

HOW TO MARKET YOURSELF & YOUR RESEARCH

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NOTES ON ASSIGNMENT #4

- X Summary <<< Your thoughts (strengths and weaknesses)

- X “Comments for PC” field
 - Prof. Lee: “used for anything the TPC members want to discuss without revealing it to the authors”
 - e.g., calling for additional perspectives, submission history, ethical issues



WHY DO I NEED TO MARKET MYSELF AND MY RESEARCH?

- X “Do good work & let people know about it.” (David Karger on [Quora](#))
- X Self-promotion does matter.
 - Affects jobs, grants, awards, citations, ...
- X Helps you revise research vision & reassess impact.
- X Broadens research impact & audience.
- X Norms & culture vary between areas/communities.
- X Nothing replaces good research.

PROMOTING YOUR RESEARCH



"MARKETING" CHANNELS

- X Paper
- X Grant proposal
- X CV
- X Talk
- X Demo, poster
- X Video
- X Open data, code, material
- X Website
- X Social media
- X Media exposure
- X Productization / startup
- X Elevator pitch
- X Networking
- X Teaching
- X Academic service
- X Job market
- X Letters of recommendation
- X Collaboration



- X “The curriculum vitae, also known as a CV or vita, is a comprehensive statement of your educational background, teaching, and research experience. It is the standard representation of credentials within academia.”
- X CV vs Résumé
 - CV: can be long, academic purposes, focus: academic accomplishments
 - Résumé: 1 or 2 pages, industry jobs, focus: skills
- X Many researchers keep their CV up-to-date and make it publicly available, even if they are not looking for jobs.



CV: WHAT TO INCLUDE?

X Required components

- Name, contact information
- Education
- Honors & Awards
- Research interests
- Experience (positions held)
- Publications
- Teaching
- Talks
- Services

X Optional components

- Grants
- Patents
- Students
- Press
- Languages
- Skills
- References



CV: WHAT NOT TO INCLUDE?

- X Anything personal beyond contact info
 - Photo
 - Age, date of birth
 - Marital status
- X Long descriptions of projects and papers



CV: EXAMPLES

- X There are tons of available examples online.
- X Examples
 - [Minsuk Chang](#) (Ph.D. student)
 - [Me](#) (junior faculty)
 - [Scott Klemmer](#)
 - [Geoffrey Hinton](#)
- X Resources
 - https://www.oise.utoronto.ca/orss/UserFiles/File/Creating_your_academic_cv_handout_1.pdf
 - <https://grad.illinois.edu/sites/default/files/PDFs/CVsamples.pdf>



DEMO & POSTER

- X Great way to show off your work & talk to people
 - Remember “let people know about it” part?
- X Many conferences have non-archival / lightly reviewed tracks
 - In ML, CV, etc., full papers get poster slots.



← UIST 2017
demos



UIST 2015 →
posters



POSTER TIPS

- X** Avoid making it text-heavy.
 - Use as talking points, not a printed version of the paper.
 - Many people will look at it from a distance.
- X** Add your contact info.
 - Many people might see it even when you're not at the booth.
- X** Acknowledge sponsors.
- X** Bring a laptop for additional info and/or demo.
- X** Examples & Resources
 - [UIST poster gallery](#)
 - [Research Posters 101](#)

Interaction Peaks and Data-Driven Interfaces for Online Lecture Videos

Juho Kim (MIT CSAIL)

with Rob Miller (MIT CSAIL)



Understanding In-Video Dropouts and Interaction Peaks in Online Lecture Videos.

Juho Kim, Philip J. Guo, Daniel T. Seaton, Piotr Mitros, Krzysztof Z. Gajos, Robert C. Miller. *Learning at Scale 2014*, to appear.

Video interaction data from MOOCs

Motivation: How do students learn from videos on Massive Open Online Courses (MOOCs)? We analyze **video interaction data** (pause, play, scrubbing).

Dataset: interaction log from 4 edX courses in Fall 2012

Course	Subject	University	Students	Videos	Video Length	Processed Events
6.034	Intro CS & Programming	MIT	59,135	143	7:40	4,491,448
PH207x	Statistics for Public Health	Harvard	30,742	301	10:48	15,832,068
CS148.1x	Artificial Intelligence	Berkeley	22,690	149	4:45	14,374,203
1.0001x	Robot State Chemistry	MIT	15,381	273	6:19	4,852,837
Total			127,839	862	7:46	39,319,737

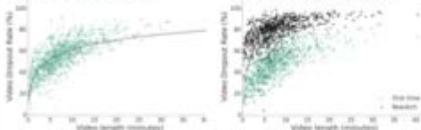
Video dropout analysis

Video dropout: percentage of students navigating away from a video before completion

Overall dropout rate: 55.2% (36.6% within the first 3%)

Longer videos have a higher dropout rate.

