

Web Programming

網際網路程式設計

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Why choosing web 為什麼選網頁

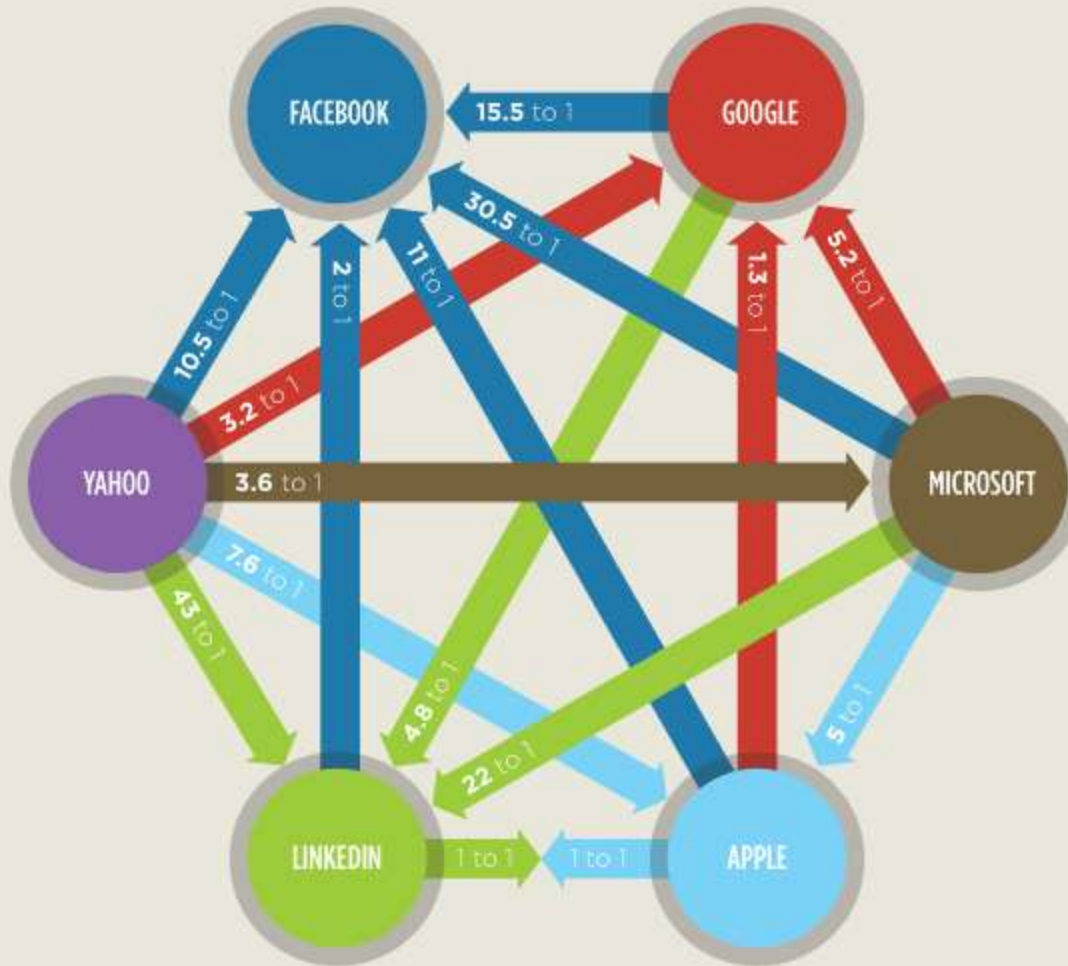
Why choosing web

- Easy to deploy, update and protect
- No installation; have been used to
- Now, the first software for every new platform (e.g. iPad) must be the browser, otherwise who will use?
 - the C compiler is less important

Talent Traffic

topprospect
DATA LABS

Ratio is number of employees moving from **Company A** to **Company B** for every one employee going in the other direction. Arrows point to company winning the talent battle.



Talent flow



Web technology has academic value

- Nucleic Acids Research
 - Impact factor: 8.026
 - 2.586 for IEEE Transactions on Wireless Communications
 - Web Server issue
- Why biologists like web?
 - They are normal people who are lazy to install or even cannot install
 - But analyzing biological data (such as gene chip) requires abundant engineering knowledge and tools (such as statistics, differential equations...)

一般用戶眼中的程式設計師



程式設計師眼中的一般用戶



Web is **not** that trivial
網頁並不是那麼簡單的



<http://blog.tmcnet.com/blog/rich-tehrani/facebook/facebook-opencomputeorg-disrupts-data-center-market.html>
<http://www.inside.com.tw/2011/04/21/facebook-platform-component>



Our goal

這門課的目標

A complete platform

- <http://zoro.ee.ncku.edu.tw/wp2012/demo/>
- Only 352 lines and an afternoon

Technology	#line	Usage	Example
HTML	64	Content	Text
CSS	48	Beauty	Text color
JavaScript	129	Interactivity	Change text colors
Perl	111	Interactivity with other users	

The concept is simple, but involved too various technologies

- An expert usually delivers a web site very quickly, because the actual work is really small in term of quantity
- But a rookie usually does not know where to start to modify an existing web site, because there too many technologies to study and the answers are hard to find
- So, the content of this course is plentiful (syllabus), which includes numerous materials collected in more than ten years by me. These materials are valueless for students who want to enter this area.

