

First Class Web Engineering

Qiuyan Huo 霍秋艳 qyhuo@mail.xidian.edu.cn Software Engineering Institute

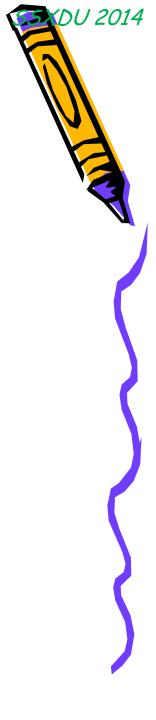


Recommended Literature

- Architecture of the World Wide Web
 - http://w3.org/TR/webarch/
- History of the World Wide Web
 - http://w3.org/History.html
- •

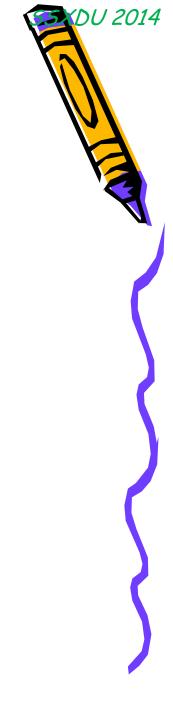
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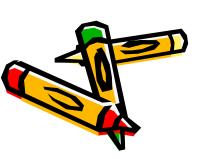
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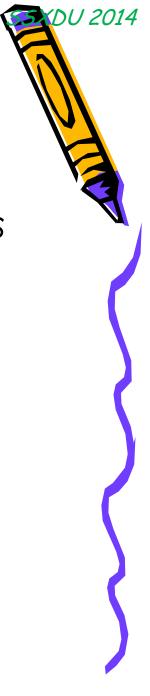
- Presentations
- Website reviews
- Discussion encouraged
- Practical exercises: Tasks
 - Searching for real-world examples
 - Developing a small-sized project
 - Creating short pages, stylesheets, code
 - Hands-on protocol use
 - **–**
- Homework exam



Evaluation

- Personal:
 - Attendance & Homework: 20 points
- Project 30 points
- Exam 50 points
- Total 100 points

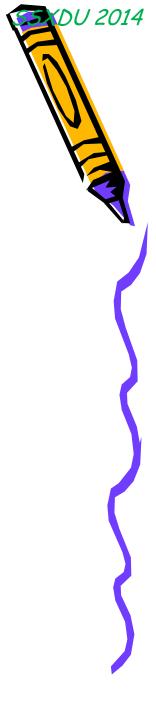




Tasks

- Personal Task: 自己的观点、学术论文的格式
 - MS Word, PDF
- Project
 - Documents: MS Word or PDF
 - Presentation(s)
 - Pages and Code
 - Online, ZIP, WAR good
 - Screenshots usually not necessary
- By Email
 - qyhuo@mail.xidian.edu.cn
- Credits come from essays or documents or pages or code or presentations
 - Points for argumentation, depth & breadth

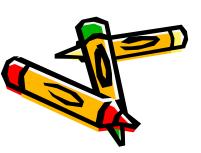




First Class Web Engineering

And now for something completely different

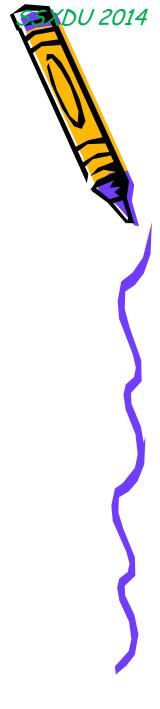
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Website Review Time!

- tvweb360.tv
- Google.com or Bing
- CNN.com
- Amazon.com
- Slashdot.org
- tbray.org
- Sourceforge.net
- JoeCartoon.com
- HarryPotter.com see also fox.com/24/
- Xidian.edu.cn







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QUICTools for Quantel Enhanced media management tools for Quantel sQ Video Server owners www.radio

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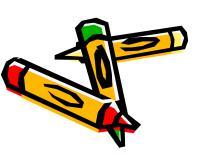
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tvweb360.com

- Present a portal to TV on the Web
- Provide Google easy search
- Earn money from Google ads or ?





