

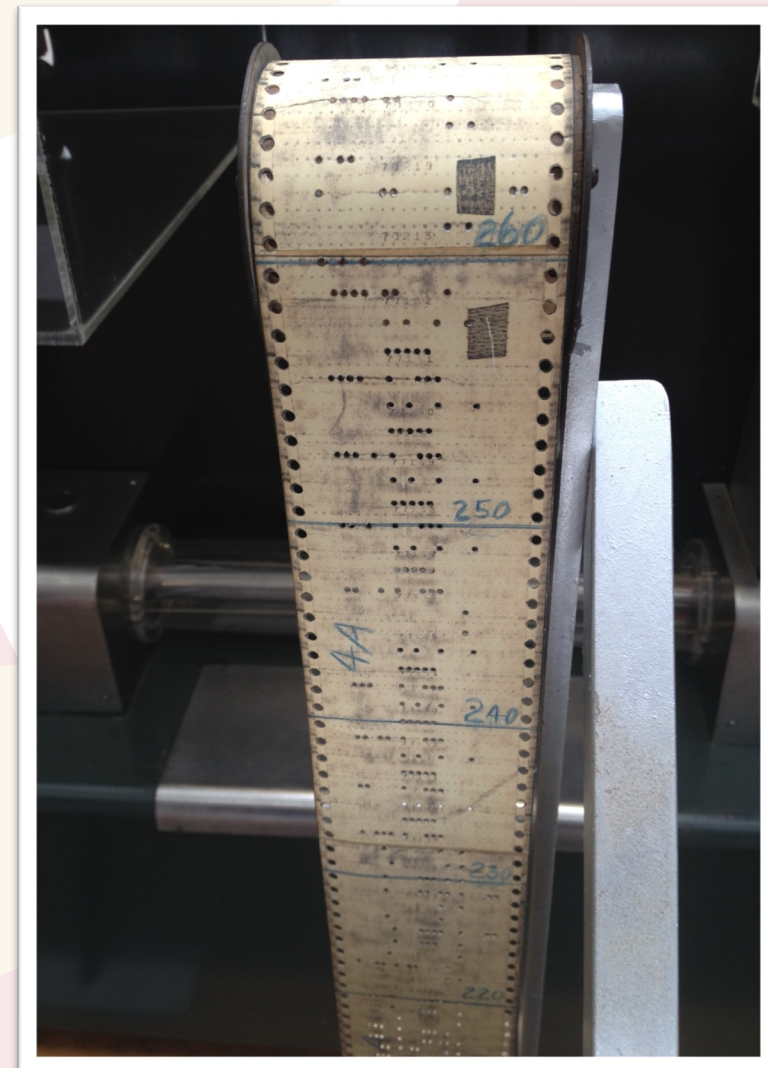
HCI

History & Conferences

Adam Kohl

Some Computer History

- Atanasoff-Berry Computer (1941)
 - First electronic digital computing device
 - At Iowa State!
- Harvard Mark I (1944)
 - Paper tape readers with physical patches



Programming Languages

- Moving beyond punch cards
- FORTRAN, 1957 from IBM
 - Dorothy Vaughan
- COBOL, 1960
 - Grace Hopper, “Mother of COBOL”
- Still “Batch Processing” – no interaction



Ivan Sutherland

- MIT Ph.D. thesis: Sketchpad, 1963
- Light pen
- Hierarchy
 - pictures & subpictures
- Icons
- Copying
- 3D rotation



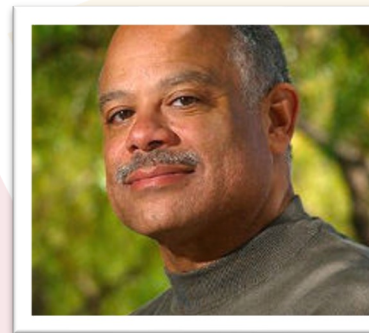
Douglas Englebart

- NLS: oNLine System
- “Mother of all demos” at 1968 conference
 - Hypertext
 - Windows
 - Audio + video conferencing
 - File version control
 - Mouse & control box
- Note: no Unix, no ARPAnet/Internet yet



