



送給生科系同學三個數字

An advice to students for Life Science by three numbers

2018/12/21

生命科學院 生化科技學系

莊榮輝

1

第一年很重要 人生只有一次



The freshman year is very important, since you have only one chance in your lifetime.

**大學其實
沒有四年
大學只有
上下半場**

University is not really composed of four years. It has only first half and second half.

規劃時間

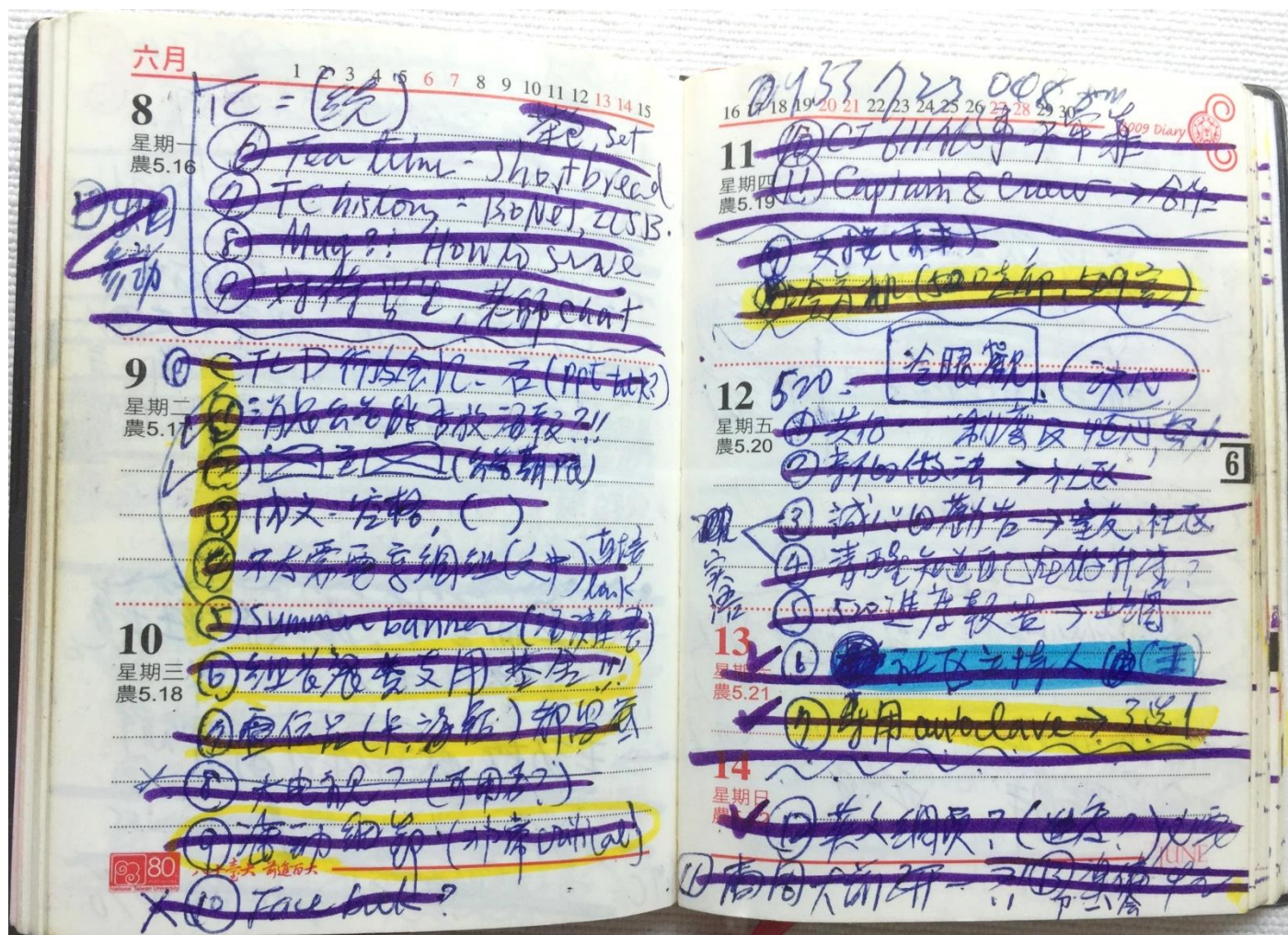
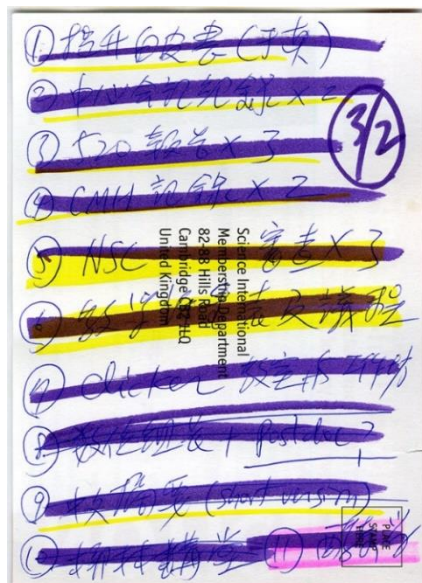
察覺當下

