Molecular Biomedical Informatics

分 子 生 醫 資 訊 實 驗 室

Web Programming

網 際 網 路 程 式 設 計

Why web
為什麼選網頁

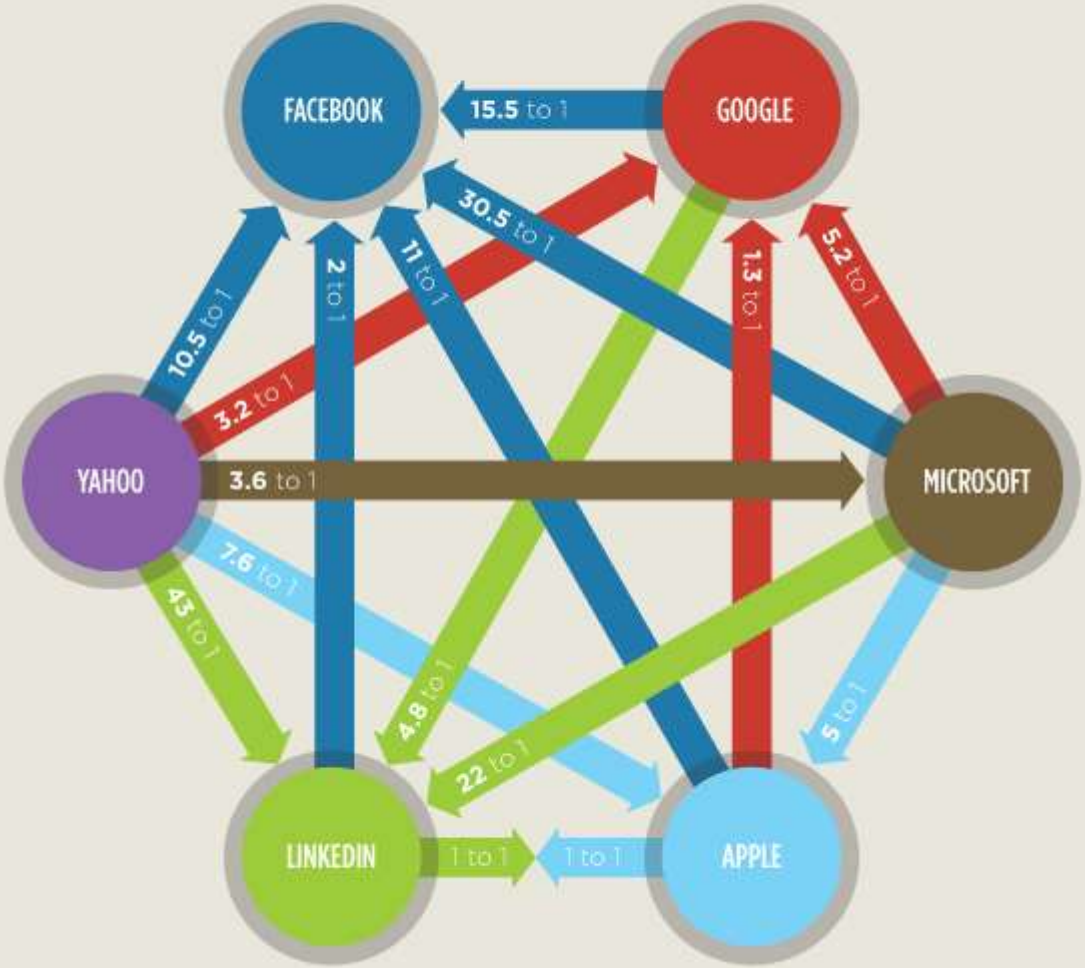
It's the future

- 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
- It's hot; it's (probably) the future
  - Tear-able Cloth
  - Firefox OS - HTML5 開放網路行動作業系統

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.



http://tctechcrunch.files.wordpress.com/2011/06/talent_traffic.gif

Talent flow

AppGratis 慘遭蘋果封殺，CEO 痛寫千言：冤枉！

Web technology has academic value

- Nucleic Acids Research, Web Server issue
- Impact factor: 8.026
  - 2.586 for IEEE Transactions on Wireless Communications
- Our next-generation sequencing (NGS) viewer

