# Creativity & Computation

## CC Lecture

### Fall 2018

SVEN TRAVIS

Today's Artist/Designer : Makoto Azuma
- └ Botanical Space Flight
- └ Iced flowers

§ About CC
  └ Started in 1977.

§ Sven's RA-ship
  └ Mighty Spicy Collective

## READING ASSIGNMENT

Books : Oliver Sacks' : The Mind's Eye ☑
Vikram Chandra : Geek Sublime ☑
Nick Bostrom : Superintelligence ☑
Charles Petzold : Code ☑
Naomi Oreskes & Conway : Collapse of Western Civilization ☑
Cixin Liu : Three Body Problem ☑

Amazon has purchased
& would make it a TV series
($ 1B)

Other Imp. Sources : The New York Times & The Economist

§ CC Lab Topics
* ↳ Arduino
  ↳ Javascript (1-2 weeks)
* ↳ Unity (last 6 weeks)
  ↳ OpenFrameworks (4-5 weeks)

Reading Books
↳ Will be shared by Sven

§ LECTURE ASSIGNMENT

☑ ↳ 1st: Watch movie: CitizenFour
        ↳ by Laura Poitras
          (Graduate: TNS: School of Media St.)

☑ ↳ 2nd: Read: Collapse of Western Civilization
          The Three Body Problem

☑ ↳ 3rd: Write: 1500 word paper on "Technology & Me"
          ↳ Reference the book & the film
          ↳ Due Sep 15th, 11:59 pm
          ↳ This would be re-written at the end
            of the semester

Today's 2nd Artist/Designer: Zach Lieberman
  ↳ Founder of OpenFrameworks

✳ General Info
  ↳ lockers to be assigned this week.



**LOCKERS!**
will be assigned this week
Jasmine Graham
grahamj@newschool.edu

  → Jasmine ፥ DT Program Admin
     AMT Office
     2W 13th St. ፥ 4th floor

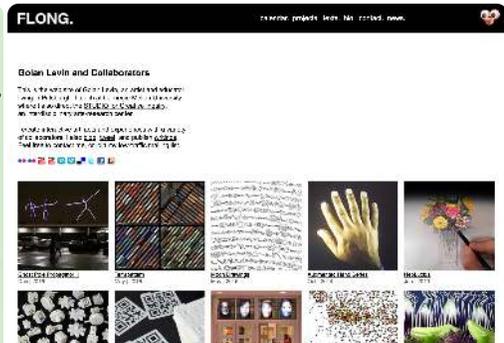  ↳ CC Lab Tutoring ፥ Starts this week (D12)

✳ Golan Levin ፥ flong.com
  ↳ Studied at MIT, Parsons, CMU.
  ↳ Creator of lists — likes lists
  ↳ His work & a list of his other collab. on his website.
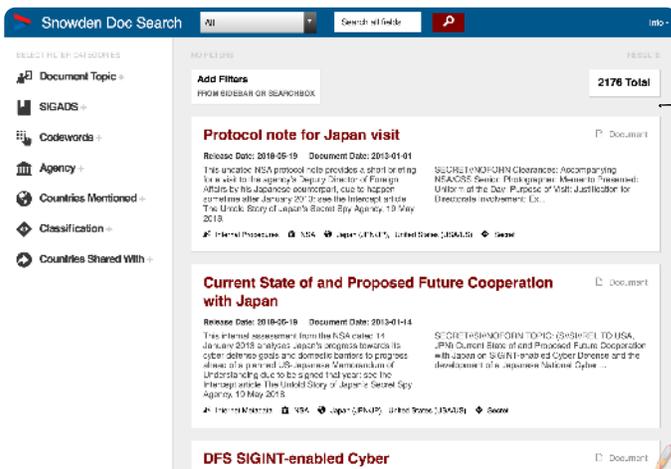  ↳ Untitled Digital Art (Augmented Hand Scenes)



✳ Visit ፥ Digital Media Lab (Brooklyn) — CMU's work

§ Discussion on CitizenFour

✷ Work with VPN : eg. Express VPN : Buy one

§ VPN
↳ Works through ML
  ↳ Switch the server automatically when one is blocked.

↳ greatfirewallofchina.org
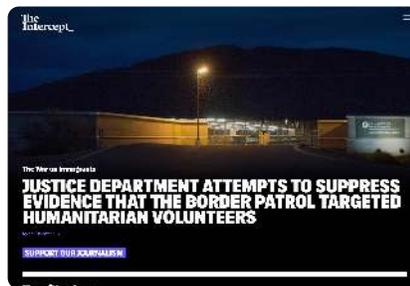  ↳ whether a website is blocked in
    china.



↳ Docs of Snowden

✷ Online Journalism
↓
The Intercept

✷ Read Guardian - Trustworthy

✷ Laura : Snowden contacted her.

# § Network & Surveillance

- ✳ Dwight Eisenburg
  - ↳ Supreme commander of Allied forces in WW2.
  - ↳ Built USA interstate System - roads
    - ↳ In today's world - China is bringing that connection.

- ✳ ATT Bell Labs
  - ↳ Network center in Jersey — primary research center in the early days. — Now, Nokia Bell Labs.

- ✳ Cell phone connections are the basis for tracking.

- ✳ Internet was intented in DARPA — military
  - ↳ In an academic setting — Berkely

- ✳ Messages sent through the internet goes in the form of packets
  - ↳ these packets go through different routes & collect at the destination.

☒ Haruki Murakami

↳ Japanese writer

↳ Nominated for Nobel : Rejected it

↳ Most recent : 1Q84, Colorless Tsukuru Tasaki

↳ Interesting Film : Norwegian Wood.

↳ Most famous : The wind-up bird Chronicle

: Kafka on the shore.