Personal Computers

- IBM XT/AT (1981)
 - Command line & sold many units
- Xerox Star (1981)
 - WIMP GUI
 - Windows, Icons, Menus, Pointers
 - Commercial failure
- Apple Lisa (1983)
 - Based on Xerox Star & failed
- Apple Macintosh (1984)



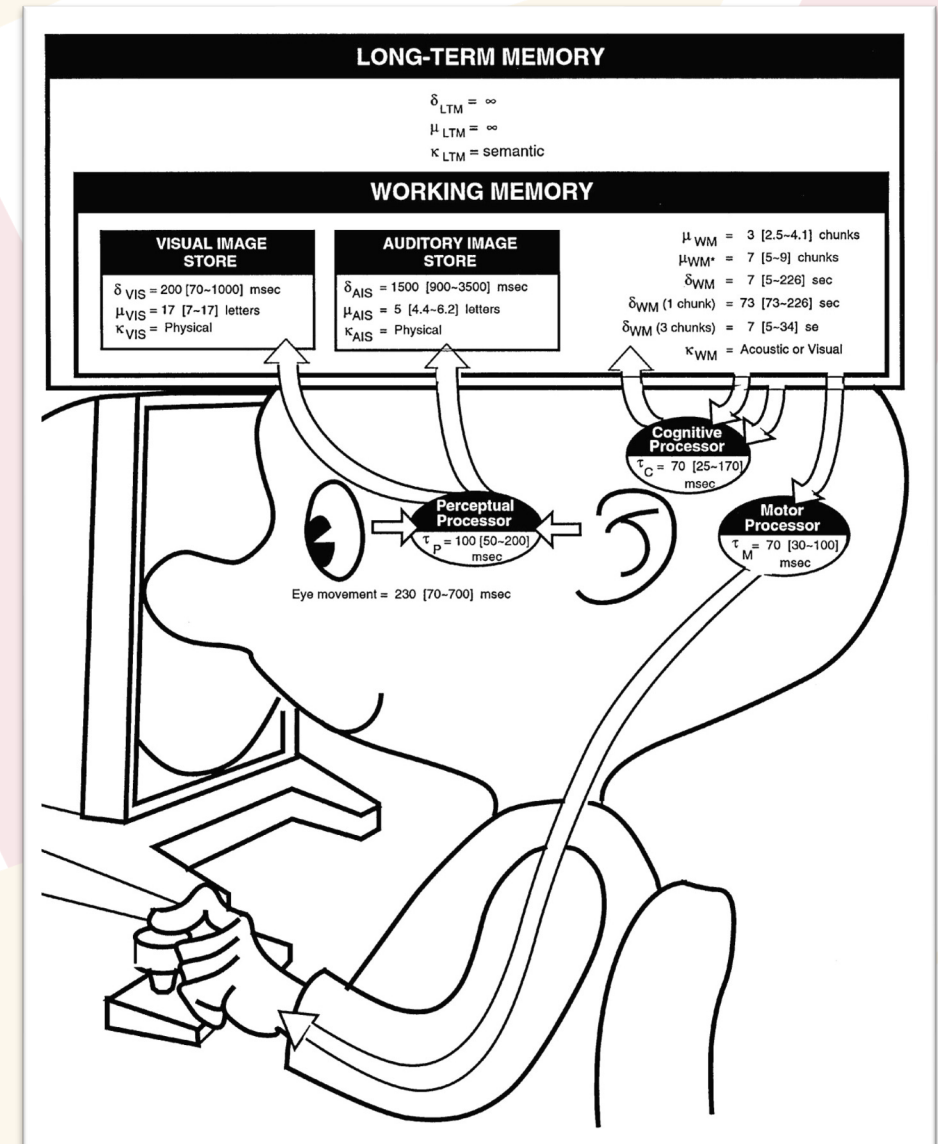
1987: Apple's Knowledge Navigator vision