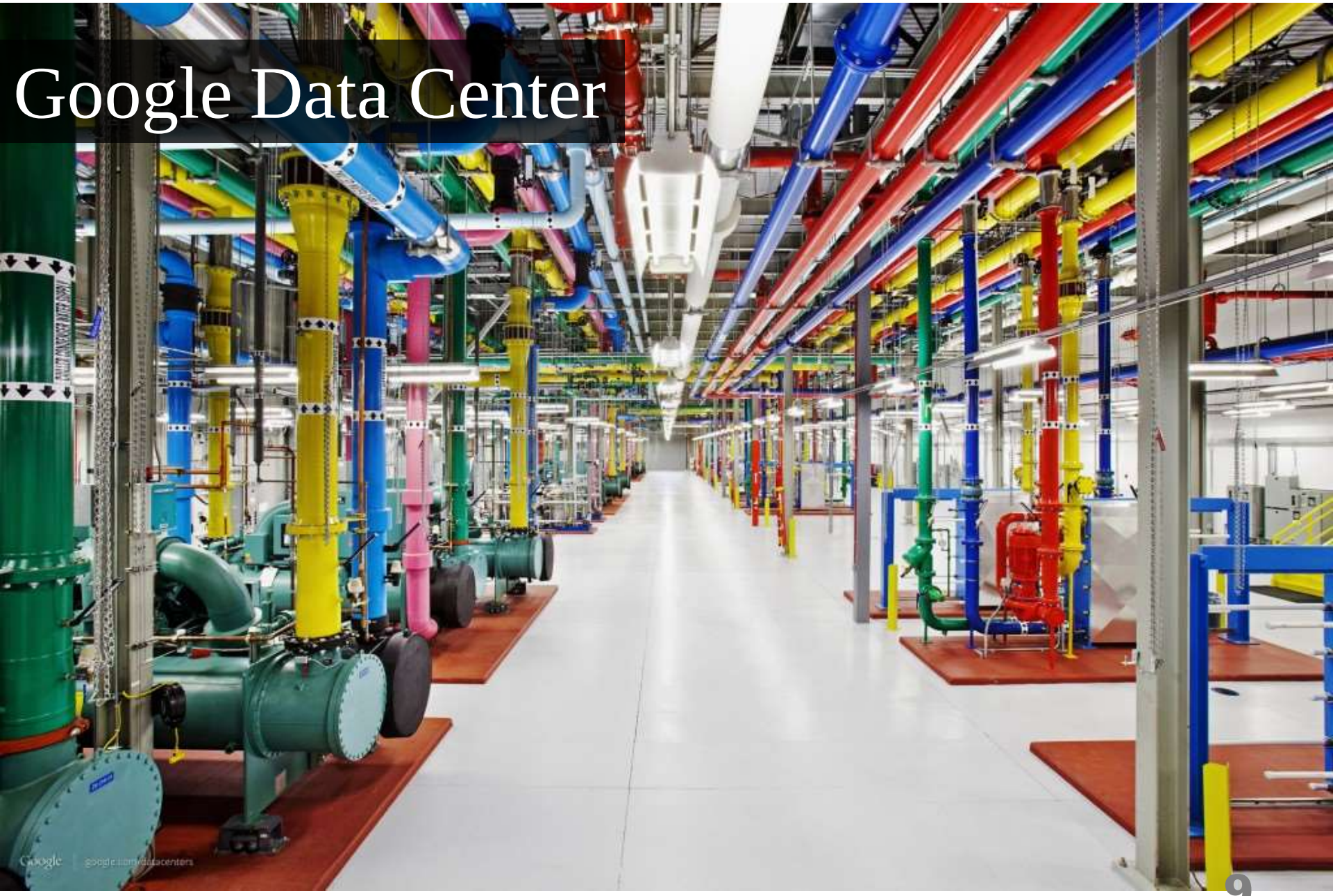
Web is not that trivial
網頁並不是那麼簡單的

Facebook Data Center

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

http://blog.tmcnet.com/blog/rich-tehrani/uploads/facebook-datacenter-electrical-large.jpg

Google Data Center



http://www.inside.com.tw/2012/10/18/google-data-center-in-lenoir

The concept is simple, but

- Web involved too various technologies
- FB 執行長馬克說 HTML5 是個錯誤？ Sencha：錯的是 FB 的技術
- 先別提 HTML5 跟 CSS3 了，你聽過 angularjs brunch compass git github grunt hackpad irc jade jekyll livescript markdownnode.js sass stylus 嗎?