盡情學習

把握人生

*Plan your time, Grasp every moment, Learn as you could, and **Cherish** your life.*

200萬元顧問費



A proposal worthy to pay two million USD: A ToDoList for daily work.

天外有天
人外有人



Only diamond cut diamond; there are always someone better than you.

與最優秀同
學一起學習

群體學習

主動學習

有效學習



Group study

Active study

Effective study

To learn with your brilliant classmates.

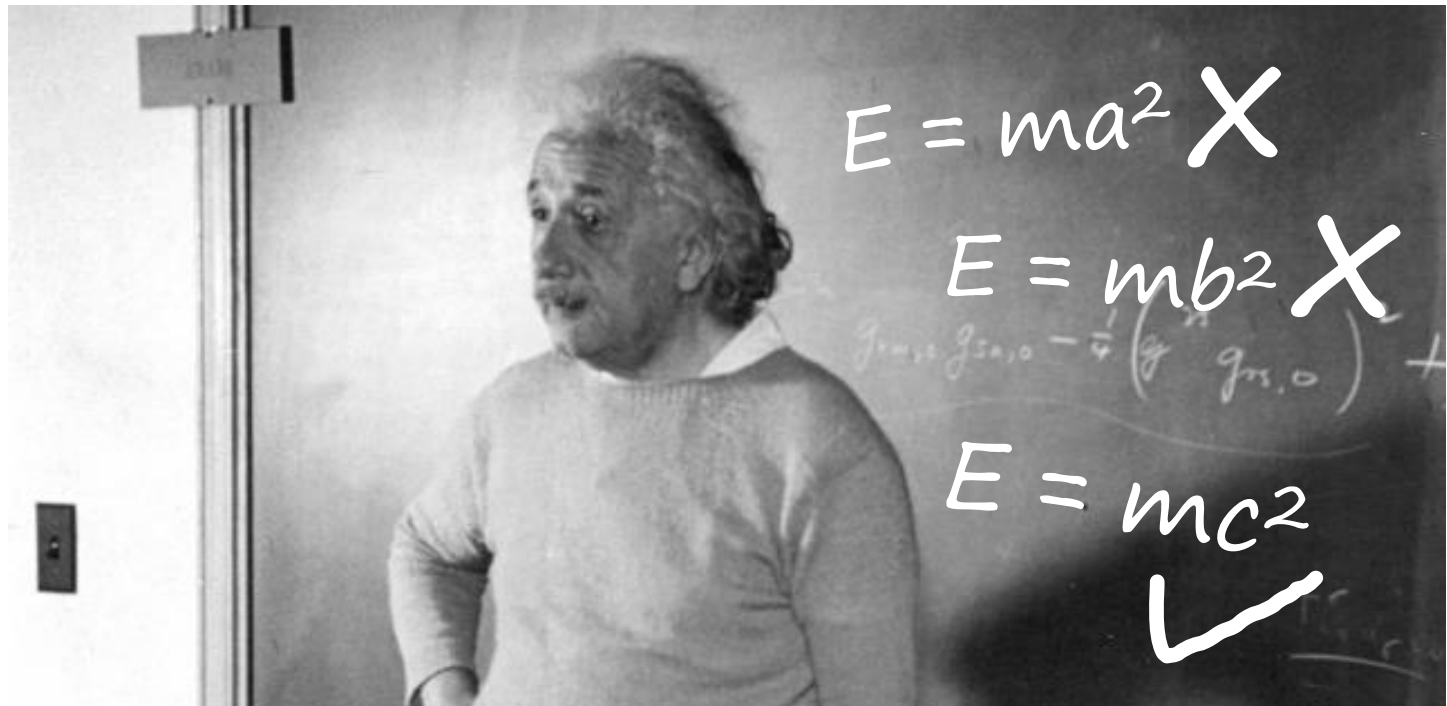