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Google 学术: web工程 理论与实践

<u>一种基于XML 的Web 数据挖掘模型</u> - 沈洁 - Cited by 31

EDA 工程的理论与实践 - 曾繁泰 - Cited by 23

<u>基于Web 的同步远程协同产品设计的实现</u> - 江平宇 - Cited by 20

Web 工程-理论与实践/霍秋艳等编著著/清华大学 - 中国...

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Sep 1, 2011 - ... 网还可了解到《Web 工程-理论与实践》作者、价格、内容介绍等信息。欢迎购买《Web 工程-理论与实践》,中国图书网为您提供低价、快速的优质服务。

Web工程(豆瓣) - 豆瓣读书

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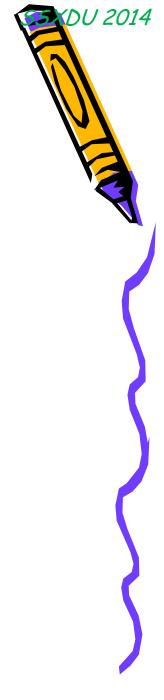


Google

- Simple function, simple site
- In China?
- Changing logo = nice touch
- Subtle change of results page = shock
 - http://ars.userfriendly.org/cartoons/?id=20040330
- Little transformation over years
- Money from ads
- See also yahoo.com
 - Anybody still using that?
 - Big transformation from Directory to Portal

