Origin of Software Engineering

Introduction to Software Engineering

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Learning Objectives

By the end of this video, you will be able to

• Explain how the field of software engineering was started.
• Distinguish software engineering from programming.
Loose Coupling of **Programming** and **Computing** (1950s-1960s)

Punch card with a line of COBOL programming on it (Gerhards, 2006)
Batch Processing ➔ Time Sharing (1960s)

Early accounting operations at U.S. Social Security Administration

Ken Thompson (sitting) & Dennis Ritchie at PDP-11 (Hamer, 1970)
How to Handle Software Crisis?
How to Define Software Engineering?
SOFTWARE ENGINEERING

Report on a conference sponsored by the NATO SCIENCE COMMITTEE

Garmisch, Germany, 7th to 11th October 1968

(Naur and Randell, 1969)
One-Person vs. Multi-Person Development

(Parnas, 1975)
“Adding manpower to a late software project makes it later.”
- Fred Brooks, 1999 Turing Award Winner (Brooks, 1975)
Single-Version vs. Multi-Version Programs

(Parnas, 1975)
Information Hiding (Parnas, 1972)
References


The End