Easy company

BAND OF BROTHERS



... I served in a
company of heroes

愛因斯坦一定 考不上臺大！

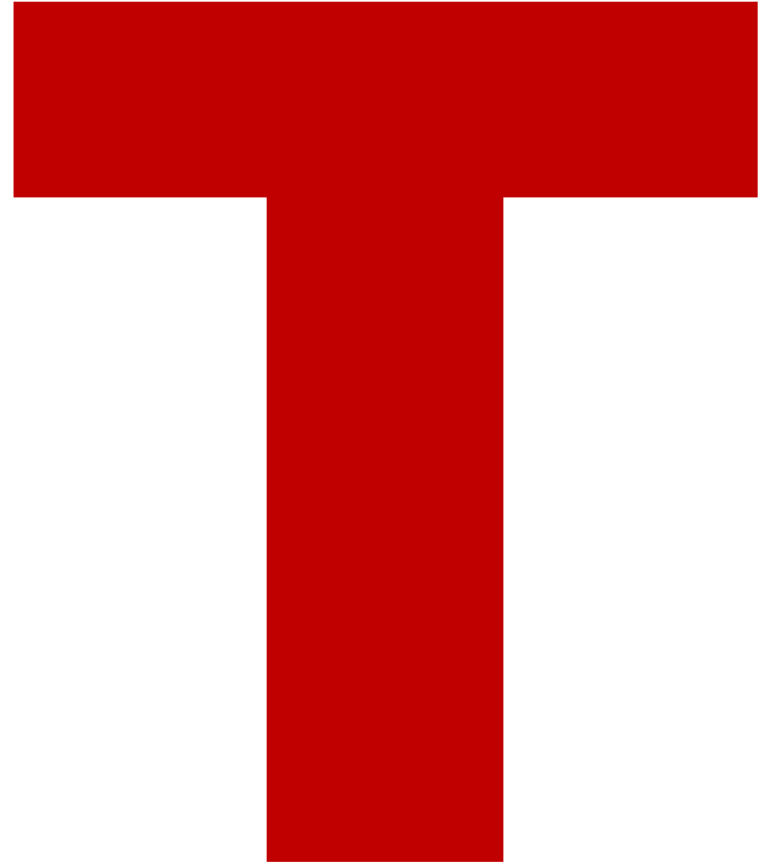


Definitely, Einstein could not get any entrance admission from NTU.

1

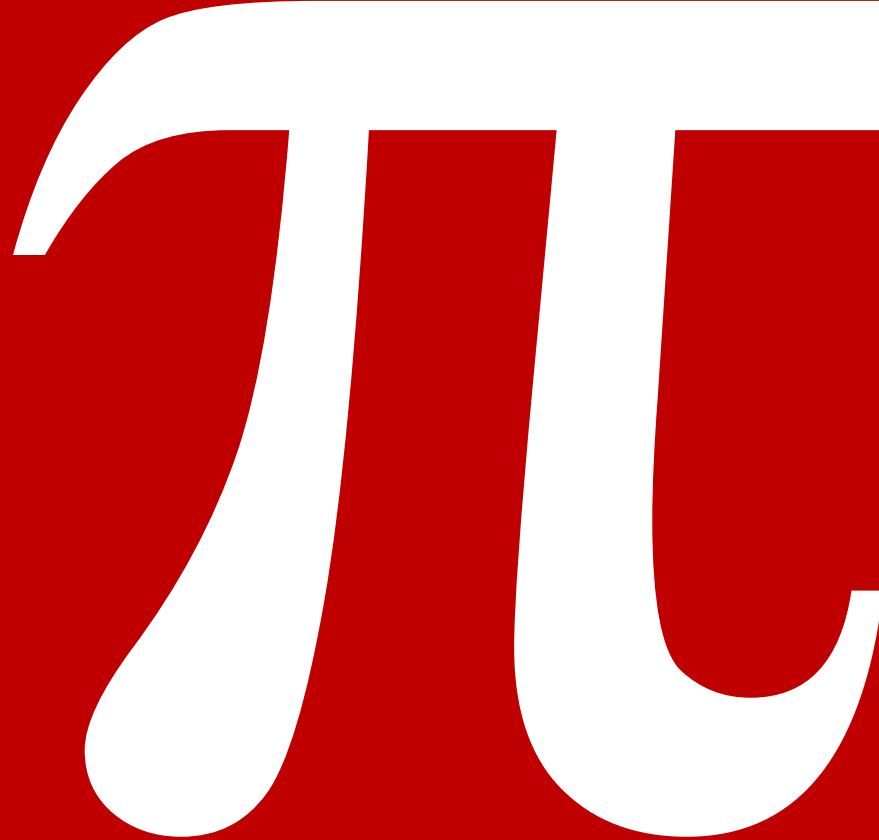


***T** = to learn broadly and profoundly.*



*Only one T is not enough. You have to adopt another **T**, which brings you liberal art education.*