Re-watching sessions have a higher dropout rate.



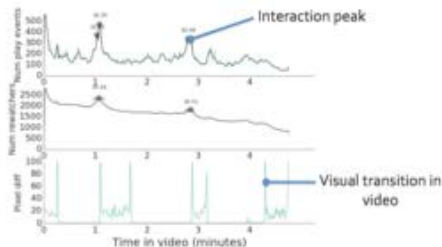
Interaction peak analysis

Interaction peaks occur when a significant number of students play, pause, or replay at the time of the video.

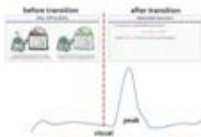
- 3.7 peaks per video on average
- **Tutorial videos** show more frequent and stronger peaks than **lecture videos**.
- **Re-watching sessions** show more frequent and stronger peaks than **first-time sessions**.

What causes interaction peaks to occur?

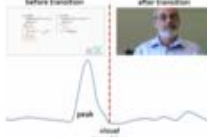
Observation: interaction peaks often accompany visual transitions in the video.



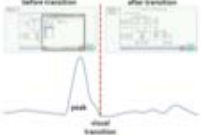
1. Beginning of new material



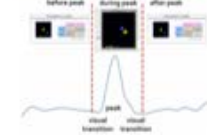
2. Returning to content



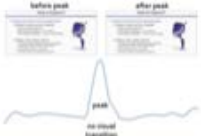
3. Tutorial step



4. Replaying a segment



5. Non-visual explanation



More content channels for future analysis

- Transcript: text analysis
- Acoustic: speech analysis

Implications

For video editors & instructors

- Avoid sudden visual transitions
- Make shorter videos

For video interfaces

- Provide interactive links and screenshots for highlights.
- Consider video summarization for selective watchers.
- Enable one-click access for steps in tutorial videos.

Data-driven video interface

Can video interaction data be used to improve students' learning experience?

Video interface dynamically generated by learner data



Acknowledgements

- This work is supported in part by **Quanta Computer & edX**.
- Juho Kim is supported by the **Samsung Fellowship**.



- X Visual demonstration of your technique with storytelling
- X It scales! (it's like demoing to the whole world)
- X It lasts! (even if your demo cannot run live anymore, video is likely to still play)
- X It engages! (who doesn't like watching cool videos?)
- X Common in HCI/Graphics/Vision
- X Examples
 - [Not Going to Take This Anymore: Multi-objective Overtime Planning for Software Engineering Projects](#)
 - [inFORM – Interacting With a Dynamic Shape Display](#)
 - [Revealing Invisible Changes In The World](#)



OPEN SCIENCE

- X More emphasis on open science (data, code, reviews, questionnaires, etc.)
- X Important for greater impact & replicability
- X Helps to keep a project website with all resources available
- X Examples
 - [RecipeScape: An Interactive Tool for Analyzing Cooking Instructions at Scale](#)
 - [MoSculp: Interactive Visualization of Shape and Time](#)
 - [CMU Panoptic Dataset](#)



OPEN SCIENCE: ARTIFACT EVALUATION

- X Gaining popularity in PL/SE
- X ACM supports artifact review & badging

Artifact Review and Badging:

A variety of research communities have embraced the goal of reproducibility in experimental science.
[\[more information\]](#)

Artifacts Evaluated Functional

The artifacts associated with the research are found to be documented, consistent, complete, exercisable, and include appropriate evidence of verification and validation.

Artifacts Evaluated Reusable

The artifacts associated with the paper are of a quality that significantly exceeds minimal functionality.

Artifacts Available

Author-created artifacts relevant to this paper have been placed on a publically accessible archival repository.

Results Replicated

The main results of the paper have been obtained in a subsequent study by a person or team other than the authors, using, in part, artifacts provided by the author.

Results Reproduced

The main results of the paper have been independently obtained in a subsequent study by a person or team other than the authors, without the use of author-supplied artifacts.



WEBSITE

- X Various people might want to learn about you and your work.
 - They mostly start by Googling your name.
- X Convenient to route people to various resources: “It’s on my website.”
- X Could be seen as a visual, creative, accessible version of your CV.
 - Videos, images, news items, travel schedule, etc. can be shown.
- X More important for junior researchers who need more visibility.
- X Most CS academics nowadays have one.
- X Examples
 - [Hyeungshik Jung](#)
 - [Stefanie Mueller](#)
 - [Frans Kaashoek](#)
 - [Me](#)
 - [Maneesh Agrawala](#)
 - [Barbara Liskov](#)



NETWORKING & CONFERENCES

- X You're there as an active participant, not as consumer.
- X Listen to talks, but more importantly, talk to people.
- X List up people you want to talk to.
 - People who do relevant research regardless of their fame.
- X Prepare elevator pitches.
 - You'll be asked "Are you presenting anything" numerous times.
- X Try NOT to hang out with labmates while speaking in Korean (or other non-English languages).
- X Make introductions & ask for introductions.