↳ A game made on Murukami's work : Memoranda
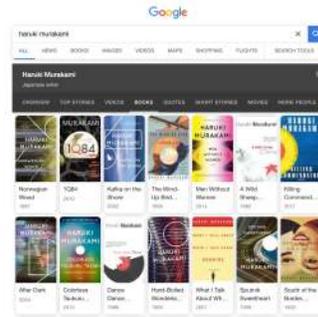
§ DT Motion Jam — On Motion Capture Lab
  ↳ New dates : Oct 12-14, 2018

§ openFrameworks weekend workshop
  ↳ Sign-up — classes on Sat
              — 1 credit course

§ Talk to your Faculty Advisor : David Caroll

§ Graduate Student Travel Fund
  ↳ Support travel expense related to research — conference etc.
  ↳ Sign-up form will be sent
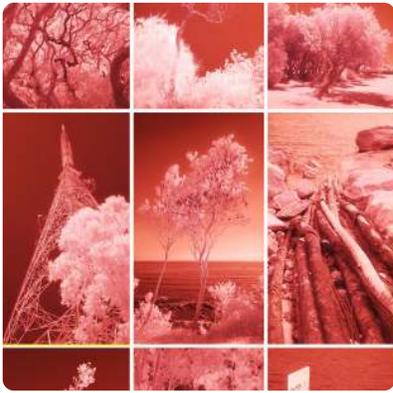  ↳ Max grant : $10001-



✱ Evan Roth
  ↳ DT graduate
  ○ Winner of National Design Award
    ↳ Cooper Hewitt



Check it out

→ Doing an internet trail
& taking shots in IR
at the nodes
↳ eg. where cable connections
join

——→>——

⁂ About Code

○ Compiled languages ⎤ Once you run it, its compiled. You can't
    ↳ C++, Java ⎦ see the code. Like, making an app

○ Interpreted languages — Scripting languages
    → HTML, Python, Javascript, ⎤ You run the code directly.
    Clojure ⎦ You don't need to compile.

    → As machines are getting powerful, it's easier to
    run the code directly, no compilation needed.
    → Platform independent

⁂ Charles Petzold
    ↳ Worked in Microsoft mostly.
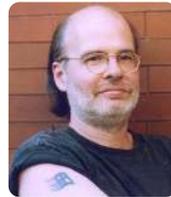


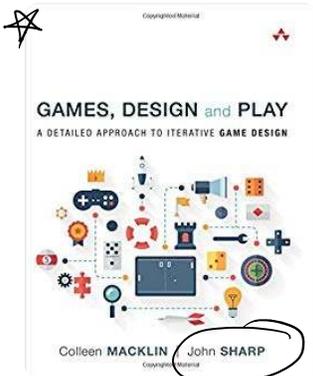⁂ Finish reading : CODE. ( Next week )
    ↳ Charles Petzold

* John Paul Gaude
  ↳ Fashion designer

—————×—————
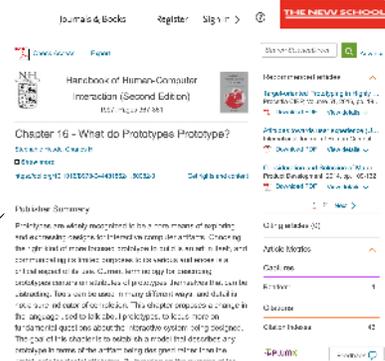
* Design process
  ↳ Adaptive vs (Predictive Process)
       → Waterfall process



Prototype

Thinking about their relevance.

Good read →

Book by
Houde
&
Hill

↳ Talks of diff^t types of
  (Prototypes)
     ○ look & feel
     ○ Implement^n

Paper ←
Physical →
Playable →

* The idea of using a prototype is to get clarity

* Idea of prototypes
  ↳ Share your failures. It's a prototype. Don't try to make it a finished product.
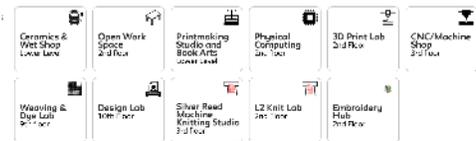
01 Oct. 2018

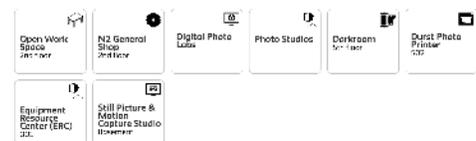§ Resources at TNS

⭐ ERC : Equipment Resource Center
↳ 66th & 5th : Basement
↳ VR equipment, photography equipment
↳ Digital C printer — best quality print



⭐ Graphics Lab —— best printing place
↳ 2W 13th — 10th floor
↳ Sticker printers, vinal cutters

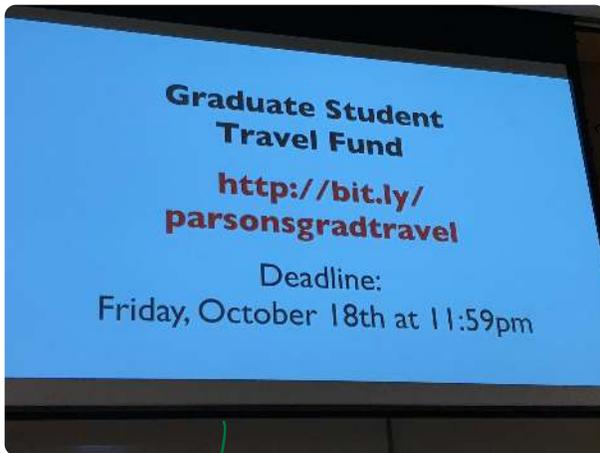↳ resources.parsons.edu

⭐ Metal shop, wood shop & laser lab
↳ 25 E13

⭐ Do 3 shop/equipment trainings by semester end.

§ Visiting professor : Fan Xiang : Machine Learning class
↳ Course : Radical Dataviz — Today at 3pm, D1204 B

§ Graduate Student Travel fund.



→ Only offering for the ENTIRE year.

→ Conferences, research travel, paper presentation, anything you want to attend

→ Grant up to $1000 (avg $500 - 750)

→ Does not cover class related submissions
  → Berlin - Paris, India, etc.

§ Tech & Performance
  → Collab by Ethan Silverman
  → Done with the drama school
  → Register along with spring Semester class
  → Week long — Jan 2018.

§ Motion Jam : Cancelled.

§ OpenFrameworks Workshop
↳ Chris Lee & Andrew Carters
↳ 3 hr session each saturday for 4 weeks
↳ Sign up needed.
↳ Time : Sat 1-4 pm #

✗ NY Tech Meetups
↳ Great events & projects
↳ Internship opportunities



↪ NYtech . org

Upcoming Events:

NY Tech Alliance Presents: Techstars NYC Pitch Night
October 04 @ 06:15 PM
SVA Theatre

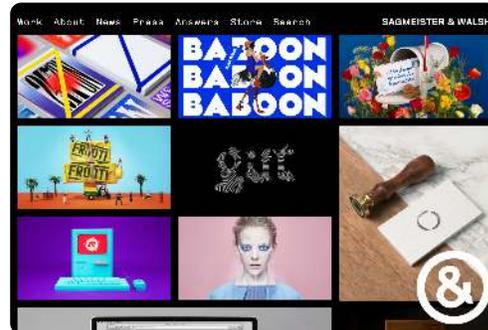October 2018 NY Tech Meetup
October 08 @ 06:30 PM
AppNexus Razzle Dazzle Room