3.141592653589793238462643383279502884197169399375105820974944592307816406286208998628034825

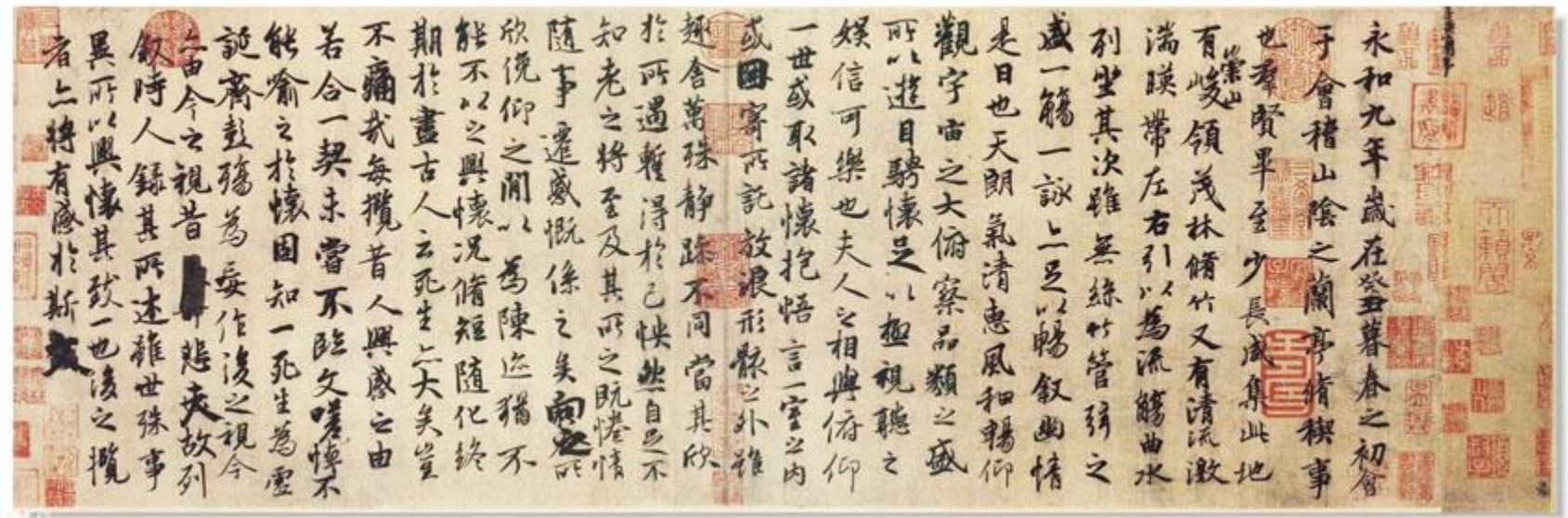


Merge these two T's together. A new number appears... π

無理數

Irrational number: you will never know which numeric digit will come out next...

探索知識以外 種種無盡可能



To explore every possibility beyond knowledge.

通識課程

基本能力

跨域學習

豐富人生

*General education, Core competence, Multidisciplinary courses. **Enrich you life.***

專業 vs 多元

Profession vs. Multidiscipline



一萬元不等值

The value of ten thousand NTD is unequal to everyone.

聽音樂不等值

A piece of music has different significance to individual person.

旅遊也不等值

Travelling creates distinct memories to everyone.

人生更不等值

*All mankind are born **unequal**.*

通識為何重要

Why general education is important to students?