NETWORKING & CONFERENCES: RESOURCES

- X [Attending Professional Conferences as a Newcomer](#) by Philip Guo
- X [Networking Tips for Younger PhD Students](#) by Jean Yang
- X [Advice for Social Interactions & Relationships](#) by Philip Guo



PC: Philip Guo @
CHI 2017

JOB MARKET

SOME NOTES

X N=1

X Quick tour of what the last year of Ph.D. looks like
(if you target the U.S. job market)

X On the U.S. (& KAIST) job market in 2014–2015

MY ULTIMATE VISION FOR KAIST STUDENTS

- X Faculty at top schools anywhere in the world! MIT, Stanford, CMU...
- X Because... you can.
- X But we need more leadership in the field, and students can and should be a driving force.

THE TIMELINE

- X 2014.8: discussion with advisors
- X 2014.9–11: research statement
- X 2014.10: letters of recommendation
- X 2014.11: teaching & diversity statement
- X 2014.11–12: school / company selection
- X 2014.12: application
- X 2015.2–4: interview
- X 2015.4–5: offer
- X 2015.5: decision

1. DISCUSSION WITH ADVISORS

X The talk: “Can I graduate?”

- Am I ready?
- Does my advisor think I’m ready?
- Does the market think I’m ready?

X Three pillars of research

X Market fluctuation >> my productivity increase

2. RESEARCH STATEMENT

- X Your identity as a researcher
- X Past & future with focus on results, impact, and vision

- X At least 2 months
- X 10+ readers at different stages
- X 2-3 complete rewrites

3. LETTERS OF RECOMMENDATION

- X One of the most important parts, partly because letters can't be easily made up and take time & effort to get & write
- X Strong letter, well known > Weak letter, well known
> Strong letter, less known > Weak letter, less known
- X Every letter says "best": it's the descriptor that matters.
- X Plan your writers YEARS in advance.

4. TEACHING & DIVERSITY STATEMENT

- X Often not a crucial factor in R1 universities
- X Teaching statement
 - Need a philosophy
 - Possible courses you can teach
 - Something beyond TAing helps.
- X Diversity statement
 - How you plan to contribute to diversity
 - Equal vs. Equitable

5. SCHOOL / COMPANY SELECTION

X ~15 places

X 10–30 is quite common in HCI/CS job market

X Rule of thumb: $1/3$ interview offers, $1/3^2$ final offers

6. APPLICATION

- X RS, TS, DS, Letters
- X CV, Cover letter, Website
- X Advisors' gentle prod
- X Now pray... at least focus on something ELSE
- X Don't try to overthink what's happening at these places.

7. INTERVIEW

X Job talk

- Most people spend months on it
- 5–10 practice talks, video recordings
- The most organized / prepared talk you'll listen to
- Attend & watch many job talks, especially ones outside your area.

X Interview day

- 1–2 days, 10–20 1–on–1s, 3+ uncomfortable meals
- Faculty, students, dean / chair / head, potential collaborators from other departments

8. OFFER

- X You're 갑 for the first time, and only for a short time.
- X Enjoy the negotiation process.
- X Salary, startup fund, space, teaching load, etc.
- X Deferring for 0.5 or 1 year might be a compelling option, especially if you're a fresh Ph.D.

9. DECISION

- X People in your area, department, school
- X Community, life, location, family
- X Industry vs Academia, Korea vs US vs ...
- X Probably a more painful decision than you think.
- X Make sure you stay in good terms with people at places you turn down.

JOB MARKET LESSONS

- Job market prep starts TODAY.
 - Community building in at KAIST is a great first step.
- “What do you want to be known as?”
 - “That person who did X”
- You are the product. Advertise yourself.
 - Getting people to know you is difficult.
 - You can easily write 10 papers nobody cares about.
 - Engage in community discussions & volunteer to lead efforts.
 - Collaborate, give talks, & visit places.

RESOURCES

- X [Tomorrow's Professor mailing list](#)
- X [Philip Guo's blog & Ph.D. Grind](#)
- X [Jean Yang's blog](#)
- X [mcpanic.com](#): 박사과정을 돌아보며
- X [UCSD job talk videos](#)
- X [Juho Kim's faculty app material](#)