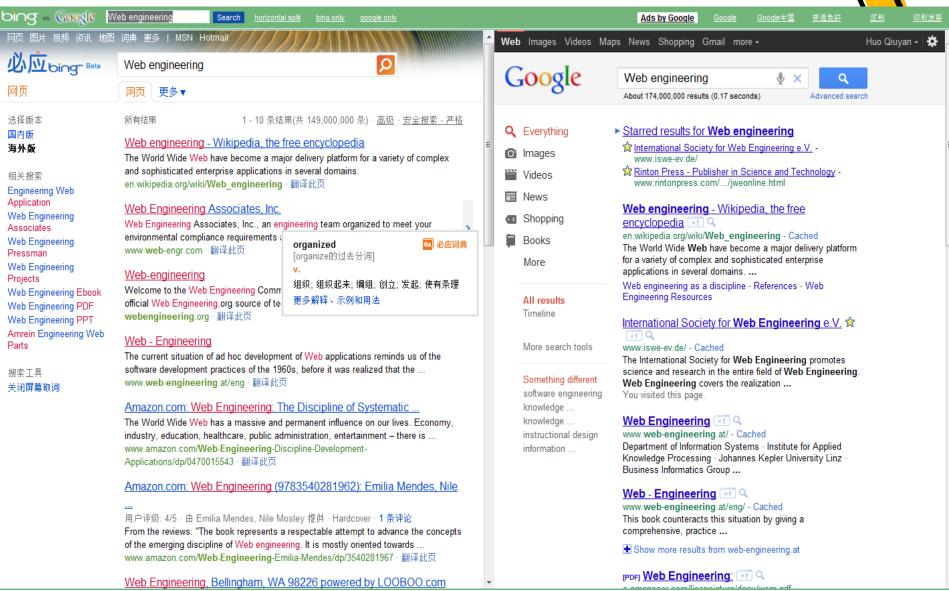


Google vs. Bing



Bing VS. Google



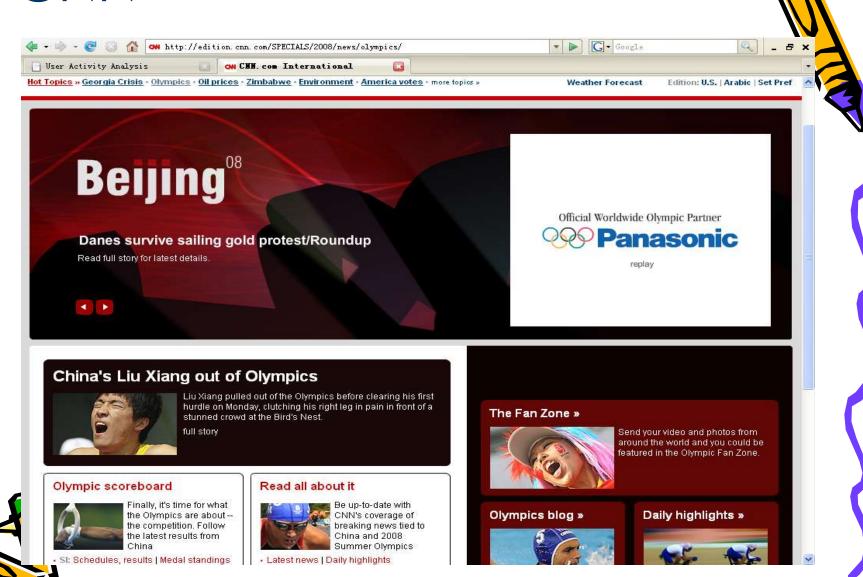


CNN



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CNN



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May 5, 2014 - Updated 1009 GMT (1809 HKT) Edited by Peter Wilkinson in London

Make CNN Your Homepage

EDITOR'S CHOICE

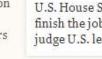
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The storming of Odessa police station -- two days after 40 die in a street battle -- shows how Ukraine's leaders are struggling to maintain order.

- Building fire kills dozens
- Is civil war looming?





- · NATO: Thorn in Russia's side
- · Activists hit police HQ -

PISTORIUS TRIAL

- Witness: Pistorius 'praying, crying'
- LIVE: Minute-by-minute updates
- Is Pistorius being coached?
- Pistorius trial: What's next?



U.S. House Speaker John Boehner says his country needs to finish the job right in Afghanistan, arguing that history will judge U.S. leaders on how the war was ended. FULL STORY

UKRAINE ON EDGE



Enemies maintain fragile truce

How will tense standoff in Ukraine play out after violent clashes?

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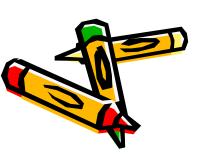


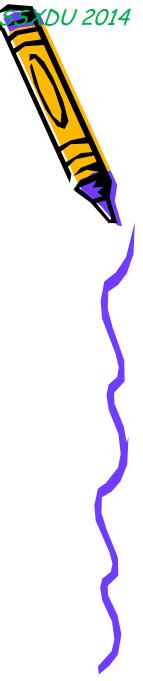




CNN

- News site = lots of information
- Little transformation(変換)
- Money from ads, premium information
- See also foxnews.com
- See also theonion.com
 - Limited information
 - Update every week (maybe every day)
 - Money from ads, print edition





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web engineering

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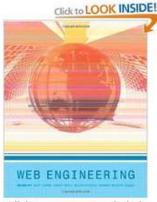
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Gerti Kappel (Editor), Birgit Prýýll (Editor), Siegfried Reich (Editor), Werner Retschitzegger (Editor) ****

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Book Description

Publication Date: June 16, 2006 | ISBN-10: 0470015543 | ISBN-13: 978-0470015544 | Edition: 1

The World Wide Web has a massive and permanent influence on our lives. Economy, industry, education, healthcare, public administration, entertainment - there is hardly any part of our daily lives which has not been pervaded by the Internet. Accordingly, modern Web applications are fully-fledged, complex software systems, and in order to be successful their development must be thorough and systematic.

This book presents a new discipline called Web Engineering taking a rigorous interdisciplinary approach to the development of Web applications, covering Web development concepts, methods, tools and techniques. It highlights the need to examine and re-use the body of knowledge found within software engineering and demonstrates how to use that knowledge within the Web environment, putting emphasize on current practices, experiences and pitfalls.





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21世纪高等学校规划教材·软件工程:Web工程:理论与实践 [平装]

~ 臺秋艳 (作者), 徐学洲 (作者), 陈静玉 (作者), 何昊 (作者), 签 (作者)