基本核心價值

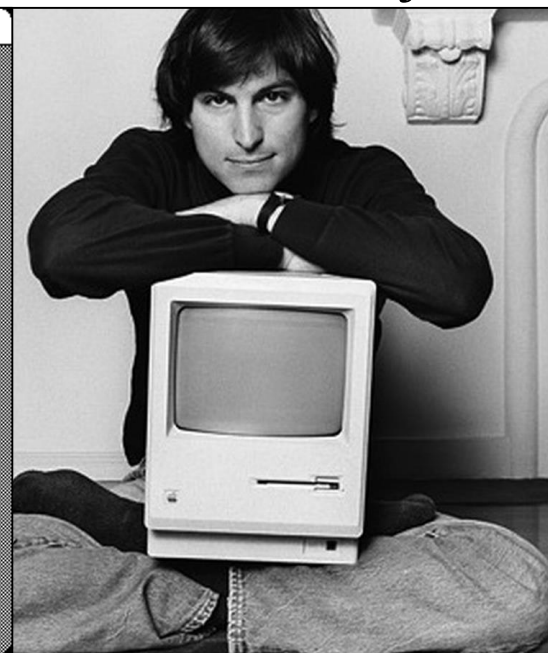
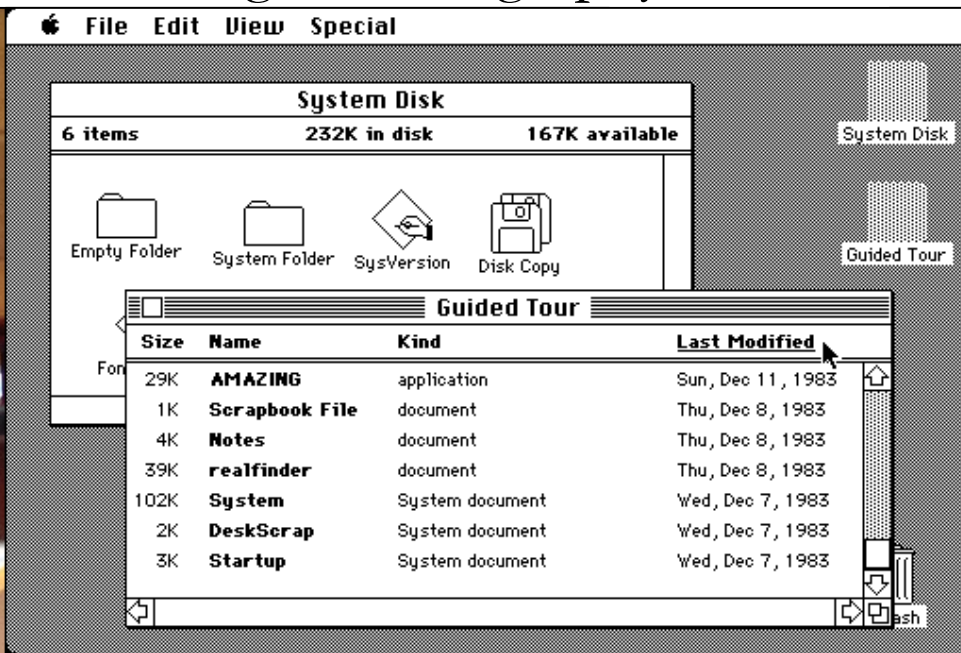
Essential core competence and value

My Life in Harvard College

Calligraphy

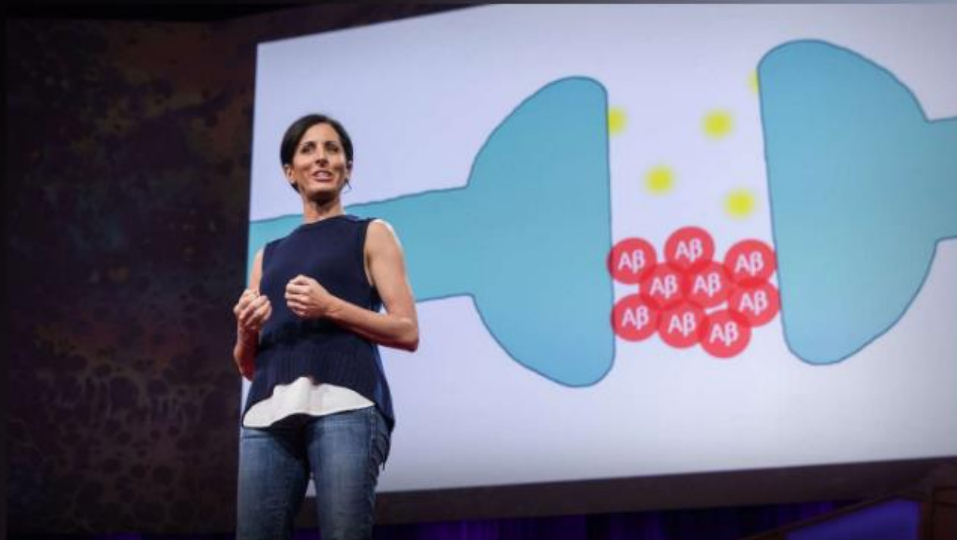
Macintosh

Steve Jobs





Snoopy is a fun of van Gogh!