———∞———

✗ Stefan Sagmeister & Walsh
↳ lives in NYC
↳ Graphic Designer
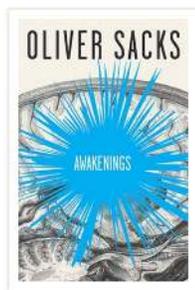↳ Good at Typography
↳ Physical Installation



↳ sagmeisterwalsh . com

✳ Jessica Walsh
 ↳ Graphic Designer from RISD
 ↳ LikeKnowsLike.com



✳ Oliver Sacks
 ↳ Neurologist, Doctor, Writer
      Scientific
 ↳ Most famous: An Anthropologist on Mars, The Awakenings
 ↳ Work is a series of essays
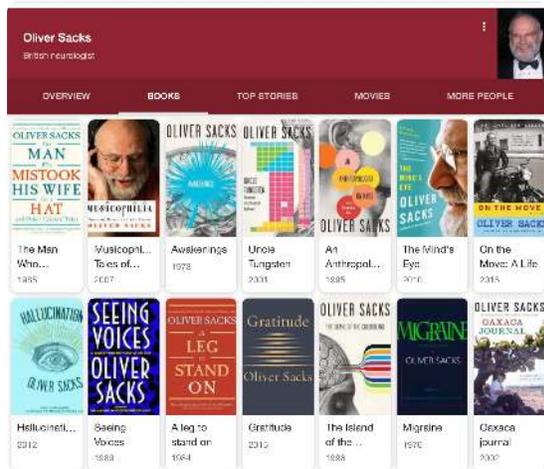


**Awakenings**

**Publication date:** 1973, revised edition 1990

The classic account of survivors of the encephalitic lethargica and their return to the world after decades of "sleep." This book was the inspiration for the 1990 film starring Robert De Niro and Robin Williams as Dr. Sacks.

**Buy this book:**

Amazon | Barnes & Noble | Powells

✳ Read: The Mind's Eye: Oliver Sacks
 ↳ How we see things in our brain.

# Howard Gardner
- → Theory of multiple intelligences
- → Works on 8 primary forms of intelligences
- → Works on Project Zero at Harvard
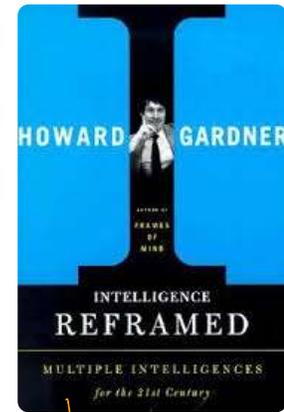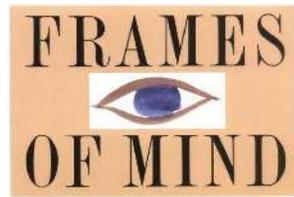








# Symbiotica Biological Arts
- → Silent Barrage.
  - ↳ Making artificial brain for the robot
    - ↳ In-vitro culture & online connectivity
- → University of Western Australia
- ↳ Founded by Ionat Zurr
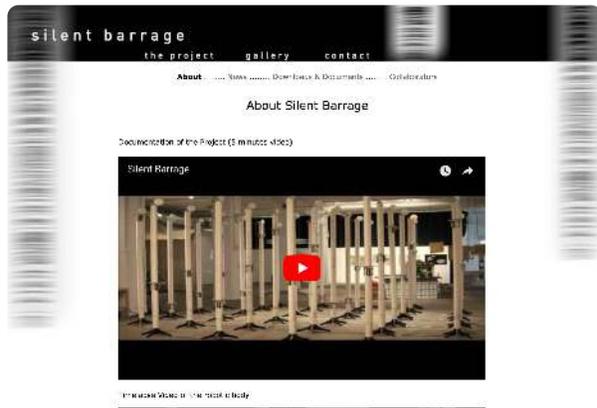


→ Combining Arts & Science & actually making things
  ↳ Biodesign & Bioart

✳ Local version of Symbiotica
  ↳ Genspace.



↳ Experiments with Genetics.

✳ Biofabricate Conference
  ↳ New Lab
  ↳ @ Brooklyn Navy Yard
  ↳ Dec 13
  ↳ Works on Biotech & Arts

✳ Biodesign Challenge
  ↳ Done with Genspace.
  ↳ PPT at MoMA
  ↳ 25 universities across the world
  ↳ Collab Studio, Spring 2019.



The Biodesign Challenge offers art and design students the opportunity to envision future applications of biotechnology

08 Oct. 2018

§ Spring Registration : Nov 1st week
    ↳ Info/review : Oct 22nd.

✷ DT Study Tutoring : everyday on D12.

✷ Visit Learning Center to take tutorials on English & Code.
    ↳ 66 W - 12th (6th floor)

° If you are late at returning stuff to Equipment Resource
  Center (ERC), you are fined (non refundable).

——— x ———

✷ Talking Heads → David Byrne
  ↳ A band (1975-1990s)
  ↳ Big Suit video
              ↳ Bicycle Diaries
                      (Book)
    ↳ A Musician
      ↳ Installation : Playing the Building

✗ Brian Eno
    ↳ Producer for Roxy Music
    ↳ Worked with Talking Heads
        ↳ David Bowie, U2
    ° Works on VR : My Life in the
                        Bush of Ghosts



✗ Laurie Anderson
    ↳ Musician
    ↳ Technology to create music in
        diff⁺ ways
    ↳ Connecting tape to violin chords
        & playing music through it.



✗ Supercollider
    ↳ Open source platform for
        creating music through code
    ↳ Sonic Pi : similar platform

**✶ Next Assignment : Internship**
↳ Create 3 lists of 10
  ↳ ① : 10 projects you like
  ↳ ② : Who made them ?
      ↳ the projects
  ↳ ③ : How to contact them ?

↳ Six degrees of separation : get in touch with people where you want to work.

↳ Look at non-profits, NGOs, Arts organiz$^{ns}$, individual artists and designers.

↳ Find 10 projects that you like —
    ↳ Topics : blockchain, climate change, disability

↳ Due : Oct 15th → ☑ : cclecture2018@gmail.com


STEVE JOBS
& THE NeXT BIG THING
RANDALL E. STROSS

→ ✶ Book written after Steve Jobs was fired from Apple.