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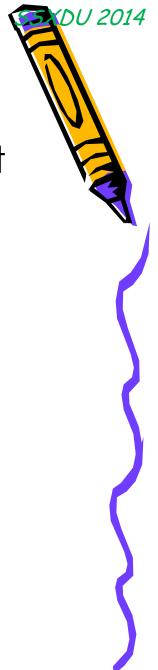
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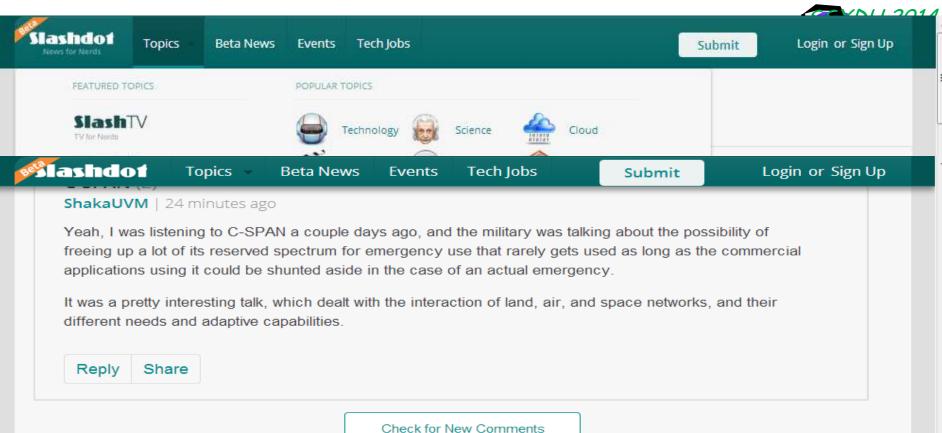
《21世纪高等学校规划教材●软件工程:Web工程:理论与实践》系统地介绍了综合而系统化地开发高质量的Web应用的原理、方法、技 术和工具,内容涵美Web应用的特征、Web工程开发过程和Web顶目管理、Web顶目需求工程、Web应用建模、Web应用架构。

Amazon

- Lots of information, timely updates not vital
- Money directly from sales
- Only internal ads
- Partly user-enriched
 - Reviews, comments
- Direct access API
- Transforming into e-business platform
- See also ebay.com









The Bay Area · Last week I announced that I was leaving Google and said in passing that I found the Bay Area "congested, racist, incestuous, and overpriced". Those four adjectives were apparently more newsworthy than my career moves; fair enough. The reaction (and there was a lot of it) ranged from giggly agreement to sincere anger. So I should follow up ...

8+1 0

Short-form Fragments · Week ending Sunday 2014/02/23 ...

8+1 0

Leaving Google · As of March 17th I'll be an exemployee. It's an amicable separation in the face of irreconcilable differences: I wouldn't move to California and Google wouldn't open a Vancouver office. I haven't decided what to do next ...

[55 comments] 84 506

Ingress in 2014 · It was stormy at dusk last Sunday; Shoekey and I hunched shoulder-to-shoulder in a waterfront park, 90 km/h of swirling wind driving a mix of fresh rain and salt spray at us from every direction, zip-loc-bagged Androids in hand. Because in a big Ingress op, you gotta do what you gotta do. Yeah, I'm playing again ...

[1 comment] 8+1 58

Short-form Fragments · Week ending Sunday 2014/02/16 ...

What this is
Truth Biz Tech
author Dad
software colophon
rights

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When? (4388 fragments)
What? (322 categories)

By Tim Bray.

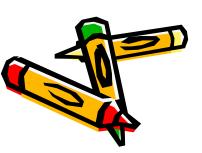
I work for Google, but the opinions expressed here are my own, and no other party necessarily agrees with them.

A full disclosure of my professional interests is on the **author** page.



Tim Bray ongoing

- Ongoing fragmented essay (blog, weblog)
- Truth, Technology, and Business
- Ongoing discussion
- Lots of links

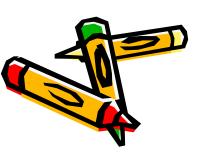




Source Forge

- Shared home for FOSS projects
 - Free and open-source software
- Features support project development
- Small ads, subscriptions(订阅)









PRESS & SPLODE SUPER FLY **EVERYTHING ELSE** SHOP THUH GREENFIELDS IN A BLENDER



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Skippin' Rock -A Real Cool Town



Joe Catch



Simon Cowell in a Blender



Latest Content

RSS | Atom



Everything Else:

Devil Can't #2

Eriday February 22nd 2013





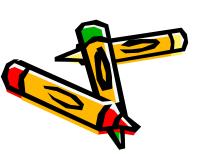
episodes and playthings

Top Rated Most Viewed Displaying 1-5 Devil Can't #2 1 Comment » Meet Ken No Comments » Gerbil Valentine