- Takes place in 2011
- What does it get right?
- What's wrong?
- What do we still need to do?
- Notes:
 - iPhone 2007
 - iPad 2010
 - Siri 2011

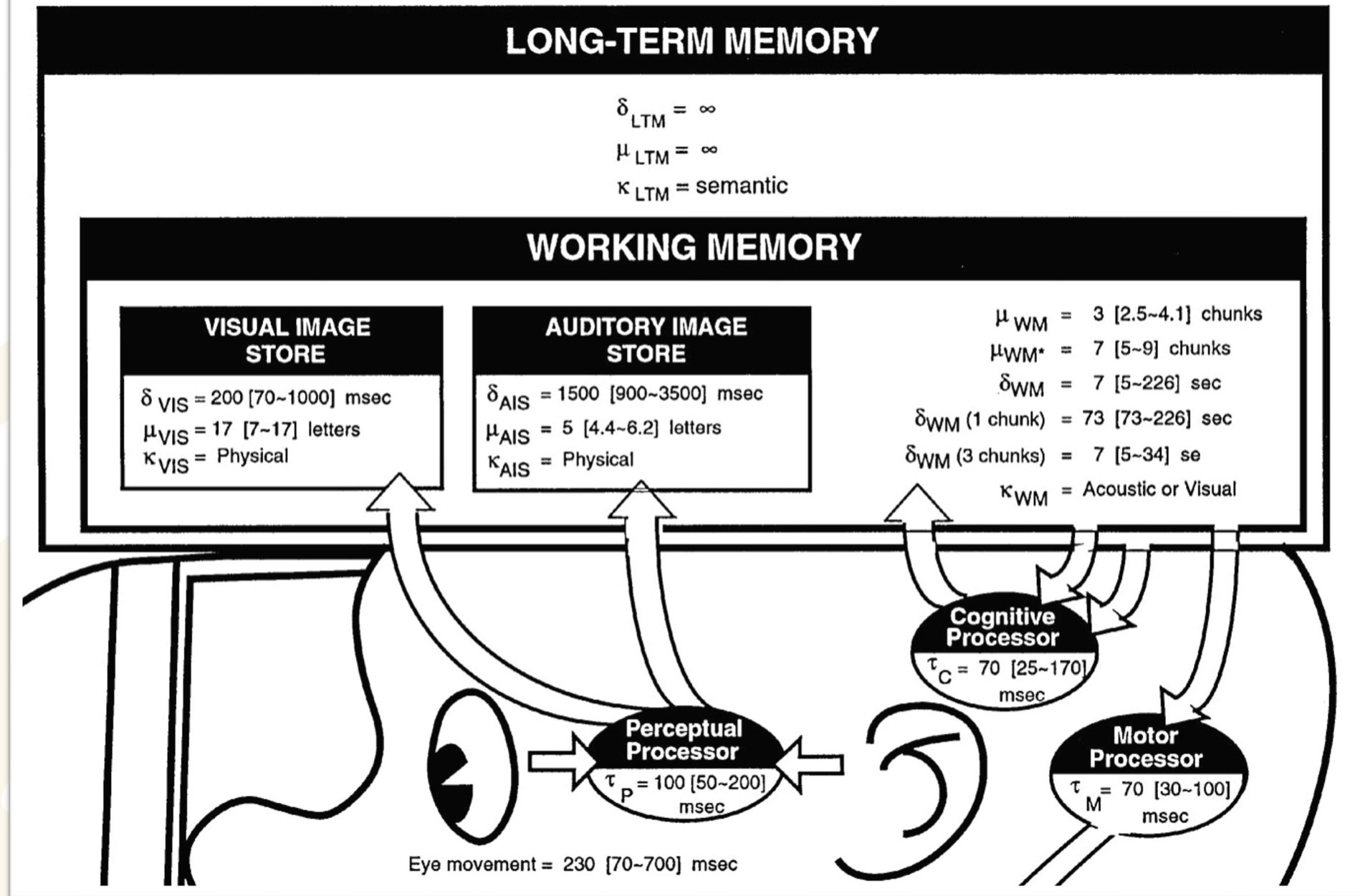


First Wave

- Treat human like a machine
- What can it do?
- Cognitive Science
- Psychophysics
- Human Factors
- People at desks at work



