Using History in Software Engineering Courses

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Trained as an Historian, Practice Software Engineering…..

• It is difficult to tell where history leaves off and computer science starts
• My background lends itself to using history
First Model: a Mini-Semester History of Computing Course

- Used to fulfill IS requirement
- Eight weeks general history
- Full semester freshman seminar with projects
- ‘Problem’ or topical approach
Te Use of History in the Managing Software Development Course

- Case studies [like those from Harvard Business School]
- The NASA F-8 DFBW in a requirements exercise
History in the Analysis of Software Artifacts Course

• statistical testing exercise using the pilot’s input panel
The Case of the Apollo Spacecraft Computer in the Real Time and Analysis Courses

• Showing how single string computers can be supported
• Charles Stark Draper Lab and the cyclic OS
Software Development
Life-Cycle Models

• The term 'paradigm' is overloaded
• Software development life cycles as paradigms
• Software engineering has settled on the cyclic paradigm; it took 30 yrs.
The History of Unmanned Spacecraft as Models

- Served as the basis for experimentation
- Simple metaphors
Real Time Systems Course

- Uses manned spacecraft computers as examples
The Software Development Studio

- Software as engineering
  - The Davis wing
  - Hangar sizes