○ In class, you would be asked to give a lot of precedents.
  ↳ Consider the works of Steve Jobs & Bill gates for reference.



| Samsung | NY Times | Arc'Teryx |
| Microsoft | Apple | Human Rights |
| IDEO | Accenture | Watch |
| Frog Design | Fjord | Time Warner |
| R/GA | Potion | Gates Foundation |
| IBM Watson | Verizon | GE |
| Ralph Lauren | Huge | Hasbro |
| BMW | Design Continuum | HBO |
| Smart Design | Oracle | Local Projects |
| SAP | UN | Pixar (and Disney) |
| World Bank | Unicef | Witness |
| Pentagram | Reuters | DKNY |
| Electronic Arts | Ikea | ESPN |
| Viacom | Sonos | Hearst |

A fashion style inspired by Charles Babbage's difference engine.

A book discussing Babbage's Difference Engine.
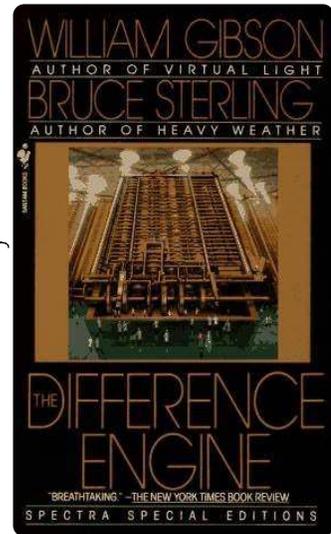


⚹ Ada Lovelace
  ↳ First known computer programmer.

⚹ Weaving machines were the start of computers.

⚹ Herman Hollerith's key punching machine
  ↳ Set up a company now called IBM.

⚹ Marnix De Nijs
  ↳ Projects: Speaker detecting people through sonar
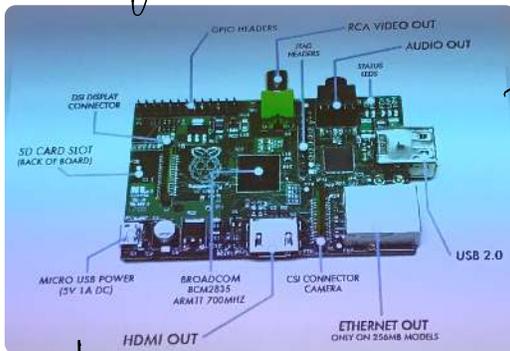  ↳ RMR

✻ MS2 Faculty Sessions → Starting next week

✻ Short courses (2 week long)
  ↳ openFrameworks, Maya 3D & After Effects
  ↳ Starting this Saturday

**Saturday**
**10/13 & 10/20**
**12pm-3pm**
**3pm-6pm**
**2 weeks**

✻ Upload a picture of your ID card with stickers
  ↳ Google Form

✻ Raspberry Pi

→ Std. platform for doing IoT projects
  ↳ would be covered in class later this sem.
    ↳ workshop
  ↳ Next sem : IoT electives

↳ Runs on Linux
  ↳ $60~70

✳ Edward Burtynsky
  ↳ Photographer
  ↳ Comes from a mine area



→ A book & a film on his mining shots



→ Another movie on the shots of water.

ANTHROPOCENE

One more movie on
Anthropocene — how humans
have impacted the environment
permanently.

§ **Javascript** ⟶ most widely used scripting language

↳ Primary language around the world — UX, UI

↳ Used for real time data processing

↳ Created by Brendan Eich in 1995 (Netscape)

⤷ Mozilla is what is left of Netscape

↳ Javascript got its name from Java. They have no relation to each other.

✗ Take a Javascript elective next semester

↳ v. Imp.

§ **openFrameworks**

✗ Christine Sugrue

↳ Developed ('contributed') & maintained openFrameworks

↳ Parsons Paris Faculty.



✗ Tempt : another openFrameworks project
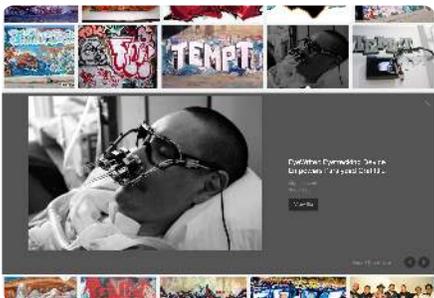


⟶ Making a graffiti artist paint again

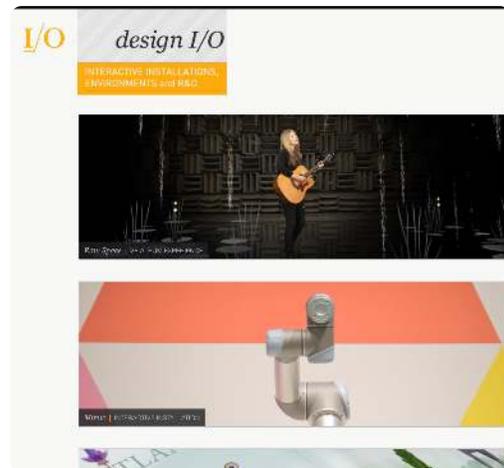↳ The Eyewriter

○ Other platforms similar to openFrameworks

CINDER :



○ openFrameworks & Unity are diff$^t$ tools with diff$^t$ powers.

✳ Other projects.

� Halloween Parade
  ↳ Oct 31, 7pm

○ Next week : John Sharp's lecture : Creativity & Technology
○ Sven : exiting as program director this semester — John Sharp
     takes up as director MFADT (from next semester).

✦ Spring Semester Course Registration
  ↳ begins Nov. 1st week

You need 2 academic &
2 collabs at the end
of 2 yrs. So, take 1
next sem.

→ Apply for waitlists

1 major studio= 6 credits
✗ 1 academic= 3 credits
1-2 studio electives= 3-6 credits
(suggested) 1 collab= 3 credits

Total: 15-18 credits

→ Suggested course distribution
for registration

Take one.
(If not from DT, take
from other departments)
  ↳ Workload would be higher — internships, MS2 (thesis focus)

○ You can do part-time in the final (4th) semester.
     ↳ Not recommended

# § SPRING CLASSES (2019)

○ Registration: Top 4 choices (as last time)

○ MS 2 faculties:

**MS2:**

Melanie Crean (FT)
Mattie Bryce
Ayo Okunseinde
John Sharp (FT)
Amelia Winger-Bearskin
David Carroll (FT)
Mohini Dutta

→ FT: full time

⇒ 7 studios next semester
   ⇒ less no. of students per class

↳ Discuss with 2nd years to know about the faculty

○ Electives

**Studio electives:**

Web Advanced: Javascript
Web Advanced: Javascript APIs
Creative Coding: openFrameworks
Creative Coding: Unity
Physical Computing
Internet of Things