- Info Processing Model
- Card, Moran & Newell



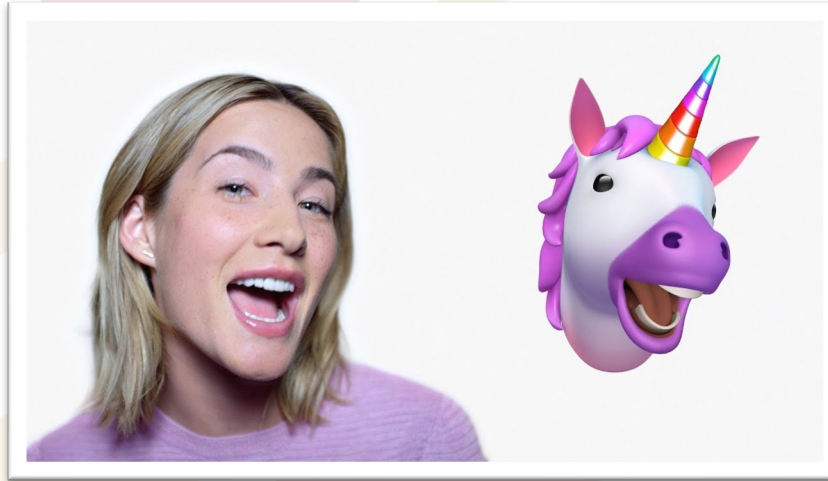
Second Wave

- The whole human
- Groups of Humans
- Situated action / intent
- CSCW
- Participatory Design
- Workplace groups
- Technology is separate



Third Wave

- Social dynamics
- Culture
- Emotion
- Affective computing
- Human-Agent Teaming
- Non-work activities



Conferences

- What is a conference?
- Conference activities
- Why are conferences important?
- HCI & XR conferences?
- Funding to attend conferences
- **Activity: browse IITSEC program**