Course plan in brief

- Content, beauty, interactivity, and interactivity with other users
- Theories of color, typography, layout...
- The classes of programming and other information are arranged alternately so that students have enough time to digest
- But, when mention the loading...

Heavy 操

The hidden syllabus

Improve your web site according the class every week

每週都得依據所學增強你的網頁



Then, **who** fit this course
那麼，**誰**才適合這門課呢

第一當然是要有熱忱

我不睡觉也要练



0:37:39 / 1:43:14

360p



Students who fit this course

- Passion
 - Too many to learn, impossible to digest in class. You need passion to practice them after class.
- Have some technique and want to apply it on web
 - to meet partners with similar goals/interests could be more useful than this course itself
- Here is an environment, just maximize what you got
 - programming, design, communication, leadership... and, I hope, friendship; the grade is just a bonus

Ingredients of a team



Roles in a team

- Programming and design are labor
 - programming could be worse, since design usually needs some talent but programming can be learnt via diligence
- Good ideas sometimes may pop up randomly, but they usually more rely on observations (various experiences, sensitivity to fashion/market...)
 - do some (market) surveys if you do not want to be complained
- Sale is beyond the scope of this course, but it could be the most important ingredient
 - best-selling products are usually not best products

But how to grade?

- This course requires various talents
 - because good product cannot rely on a single talent
- Programming does **not** dominate
 - if the design of a team is good but the interactivity is bad, the members responsible for the design get high grades
 - but not higher than teams having good design and interactivity
- Interesting course activities

Course activities

- Basic training
 - works are viewable by other students
- Proposal/resume day
 - one minute per student
 - highest voted students become the bosses
- Advanced classes
 - teamwork
- Midterm exhibition
 - current progress, to do, work arrangement...
 - report (comments/grades to members)
- Headhunting/job-hopping
 - match process
- Various classes
 - may ignore my teaching...
- Final expo
 - private or public, up to you
 - report

Sister courses

- We have a successful work the last year
 - <http://zoro.ee.ncku.edu.tw/wp2011/>
 - focused on basic techniques, such as HTML, CSS, JavaScript, layout...
- Social Web Design 社群網站設計
 - <http://zoro.ee.ncku.edu.tw/swd2012/final/>
 - included advanced details, such as database, performance, society, human behavior...
 - collaborate/communicate with partners with different backgrounds
- Both courses do not include web administration. If you are interested in these areas and want to make your works live or to learn more, welcome to join our lab (darby@mail.ncku.edu.tw).

This semester we are stronger

- We got a lot of comments
 - invite business talks
 - make works live
- We collaborate with PIXNET (痞客邦)
 - 獲選「第一名團隊/個人」可獲得痞客邦新台幣一萬元獎學金，並直接取得正式「工作面試」機會；
 - 凡作品通過上架審合，可獲得精美禮品，並在該應用程式上載明設計出處/設計者，以資獎勵。
- Encourage students to participate in contests
 - the final project could be contest-oriented

Another sister

- Machine Learning and Bioinformatics (機器學習與生物資訊學)
 - teach stock prediction this year
 - prediction based on your history (personalized stock wizard)
- Importance (irrepressibility) of interdisciplinary talent
 - the bridge between mystic technologies and important problems is
 - the first step is a good user interface
- <http://ahdb.ee.ncku.edu.tw/>
 - analyze proteins before and after a reaction
 - 萎縮性脊髓側索硬化癥(Amyotrophic Lateral Sclerosis, 簡稱ALS, 俗稱為漸凍人癥)是一種漸進和致命的神經退化疾病, 患者通常在確診3~5年內死亡。研究證實ALS最常見的原因是由于超氧化物歧化酶(SOD1)基因突變, 可中斷細胞內的物質運送到脊髓。這些研究確定了SOD1在破壞神經傳導中的特殊作用, 提供了治療靶點, 且隨著大量抑制劑研究的開展, 最終有可能幫助到漸凍人患者。

Information

- All information are available online
- <http://zoro.ee.ncku.edu.tw/wp/>
- Actually, it's easy to remember



Today's exercise

今天的任務

Join our Facebook club

- Email TA your name and account name, and join our Facebook club
- Reference
 - Tuition Assistance Liu (劉助教)
 - Tuition Assistance Zeng (曾助教)
 - Our Facebook club / 我們的臉書社團