→ • Take Javascript for sure

**Studio electives (continued):**

Designing for Usability
Narrative and Dynamic Systems
Data Visualization
Data Viz and Info Aesthetics
Storytelling with Data
Machine Learning

→ Game related

→ Data Viz classes

→ Kind of Data Viz related

**Studio electives** (continued):

Sound Design
Motion Graphics: Introduction (2 sections)
Motion Graphics: Adv Techniques
Printmaking Grad Studio
Computational Form → Popular + Intense
Ed Tech and Design Thinking → VR related

**Academics:** → Specific to MFADT

History of Interaction Design
Design and Education → If you are interested in teaching & educⁿ
A Holistic User Experience
New Media Art History
Dark Data
Urban Interaction Design

**Collabs:**

Collab: Augmented Reality
Collab: Algorave → live coding & performance
Collab: Design for Safaris → Harpreet
Collab: Tactile Tech for Wearables → Chen + MFA Textile Design
Collab: Motion Capture Studio → John
Collab: Tech and Performance (Jan) → Starts a week before Spring class

**Collabs** (continued):

Collab: Blockchain → # May be a current elective : Check
Collab: Projection Mapping (MadMapper)
Collab: Game Design in Copenhagen
Collab: Beijing and the Wild Wall → Max 8 people
Collab: VR in India (Ahmedabad)
Collab: BioDesign Challenge → Running since 3 yrs + SDM Students
→ Bio Design - Bio art

�️ Take at least 1 academic & 1 collab for Spring semester

✷ Dunne & Raby
  ↳ Great faculties for Speculative Design
  ↳ Offer a collab kind of course next sem.

✷ CURRENTS ≠ COLLABS

✷ INDEPENDENT STUDY
  ↳ Non scheduled course with a full-time faculty member
  ↳ With a faculty, on a topic that isn't being offered
  ↳ With full-time faculty only

✷ If we take more than 1 collab, it's considered a studio elective
      ↳ But, take permission from Quizayra

✷ If we take more than 2 academic electives, it's considered a normal elective.

✷ A Seminar Class is a Studio Class — NOT an Academic / Collab

✷ Check details on TNS website
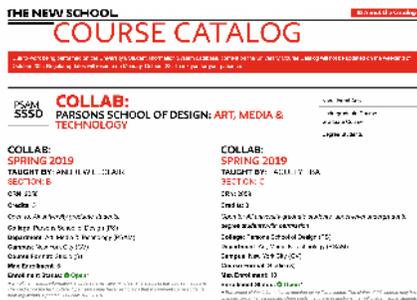
§ Xu Bing
  ↳ Macarthur Genius Award
  ↳ Artist, Graphic Designer
  ↳ Presently in Beijing
  ↳ Calligrapher



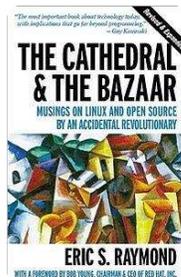MacArthur Foundation
MacArthur Fellows
25 Extraordinarily

[ Lauren Redness &
Ben Catcher have ]
won it

§ Linux
  ↳ Rasbian : powers Rasberry Pie
  ↳ Most of IBM Watson runs on Linux

§ Linus Torvalds
  ↳ Wrote Linux

THE CATHEDRAL & THE BAZAAR
MUSINGS ON LINUX AND OPEN SOURCE
BY AN ACCIDENTAL REVOLUTIONARY
ERIC S. RAYMOND
WITH A FOREWORD BY BOB YOUNG, CHAIRMAN & CEO OF RED HAT, INC.

§ A Brief History of Technology
↳ by John Sharp

BC ┊ AC

BC: Before Computation
AC: After Computation

○ Technology is just a fancy word for tool.
  ↳ Computers are just another kind of tool
  ↳ Math is a technology of taking measure of the world

○ Dice : 6000 yr tech : A device used to create randomness

○ Newer technology doesn't always mean better technology
  ↳ eg : card stack search — removes the form of discovery that
         we used to have during search
     directory

○ Ada Lovelace
  ↳ worked with Charles Babbage
  ↳ realized the potential of computing

People who transformed
the use of tech

○ Alan Turing
# ○ Wanabeer Bush → thought of
○ Grace Hopper     a tech like
                   Google.com
○ Douglas Engelbart
  ↳ Invented mouse, GUI

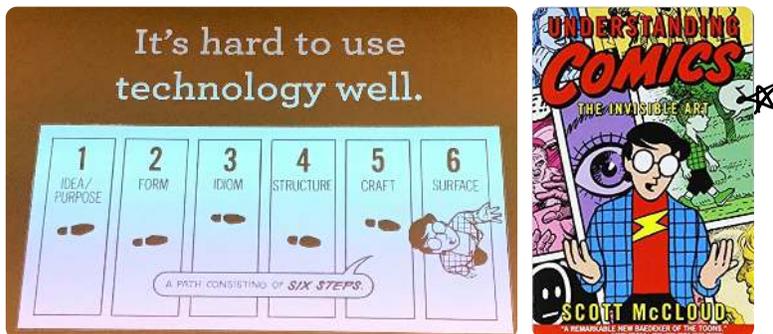○ KNEE was considered the most flexible part to use as a mouse
  ↳ not the hand

"...thou hast ordered all things in measure and number and weight."


Western visual art was the pursuit of accurate representation.

*Jackson Pollock's oil painting*

○ Hip Hop was the fine art of keeping the party going


It's hard to use technology well.

| 1 IDEA/PURPOSE | 2 FORM | 3 IDIOM | 4 STRUCTURE | 5 CRAFT | 6 SURFACE |
|---|---|---|---|---|---|

A PATH CONSISTING OF SIX STEPS


UNDERSTANDING COMICS
THE INVISIBLE ART
SCOTT McCLOUD
"A REMARKABLE NEW BAEDEKER OF THE TOONS."

○ You learn a lot of technology
   ↳ It's knowing why you are using it in the first place.

✱ Ira Glass


"And if you are just starting out or you are still in this phase, you gotta know its normal and the most important thing you can do is do a lot of work...."

— Ira Glass

→ ∃ gap : what we can do & what we want to do.