Our goal
這門課的目標

Variety

- An expert usually delivers a web site very quickly, because the actual work is really small in term of quantity
- 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
- 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

- Technology, beauty and interaction with others
  - theories of color, typography, layout…
- The classes of programming and other information are arranged alternately so that students have enough time to digest

- However, if you care about 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

Passion/熱忱

http://www.youtube.com/watch?v=7AspUhJY3ls

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

An environment, rather than a course

http://www.ikea.com/hk/zh/catalog/categories/departments/outdoor/tools/outdoor_rooms_ideas/#/20123_odrs09a_01/

Grading
成績

Via interesting course activities

Course activities

- Basic classes / brain storming
  - both online and offline
  - works are viewable by other students
  - meet and find partners
- Group day
  - show your ideas
- Advanced classes
  - teamwork
- Midterm exhibition (35%)
  - current progress, to do…
  - report (comments…)
- Various classes
  - try to make you not ignore the lectures
- Final exhibition (35%)
  - private or public, up to you
  - report

Sister courses

- We have successful works the last two years

- Web Programming 網際網路程式設計
  - http://zoro.ee.ncku.edu.tw/wp2012/
  - basic techniques, such as HTML, CSS, JavaScript, layout…
- Social Web Design 社群網站設計
  - http://zoro.ee.ncku.edu.tw/swd2013/final/
  - advanced details, such as database, performance, human behavior…
  - collaborate/communicate with interdisciplinary talents
- Machine Learning and Bioinformatics 機器學習與生物資訊學
  - http://zoro.ee.ncku.edu.tw/mlb2012/
  - machine learning techniques and their applications on stock prediction

New in this semester
這個學期的新貨色

LV: 47
HP: 470
〇〇新手村
http://8bit.g0v.tw/

New in this semester

- We have a theme
  - citizens' (students') movement (公民運動)
- The topic is bred rather than voted
- An extra layer for advanced students

g0v

- 零時政府 g0v.tw
- The initial nine months (p7-26)
- The origin (p30-38)
  - 寫程式改造社會
- The style (p56-78)
  - decentralized
  - various collaborations
  - 分身伐樹；粗略的共識；進擊の程式 (p99-101)

g0v is strong, but we can too

MOVEMENT

Upgrade society via web (NCKU)
寫網頁改造社會(成大)

