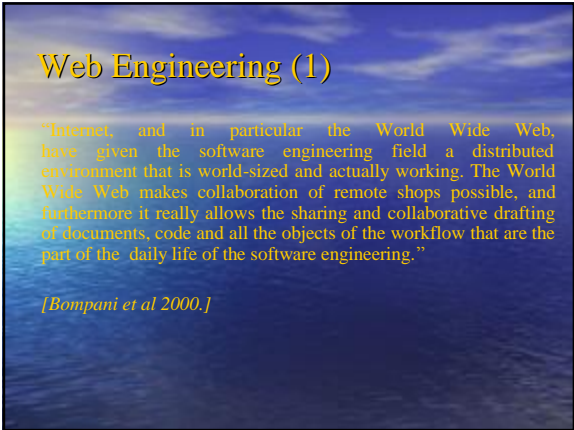




MIC 309 – SEMINAR 2

“Web Engineering Against Software Engineering”

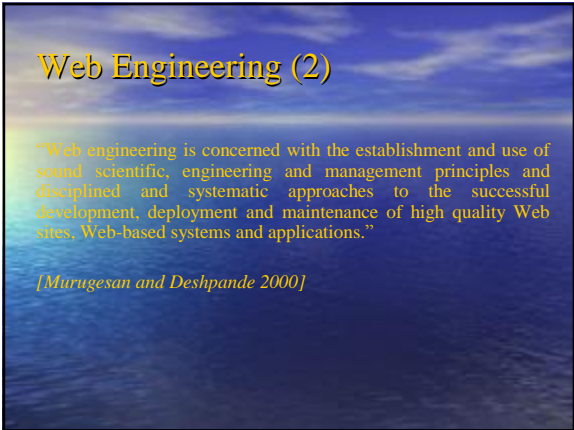
by Alexander Beisser, Abbas Motara, George Onisiforou, Nayiri Yildizian



Web Engineering (1)

“Internet, and in particular the World Wide Web, have given the software engineering field a distributed environment that is world-sized and actually working. The World Wide Web makes collaboration of remote shops possible, and furthermore it really allows the sharing and collaborative drafting of documents, code and all the objects of the workflow that are the part of the daily life of the software engineering.”

[Bompani et al 2000.]



Web Engineering (2)

“Web engineering is concerned with the establishment and use of sound scientific, engineering and management principles and disciplined and systematic approaches to the successful development, deployment and maintenance of high quality Web sites, Web-based systems and applications.”

[Murugesan and Deshpande 2000]

Web Engineering in Contrast to Software Engineering

“Web-based systems and applications (WebApps) deliver a complex array of content and functionality to a broad population of end-users. Web-engineering is the process that is used to create high-quality WebApps. Web engineering is not a perfect clone of software engineering, but it borrows many of software engineering's fundamental concepts and principles, emphasizing the same technical and management activities. There are subtle differences in the way these activities are conducted, but an overriding philosophy that dictates a disciplined approach to the development of a computer-based system is identical.”

[<http://www.rspa.com/spi/webe.html>]

Software Engineering (1)

In the IEEE collection of standards, software engineering is defined as:

- “The application of a systematic, disciplined, quantifiable approach to the development, operation and maintenance of software, i.e. the application of engineering to software.”
- The study of approaches in the application of engineering to software.”

[Institute of Electrical and Electronics Engineers, Inc. (IEEE 610.12)]

Software Engineering (2)

“Software engineering, as a discipline in its own right, is reaching the end of its third decade. Software engineering is an engineering discipline. It is different from traditional engineering disciplines in certain crucial ways.”

“Engineering refers to the practice of organising the design and construction of any artifice which transforms the physical world around us to meet some recognised need.”

[Maibaum 1998]

Characteristics of Software Engineering

“Compared with other engineering disciplines:

- Software engineering is relatively new.
- Software products are abstract.
- Environment is rapidly changing.”

[<http://www.cs.bris.ac.uk/Teaching/Resources/COMS71200/se1-30.pdf>]

Web and Software Engineering – The similarities

- Practise of good coding
- Web engineering have its root in software engineering
- Web engineering relies on software engineering

Web Engineering – The differences

- Shared coding
- Collaboration
- World-wide Client-Server-Architecture
- Use of Markup-Languages (HTML, XML, UML, SGML, RDF)
- Active documents (OpenDoc, ActiveX, JavaBeans)
- Security issues arises

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