§ About Spring 2019 Registration

① Check your A/c ⟶ <u>no holds</u>  ( my.newschool.edu )
② <mark>Registrⁿ period : Nov 5 — Dec 21, 2018</mark> ⎤
③ Seminar ≠ Academic elective (ignore seminar)
  ↳ Academic ≡ reading, lecture, writing
④ Audit courses
  ⎰ Process : ☑ : Quizayra
  ↳ Cannot have a waitlist & course must be open
⑤ <mark>Jan 2 — Feb 4 : Add/Drop Classes</mark> ⟵
  ↳ Jan 2 : Waitlist clears ✗

⑥ If a course says "<u>Degree Students (with Restrictions)</u>", you
  must fill a form to register
⑦ Primary Source for reference
  ↳ Courses.newschool.edu & Class Finder (alvin.newschool.edu)
⑧ Check NSSR & Media Study Programs — for Academic electives

Pauses on
Dec 21
& reopens
on Jan 2

kurzweil.ai.net

✲ Ray Kurzveil
→ Director of engineering at Google
→ Inventor of Kurzveil synthesizer at Google
→ Known for his work on A.I.
→ Worked on text to speech synthesis
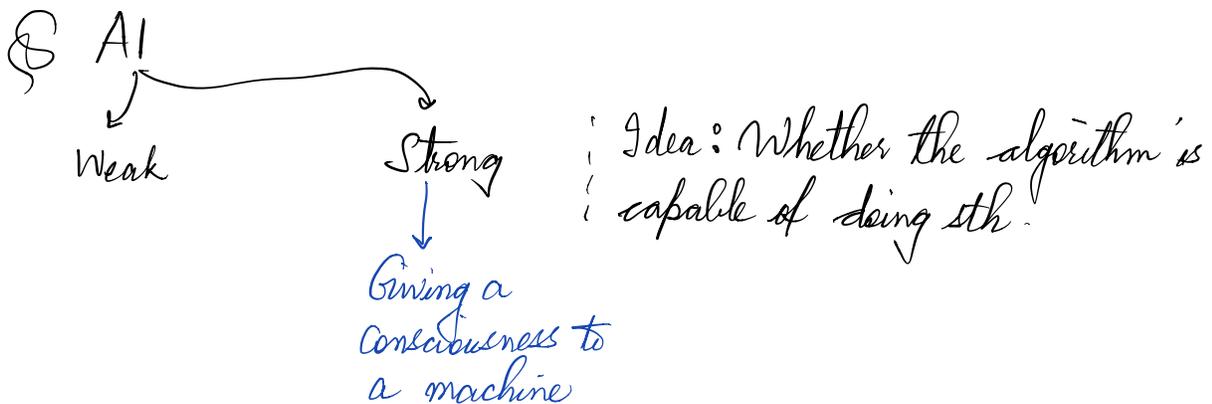→ Wrote a lot of books
  ↳ ✲ The age of Spiritual Machines

° Facial recognition, pattern recognition — takes immense brain power to do.

° Our brains are not logical — they operate & think differently (following from the assignment — Instruction Sets for Strangers)

° A recent good book by Ray Kurzveil
  ↳ The Singularity is Near

° Started a university : Kurzveil University, San Francisco

✲ Good magazine to read :
  MIT Technology Review
  (≡ HBR for tech)
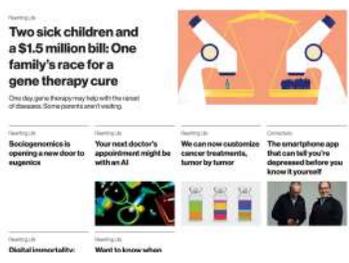
⚡ JCR Licklider

 ↳ Wrote pieces on the future of computers in the early 1950s
  ↳ Man-Computer Symbiosis
  ↳ Intergalactic Network

§ AI

Weak     Strong     ⋮ Idea: Whether the algorithm is capable of doing sth.

Giving a Consciousness to a machine

⚡ Alan Turing
 ↳ known as the father of AI
 ↳ Turing Test, Turing machines

⚡ Herbert Simon
 ↳ Famous AI researcher at CMU
 ↳ Book: The Sciences of the Artificial
 ↳ Logic Theorist → famous AI article



Herbert A. Simon

The Sciences of the Artificial

Third Edition
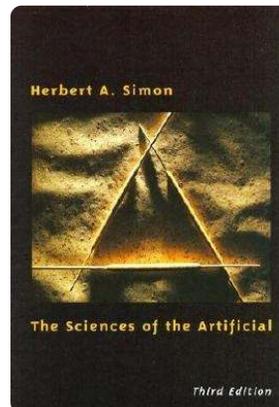
□ Computation & Algorithms        vs        Pattern Recognition
                    ↓                                        ↓
         Easy for Computers                      Hard for Computers

✱ Marvin Minsky (MIT)
    ↳ Very famous AI researcher
    ↳ Book: The Society of Mind
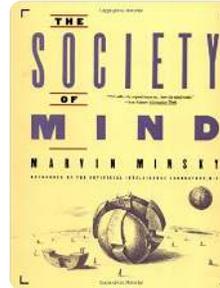


✱ John McCarthy
    ↳ AI researcher at Stanford
    ↳ Created LISP
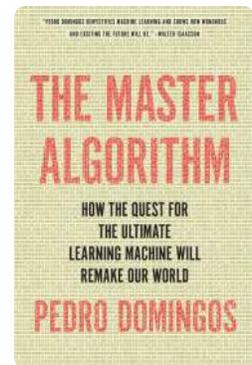            ↳ Modern Version: Clojure
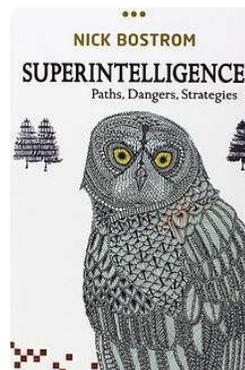
✱ James Barrat
    ↳ Book: Our final invention
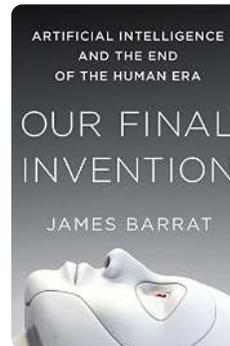


✱ Pedro Domingos
    ↳ Book: The Master Algorithm
        ↳ Critical thought on AI





✱ Nick Bostrom
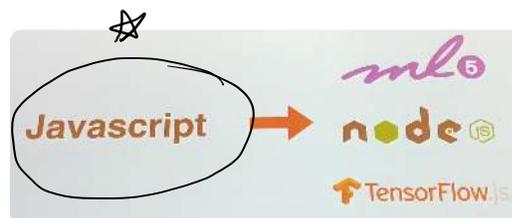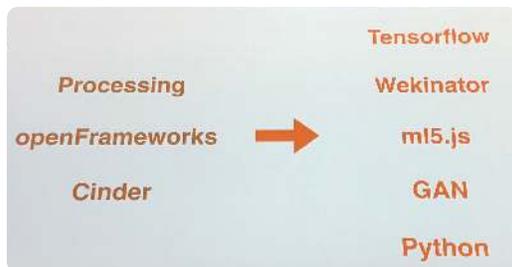    ↳ Book: Superintelligence