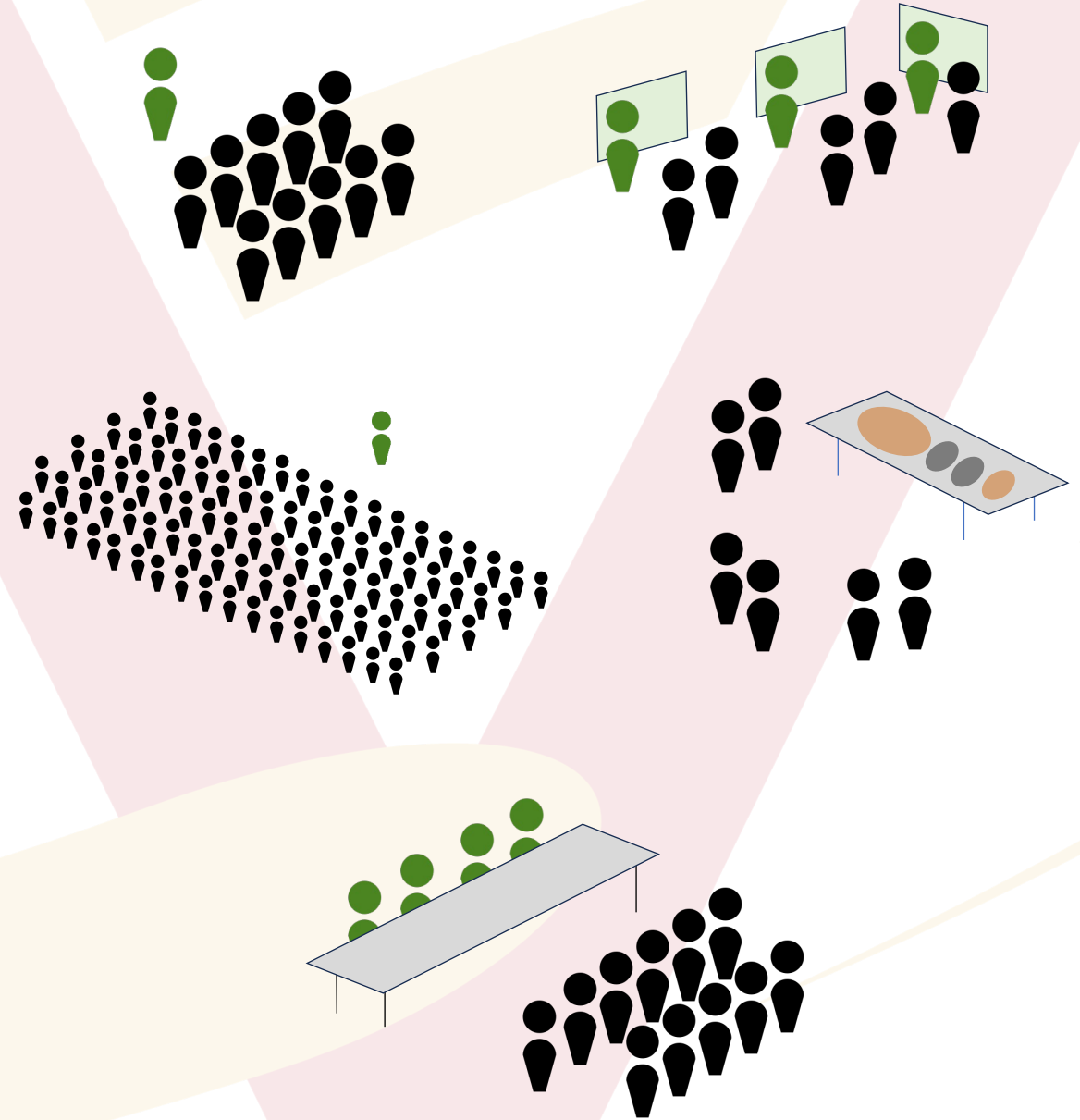
What is an Academic Conference?

- A multi-day event in which researchers present their work
- An opportunity to network with other experts in your field
- More research-focused than industry conferences such as CES



Conference Activities

- Papers
- Posters
- Workshops
- Courses/Tutorials
- Keynote/Plenary Speakers
- Panels
- Demos
- Competitions
- Networking Activities