What you can do to prevent Alzheimer's

Lisa Genova / Neuroscientist, novelist



7 talks for neat freaks

Playlist: Tidying can be tedious, but these talks understand the benefits and beauty of order (and maybe, a little disorder too)



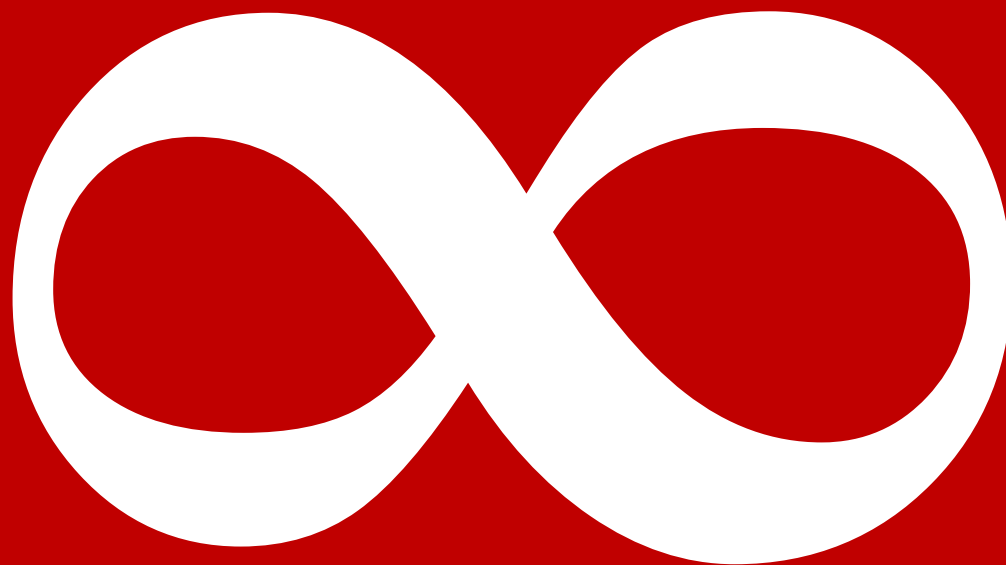
Tomorrow: Watch the best of TED2017 in select cinemas!

Don't miss this program made just for cinemas, featuring the highlights from this week's TED Conference plus an interview with Elon Musk. Search showtimes.

Ideas worth spreading

TED

Create your ideas and share with others.



The third number is “infinity”.