Civic/public issues (depths) arouse sympathy

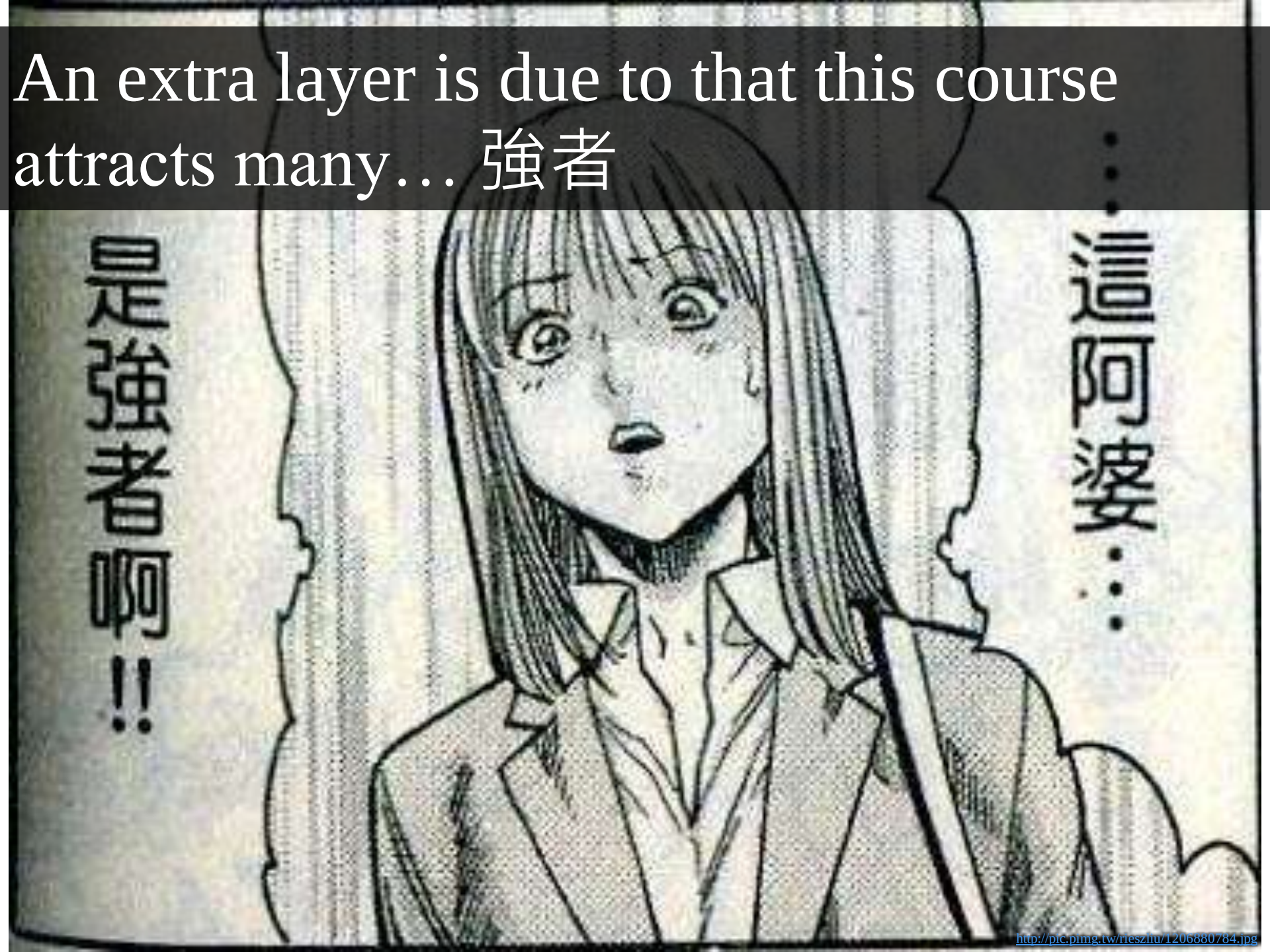
You will get more motivation, more satisfaction and more help

給工程師 – 生命就該浪費在有意義的事上

The topic is bred as g0v

- 一個哲學迷的聊天社群——#philosohala
- Everyone must create a hackpad to start an idea and share it to irc or Facebook
- Everybody discuss these ideas via irc, Facebook and hackpad for a month
  - you can choose IRCCloud (ask me for invitations)
  - join/follow some pads and, even better, start to develop something (content, mockup, programs…)
- Let's see what will happen at the group day

An extra layer is due to that this course attracts many… 強者



http://pic.pimg.tw/rieszhu/1206880784.jpg

A cross-group team

- More “hacker”-like
  - e.g. using github and meeting (online) hackers
  - usually scares other students
- We have a good topic and outside supports
  - 國立成功大學生活體驗營 (unofficial)
  - preliminary results (survey, hackpad and feasibility study)
- Anyone who are willing to learn more are welcome to join us, don’t worry about your skills
  - you still need join a regular team
  - this is an extra work, for both you and me

Information

- Contact
  - darby@mail.ncku.edu.tw
  - Facebook (member only)
- 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 the club and create a pad

- Email TA Kuo your name and Facebook account
- Create a hackpad and share it on facebook to breed you idea
  - you can generate rough and multiple concepts
  - simply any thoughts popped up in your mind
  - of course you can adjust/change the ideas anytime (even after group day)
- Try to attract classmates to your ideas; try to join interesting ideas
- Reference
  - Our Facebook club / 我們的臉書社團
  - hackpad
- Your hackpad will be checked not before 23:59 9/24 (Tue). You may send a report (such as some important modifications) to me in case I did not notice your features.

Any Questions?