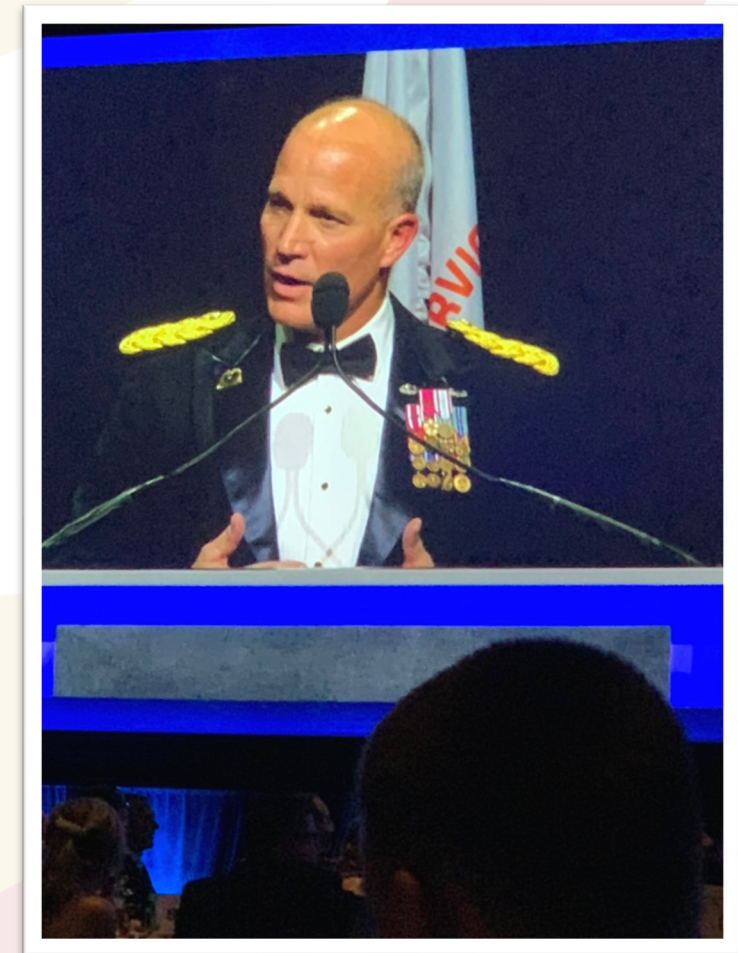
Papers & Posters

- Conference papers
 - Published in conference proceedings
 - 15–30-minute talk at the conference
 - Sometimes a journal route
- Posters
 - Create a poster and talk with people who come by



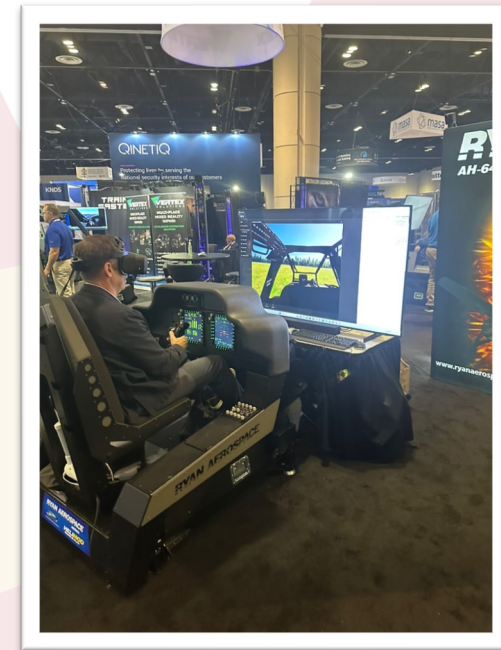
Keynote Speakers & Panels

- Top researchers in academia and industry
- Keynote speakers give a brief lecture
- Panels are Q&A sessions with experts



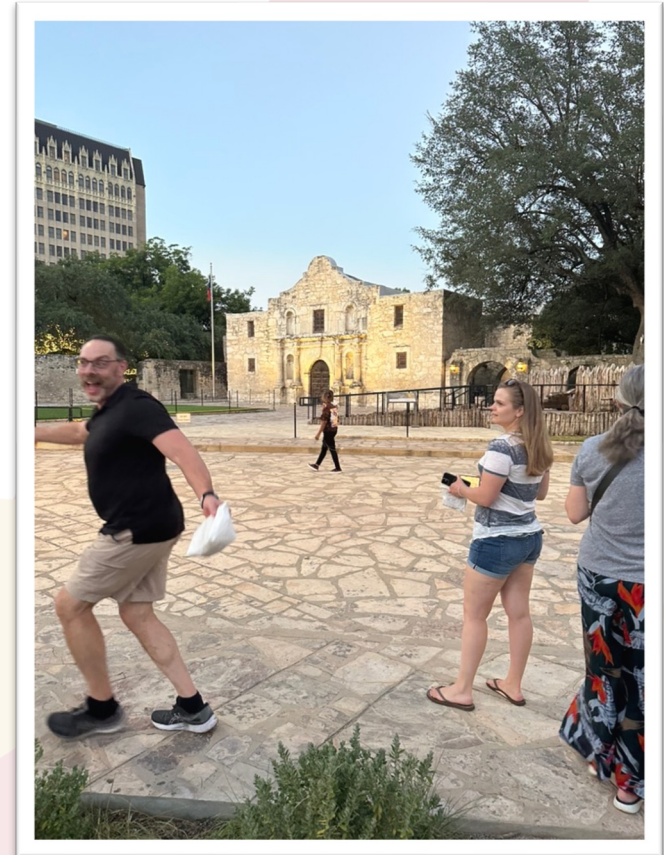
Demos & Competitions

- Conferences often have an exhibit hall with demos
 - Academia and industry
- Some conferences have competitions for students