自我演化

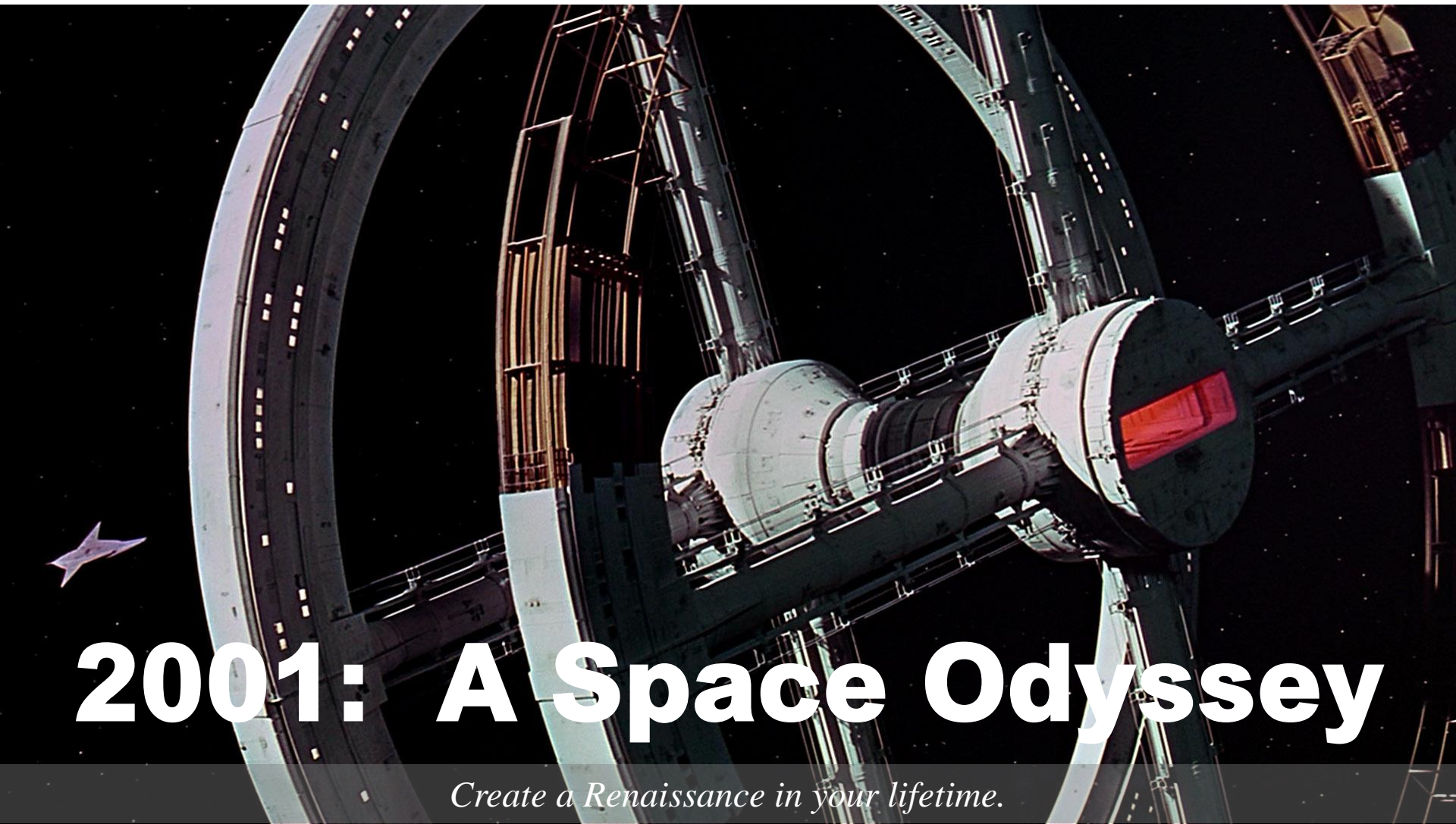
高三轉骨

成為大一

年年蛻變

Evolve yourself, Transform from HS student, Become a freshman. Improve yourself.

人生的文藝復興



2001: A Space Odyssey

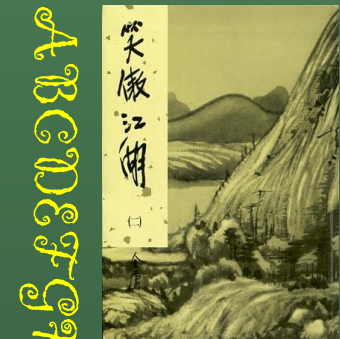
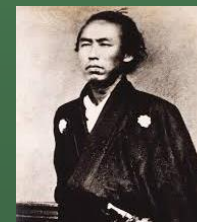
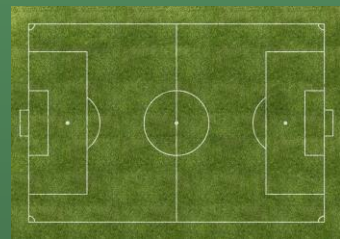
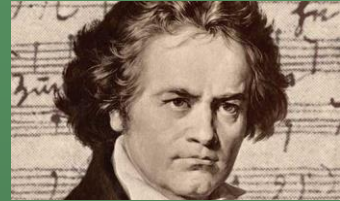
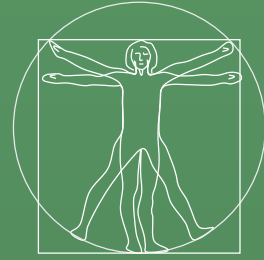
Create a Renaissance in your lifetime.