✱ **Final Assignment**
   ↳ Code, AI & You

§ Applications of AI (some of them)
   ○ Face Recognition
        ↳ Read article by TSA
   ○ Speech Recognition
   ○ Google Translate (& its other products)
        ↳ China is leading wrt language translation
   ○ Google Maps
   ○ Uber
   ○ Nest
   ○ IBM Watson
        ↳ Work on healthcare
             ↳ eg. insurance decision made by AI

○ As DT students, we have access to Watson API

○

| Processing | Tensorflow |
|------------|------------|
| openFrameworks → | Wekinator |
| Cinder | ml5.js |
| | GAN |
| | Python |

Javascript → ml5 / node.js / TensorFlow.js

- Class cancelled : Nov 19, 2018 (Thanksgiving)
- Last CC Lecture class : Mon, Dec 10th, 2018

☆ FINAL ASSIGNMENT
↳ Due : Dec 19, 2018
↳ Revised version of Technology & Me
↳ Code, AI & Me (1500 w)

- Apply to be a University Teaching Fellow
↳ To teach in Bootcamp
↳ Application comes in Jan 2019. ⟶ 15 seats
↳ Extremely competitive — Deadline : Nov 19, 2018.
⟶ Apply — they check for academic standing
↳ list of applic^ns comes out in Dec 2018.

- HOLIDAY PARTY : Dec 14, 2018 [D12]
↳ Friday

- Parsons is opening a new campus in Schengen, China.

☆ team Lab
  ↳ DMM Planets Art
  ↳ Transcening Boundaries
  ↳ teamlab : Planets : Toyosu Tokyo
  ↳ teamlab Massless : Finland



  ↳ Wed Nov 14, 3pm : Kellen Auditorium ——> 66 & 5th
      ↳ INTERNSHIP OPPORTUNITY

○ Google Interactive
    ↳ INTERNSHIP Opportunity
    ↳ Fri, Dec 7, 3pm : Kellen Auditorium

○ It would be either bootcamp teaching OR internship.
    ↳ Apply for both & choose carefully later.

—— ✕ ——

§ IoT ( INTERNET OF THINGS )
    ↳ Smart home, Eldercare, Healthcare, Transportation,
      Automation, Urban, Environment, Energy

    ↳ eg : Sonos : early adopter of IoT
        : Nest
        : Visual Light : DT graduate (Arduino based lightbulb)

✸ node.js
  ↳ Used to connect a browser to Arduino (/ any hardware)
  ↳ Used by PayPal, Uber
  ↳ Works with Raspberry Pie, Arduino Nano
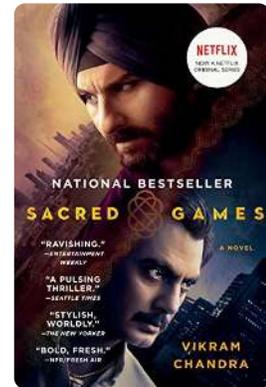  ↳ Uses JavaScript : has become an industry standard

✸
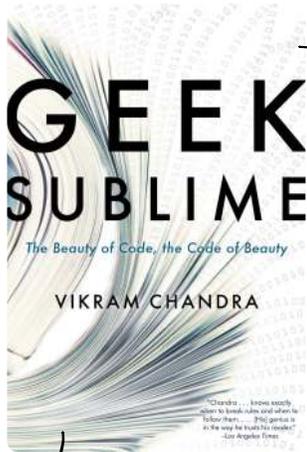


→ Final Reading Assignment

based on
one of
his books

↳ Question asked : Is Computer Programming Art ?
              : What are coders exactly making ?
              : Poetry & logic live in diff^t places.

◦ MFADT  Thesis Popup Show
   ↳ Dec 02, Sunday

Google UX
Friday, Dec 7th, 3pm
Kellen Auditorium
66 5th Ave, 1st fl

⟶ ≡ Google Interactive

→ Applications begin in January

◦ Final CC Lecture : Dec 10
      ↳ Display of the best work of the student
            ↳ Nominate  12-15 projects

◦ Final CC Paper : Code, AI and Me
      ↳ Due : Wed , Dec 19
      ↳ 1500 words

◦ Δ12 Holiday Party : Fri , Dec 14, 7 pm

◦ Take an appointment with Student Financial Services office
      ↳ to ask for Scholarships

◦ China trip collab : June 2019  (8-10 people )  : 10 Days

○ Manuel Lima
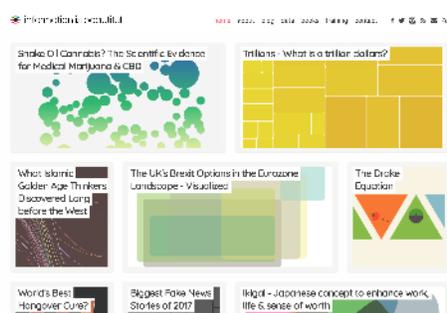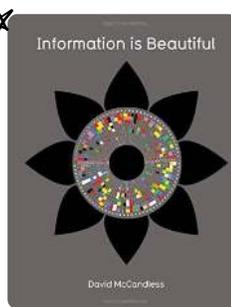  ↳ DT grad
  ↳ Worked on Inform^n Design
  ↳ TED Talker
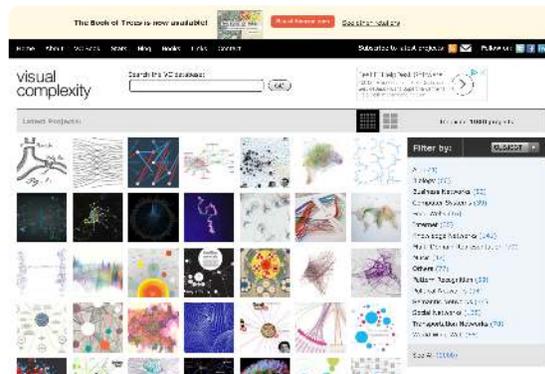