Networking Activities

- Numerous official / unofficial networking opportunities
- Conference sponsored events
 - Meet and greets
 - Happy hours
 - Birds of a Feather sessions
- Company sponsored events
- Unofficial meetups with friends and colleagues




ACM SIG CHI

- Conference on Human Factors in Computing Systems
- One of the premier HCI conferences
- Excellent outlet for UX research
- Best paper awards
- Industry & Academia
- Many videos

A Large-Scale Longitudinal Analysis of Missing Label Accessibility Failures in Android Apps

• Paper Captioning Images, Videos and Applications

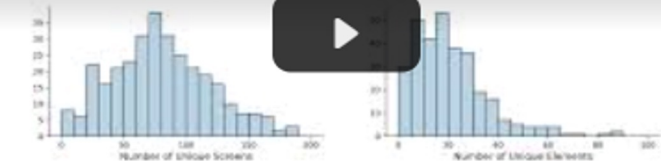
 [Raymond Fok](#), [Mingyuan Zhong](#), [Anne Spencer Ross](#), [James Fogarty](#), [Jacob O. Wobbrock](#)

University of Washington | University of Washington | Bucknell University | University of Washington | University of Washington

Presentation Video

Longitudinal Dataset of App Screens

We release the dataset publicly to invite further reuse and analysis.¹



¹Instructions for dataset access can be found at <https://github.com/appaccess/LAMA-Chi2022>



HFES

- Human Factors and Ergonomics Society
- Ergonomics focused conference
 - Overlap with UX, MR, & other topics
- Conferences sometimes referred to as “annual meetings”



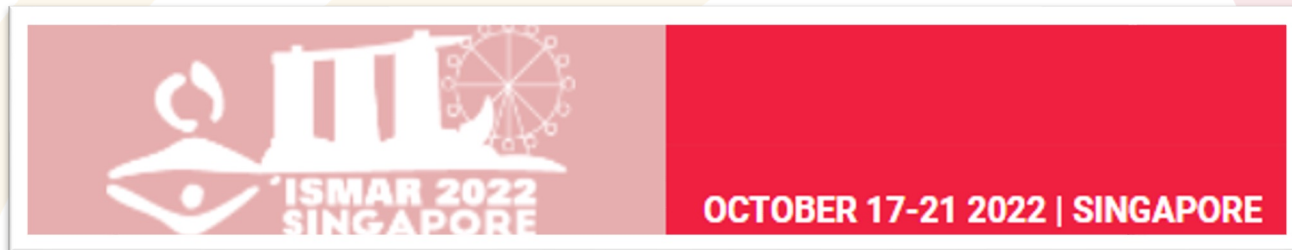
IEEE VR

- Institute of Electrical and Electronics Engineering Virtual Reality
- One of the premier XR focused conferences
- Alternates between US and International locations
 - Virtual or hybrid
- Annual 3DUI competition
 - VRAC runner-up in 2019



IEEE ISMAR

- International Symposium on Mixed and Augmented Reality
- The premier conference for AR
- Extremely competitive papers
 - On par with many journals



IMPORTANT DATES

Call for Journal Papers

Abstract deadline: March 7th, 2022 (23:59 AoE)
 Paper submission deadline: March 11th, 2022 (23:59 AoE)
 Notification: May 22nd, 2022
 Final decision: July 2nd, 2022
 Camera-ready version: July 30th, 2022

Call for Conference Papers

Abstract deadline: May 27th, 2022 (23:59 AoE)
 Paper submission deadline: June 3rd, 2022 (23:59 AoE)
 Notification: August 3rd, 2022
 Camera-ready version: August 22nd, 2022