**啟蒙自我價值
找到生命舞台
Life is good**

*Enlighten self value, Find yourself a stage. **Dedicate to a good life.***

大學四年裡做過這些事情？

- 1 培養實在的科學精神 (找尋一種科學興趣)
- 2 至少喜歡並且熟悉一位西方畫家及其作品
- 3 熟悉西洋古典音樂 (至少精於一位作曲家)
- 4 嘗試去深入中國文物的意境 (故宮博物院)
- 5 培養一種終生喜好的運動 (並成為狂熱者)
- 6 讀一部世界通史 (威爾杜蘭的世界文明史)
- 7 遍讀金庸小說 (至少要讀過幾部代表作品)
- 8 把一兩種外國語文徹底學好 (通常是英語)
- 9 遇到知心而可靠的朋友 (多寡、種別不拘)
- 10 深入認識並學習一個具有特色的先進國家
- 11 參與或主導一件校內外轟轟烈烈的大活動
- 12 決定自己未來的志業 (並且做得真正開心)



ABCDEFGHIJKLMNOPQRSTUVWXYZ

A ToDoList in you college life

- 1 Get familiar with the art of scientific investigation**
- 2 Learn to master the Western classical music**
- 3 Learn to know and love a Western painter**
- 4 Explore the art of Chinese civilization (e.g. bronze age)**
- 5 Crazy about a sport in your lifetime (e.g. soccer)**
- 6 Read a world history (e.g. The Story of Civilization)**
- 7 Read some of the swordman novels by Jin-Yong (金庸)**
- 8 Learn one or more foreign languages profoundly**
- 9 Find yourself life-long friends (animal included)**
- 10 Deeply explore a (developed) country you like mostly**
- 11 Joint a big activity or movement in the campus**
- 12 Make a direction on your future (and you are happy)**

培養格局
不斷演化
無限可能
美麗人生

Expand your time and space, Evolve persistently, Make imagination possible. Life is good.

1 π ∞

All the three numbers

1 把握人生

π 豐富人生

∞ 美麗人生

Cherish your life → Enrich your life → Life is good.

10 x 10

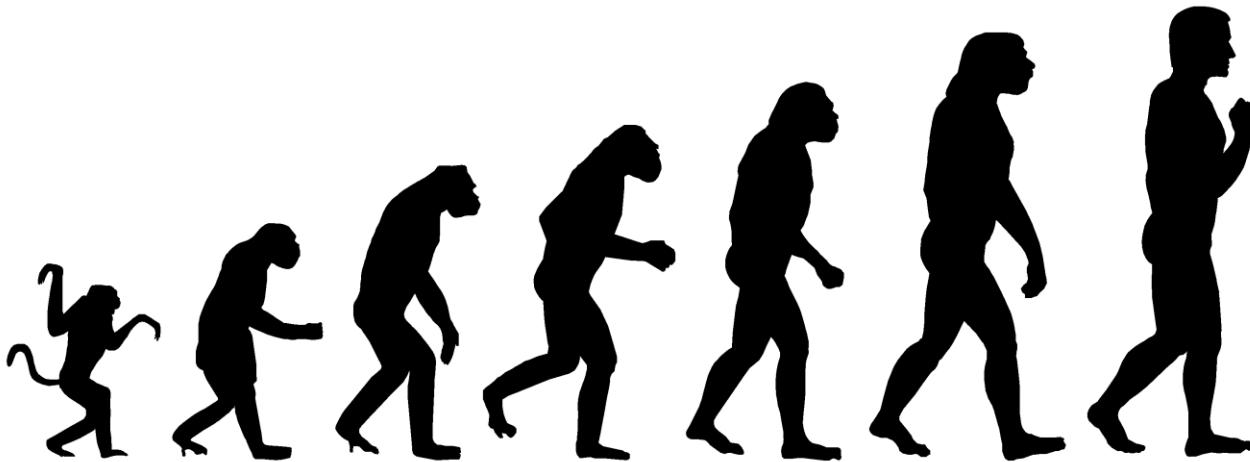
x -1

-100

The deadly power of a negative factor.

$$1.1 \times 1.1 \times 1.1 \dots = ?$$

1.21
1.331
1.464
1.610
1.771



0.81
0.729
0.656
0.590
0.531

$$0.9 \times 0.9 \times 0.9 \dots = ?$$

Tiny improvements will accumulate to produce big difference. Vise versa.

人才是邁向頂尖的唯一關鍵

Human resource is critical to achieve the university excellence



以教育彩繪世界的未來

Education brings the world a colorful future

- (1) 高中與大學時期的學習階段很關鍵嗎？
- (2) 優秀學生之學習方式都具有什麼特點？
- (3) 若學生時代不認真學習，我有何損失？
- (4) 專業都學不好了？我為何還要修通識？
- (5) 如何知道自己的人生大方向是否正確？
- (6) 我很努力但成績仍不佳，該如何自處？
- (7) 大學四年中除學習以外的最重要大事？
- (8) 人生最寶貴的特質是什麼？如何達致？