No Comments »

Joe Cartoon

- Limited space in browser
- Lots of flash
- Changes for better design/usability
- Ads again







Get Harry Potter Movie and DVD Updates

PRE-ORDER NOW

ABOUT

PHOTOS

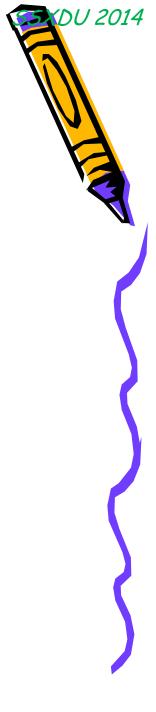
VIDEOS

HARRY POTTER SHOP



Harry Potter

- Presentation of a movie
- Whole site is an advertisement
- Can expect transformation with new sequels (续集、结局)
- Links to WEB site
 - Even the URI is redirected there
- See also
 - fox.com/24
 - fox.com/prisonbreak





综合信息网 | 网站地图 | English

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0	西电开展开学教学情况大检查 检查工作为期一周	02-25	
0	中国载人航天工程总设计师周建平院士来校调研	02-25	
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◈ 关于参	参加教育系统党风廉政建设工作暨全国治	2-23
◈ 关于?	3开2014年上半年学校工作会议的通知	2-23
关于x	村南校区住宅楼组团内道路进行面层铺装	2-22
关于5	。 	2-21



第四届教职工代表大会 第八次会议专题

苗么

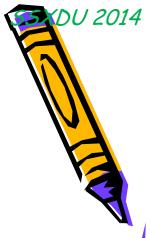
University of Xidian

- Presentation of University
- Also various services (very limited)
- No ads
- See also MIT.edu



- Still has the current date on the top
- Hard-core technological
- See also jhu.edu
 - Search can really search
 - Services
 - References

ving towards simplicity



HTML5



W3C

Add developer-view styles

HTML5

A vocabulary and associated APIs for HTML and XHTML

W3C Candidate Recommendation 29 April 2014

This Version:

http://www.w3.org/TR/2014/CR-html5-20140429/

Latest Published Version:

http://www.w3.org/TR/html5/

Latest Editor's Draft:

http://www.w3.org/html/wg/drafts/html/CR/

Previous Versions:

http://www.w3.org/TR/2012/CR-html5-20121217/

Editors:

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Edward O'Connor, Apple Inc.

Silvia Pfeiffer

WHATWG:

lan Hickson, Google, Inc.

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1 Introduction

1.1 Background

1.2 Audience

1.3 Scope

1.4 History

1.5 Design notes

1.5.1 Serializability of script execut

1.5.2 Compliance with other specifi

1.5.3 Extensibility

1.6 HTML vs XHTML

2.5.3 Dynamic changes to base URLs

When an xml:base attribute is set, changed, or removed, the attribute's element, and all descends

When a document's document base URL changes, all elements in that document are affected by a

The following are base URL change steps, which run when an element is affected by a base URL c

→ If the element creates a hyperlink

If the absolute URL identified by the hyperlink is being shown to the user, or if any data do the element and the UI updated appropriately.

Abstract

For example, the CSS :link/:visited pseudo-classes might have been affected.

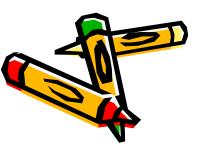
This specification defines the 5th major revision of the core language of the World Wide Web: the Hypertext Markup Language (HTML). In this version, new features are introduced to help Web application authors, new elements are introduced based on research into prevailing authoring practices, and special attention has been given to defining clear conformance criteria for user agents in an effort to improve interoperability.

HTML5 Specification

Different from the previous, isn't it?

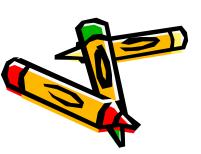
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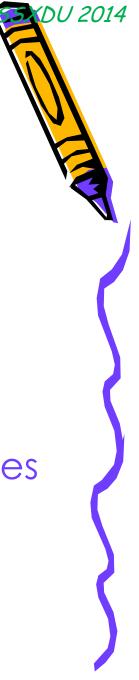
- Lots of text, lots of internal links, few figures
- No transformation
- No ads



What are we talking about?