  ↳ Inspiration for giving presentations

○ Edward Tufte
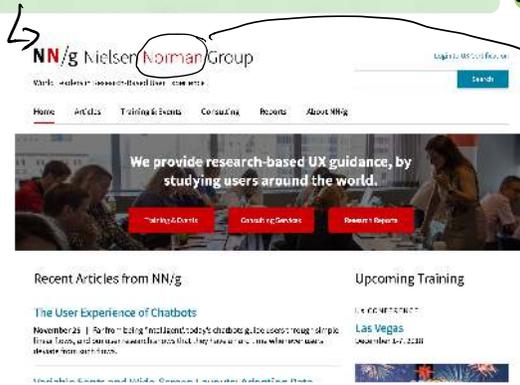  ↳ Known for Data Viz
    ↳ 1-day workshop




SECOND EDITION
The Visual Display
of Quantitative Information
EDWARD R. TUFTE
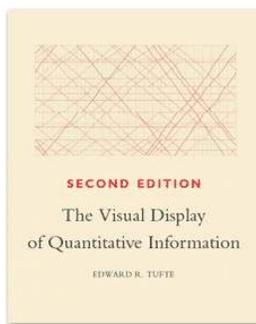
→ One of the best books

○ David McCandless
  ↳ Another Data Viz artist
  ↳ TED Talker

○ Jacob Nielsen
  ↳ Usability expert
  ↳ Focused on the web


Jakob Nielsen — Designing Web Usability


Jakob Nielsen, Raluca Budiu — Mobile Usability

**✗✗**


NN/g Nielsen Norman Group

→ Worked with Don Norman

→ Consultancy firm

○ Don Norman
  ↳ Design for Everyday Things
  ↳ Director of design for Apple (early days)




The DESIGN of EVERYDAY THINGS — DON NORMAN

— ✗ —
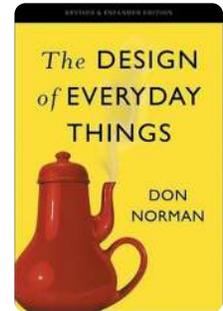
✗ CINDER
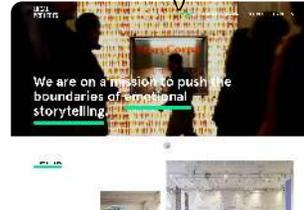  ↳ Alternative to openFrameworks
  ↳ Industry Standard
  ↳ Originally created by:
      The Barbarian Group
        ↳ Big Ad agency
  ↳ Open Source
      ↳ Not as large a community


A Powerful, Intuitive Toolbox
Cinder is a free and open source library for professional-quality creative coding in C++.
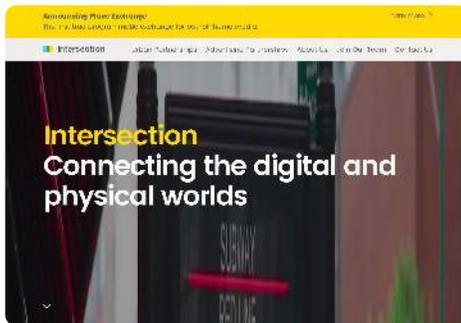
↳ Used by : Potion



Local Projects



✷ INTERSECTION (Owned by Google)
  ↳ One of the largest design firms in the city



Company behind Link NYC



↳ Great place for an internship

○ Final project display in the next CC lecture
  ↳ Dec 10, Monday
  ↳ Only the nominated ones ( min. 2 nominations needed)
    ↳ Submit nominations on bit.ly/CC projects 2018

○ Submit final paper
  ↳ Due : Wed, Dec 19
  ↳ Topic : Code, AI & Me ⟶ what do you think about it
  ↳ 1500 words
  ↳ ✉ : cc lecture 2018 @ gmail.com

Google UX
Friday, Dec 7th, 3pm
Kellen Auditorium
66 5th Ave, 1st fl
RSVP here:
https://goo.gl/tRdCkX

⟶ Google Internship Opportunity

✗ About CC Grades
  ↳ Lecture : 20% ( attendance, 2 writing assignment, list assign.)
  ↳ Lab : 80%.

○ About grades in general : DT faculty are lenient — Min. grade is usually B/B+ .

**D12 Holiday Party**
**Friday, Dec 14th, 7pm**
**bit.ly/D12party** → *To participate in supporting this party*

° No CC Lecture/Lab in Dec 3rd week (Dec 17, 18).
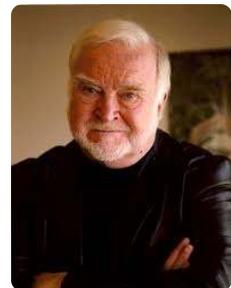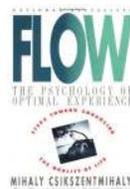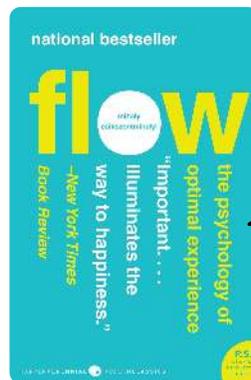° Most of the classes end in Dec 2nd week.

**China**
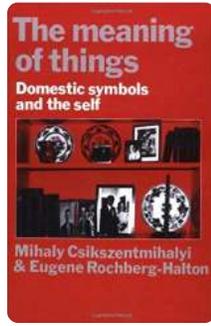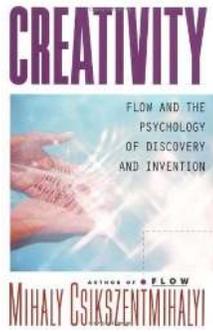**bit.ly/DTChina2019** → *Fill the form if interested*

→ Start loc : Beijing
→ June 3-14, 2019
→ People : 10
→ You can go on the trip for zero credits
→ There will be an info session for selected students

— ✗ —

° Flow
→ Master work of modern psychology
→ Used to be a CC Lecture Compulsory



Mihaly (Mee-hi)
Csikszentmihalyi
(Chik-sen-mee-hi)

→ Other good books by
Csikszentmihalyi

——∞——

○ DT program started in the 2000s with a focus on the web
   (∵ ∃ .com boom)

○ As you write your final MSI project, think about which
projects through this semester helped you achieve a "Flow" state.
   ⌐→ Those are the areas you want to focus on, for the
     future
   └→ "Flow" state ≡ had the best time

——∞——



✱ Bill Joy
⌐→ Known for: BSD Unix,
Founder — Sun Microsystems,
Founded — Java Language

The minute you finish your semester, start on a new project... anything

Go into next semester already heavily involved with something... anything

↳ Think about what you want to do. Next semester — inform your MS2 faculty next semester

Make it your goal to accomplish something during break at least as complicated as your Major Studio final

↦ o Do a project on JavaScript, Processing, Unity, & anything you want to use next semester

END OF COURSE