de software

No es relevante a Notación*

"As to the use of particular kinds of notation or formalization, again this can only be a secondary issue since the primary item, the theory, is not, and cannot be, expressed, and so no question of the form of its expression arises"

Status del programador

"Since this theory by its very nature is part of the mental possession of each programmer, it follows that the notion of the **programmer as an easily replaceable component** in the program production activity has to be abandoned"

Educación del programador

"furthering the understanding and talent for theory formation"

"their **education has to emphasize the exercise of theory building**, side by side with the acquisition of knowledge of data processing and notations"