- User experience
- Purpose of a site
- Target audience
- Presentation
- Accessibility
- Evolution
- Business model
- Systematic and quantifiable approaches to build Web applications.





Site Purpose

Site has information and/or services

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- What is the main purpose?
 - Making money?
- Why would someone come here?
- And what is their perception(感知、认知) of the purpose?

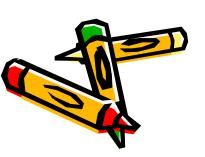


Target Audience

- Who is site purpose aimed at?
 - American public often at the top
- Who is the perceived (观察到的) target audience?

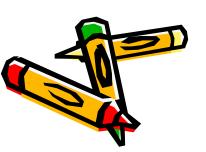
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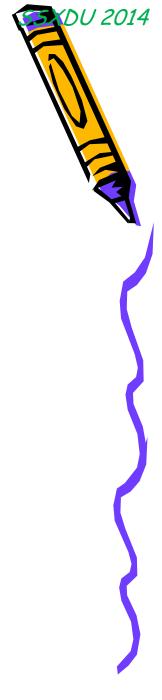
- Can the audience use the purpose?
 - Languages
 - Accessibility



Site Purpose Examples

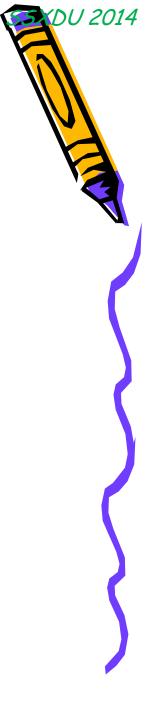
- Propagation(传播), advertisement
 - Harry Potter, UIBK
- Sale of goods on-line
 - Amazon
- Static information dissemination(传播分发)
 - CNN, JoeCartoon, HTML spec
- Dynamic information services
 - Google, SourceForge, Bing
- Etc.





Presentation vs. Accessibility

- User experience
- Form follows function
- Web interface pretty simple
- Optimal information density
- Requirements for different audiences
 - Distraction by related links
 - Sugar coating(糖衣)
 - First impression(第一印象)
 - Navigation style
 - Languages



Site Evolution

- Evolution of the purpose
 - Getting closer to perceived purpose
 - Make money differently
- Changes in design, presentation
- Reimplementation
 - Necessity of other changes?
- See Wayback Machine: web.archive.org

Text book and reference books

• 霍秋艳:《Web工程—理论与实践》,清华出版社,2011年9月。

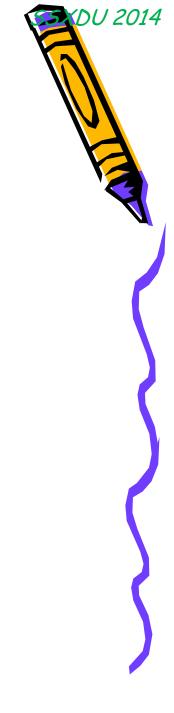
- Gerti Kappel, Birgit Pröll, Siegfried Reich, Werner Retschitzegger: <u>Web Engineering: The Discipline</u> <u>of Systematic Development of Web Applications</u>, 1st Edition, John Wiley & Sons, June 2006, ISBN 0-470-01554-3.
- Roger S. Pressman: Web Engineering: A Practitioner's
 Approach, 1st Edition, McGraw-Hill Higher Education, 2008.

 《Web工程:实践者的研究方法》,机械工业出版社,2009

Course Outline

- Web工程概述
- Web项目开发过程和方法
- Web应用开发项目
 - 需求工程
 - 建模
 - 架构
 - 设计
 - 开发与部署
 - 测试
 - 运行和维护
- Web项目管理

应用的性能、可用性、安全性 Web工程的发展



Task1–Personal

- 分析对比你喜欢和不喜欢的Web应用。
 - 喜欢
 - Apart from what we've seen in class
 - How did you find it?
 - What function does it has
 - 最不喜欢的
 - From those you need to use
 - Why do you need to use it?
 - What can you do to change the site?
 - 如何好与不好
 - Every coin has two sides
 - In your opinion, how to build a Web application?