Call for Poster Papers

Paper submission deadline: June 20th, 2022
 Notification: August 15th, 2022
 Camera-ready version: August 22nd, 2022

Call for Workshops

Proposal deadline: May 6th, 2022 (23:59 AoE)
 Acceptance notification: May 16th, 2022
 Calls for participation issued by: June 6th, 2022
 Acceptance notifications issued by: August 8th, 2022
 Camera-ready materials: August 31st, 2022

Call for Tutorials

Proposal deadline: May 6th, 2022 (23:59 AoE)
 Acceptance notification: May 16th, 2022
 Camera-ready materials: August 31st, 2022

Call for Demonstrations

Submission deadline: August 10th, 2022
 Final notification: August 25th, 2022
 Camera-ready version: August 31st, 2022

Call for Doctoral Consortium

Submission deadline: July 3rd, 2022 (23:59 AoE)
 Notification: July 31st, 2022
 Camera-ready version: August 21st, 2022
 Consortium meeting: October 17th and/or 21st, 2022

Call for Student Volunteers

Application deadline: August 15th, 2022 (23:59 AoE)
 Notification: September 10th, 2022 (23:59 AoE)

Call for Mentors/Mentees

Submission deadline: September 5th, 2022 (23:59 AoE)
 Match notification: September 20th, 2022 (23:59 AoE)

Call for "Pitch Your Lab"

Submission deadline: September 2nd, 2022 (23:59 AoE)
 Notification: September 16th, 2022

Call for Sponsorship and Exhibition

[Contact us](#)
 sponsorships_exhibits_chairs@ismar2022.org

I/ITSEC

- Interservice/Industry Training, Simulation, and Education Conference
- Unique blend of military, industry, and academia
- Immense exhibit show floor
- Strong ties to ISU via Eliot
 - 2023 Conference Chair
 - 28 publications
 - 7 scholarship winners
 - Dr. Stacy MacAllister I Top 10 under 40



Funding to Attend Conferences

- University conference funding programs
- Department-specific funding
- Professor or Advisor funding

Expenses

Registration \$300
 Flight \$600
 Lodging x 4: \$1000
 Per diem x 4: \$240

UNDERGRADUATE CONFERENCE FUND APPLICATION

The Senior Vice President and Provost and the Senior Vice President for Student Affairs have established a fund to help undergraduate students pay expenses incurred by attending regional, national, and international conferences.

Students may apply for funding as individuals or on behalf of student organizations.

Maximum amounts awarded to individual applicants are \$400.00 (for students making presentations) and \$100.00 (for students attending but not making presentations). Generally, students attending conferences as a group (two or more students) will not be funded for more than \$50.00 per student, and the maximum amount awarded for any single conference will not normally exceed a total of \$750.00, no matter how many students attend. Owing to factors such as cost of attendance, availability of funds, and the number of applications received, the amounts awarded will vary, and you may not be awarded the full amount you request.

What makes a conference good?

- Acceptance Rate
- Lower rates α greater the prestige
 - ACM & IEEE conferences

Past CHI Conferences

Archive	Location	Acceptance Rate (Accepted/Submitted)	Attendance (Registrations)
CHI '23	Hamburg, Germany	879/3182 = 27.6%	4670 (3882 in-person, 782 online)
CHI '22	New Orleans, USA	637/2579 = 24.7%	3856 (1930 in-person, 1926 online)

I/ITSEC Program Browsing

- 5 min by yourself
 - Browse I/ITSEC program
 - Choose 2 talks you'd want to see
 - Think of 2 questions you have about HCI.
- 5 min in pairs – Tell each other your 2 talks and 2 questions.
- Group – Tell everyone 1 talk and 1 question.
- Let me show you how to browse it...

Homework: Bad Usability Scavenger Hunt

- Find 2 interfaces that are frustrating for the user (websites or physical items: Doors, Chairs, Game Controllers, etc.) and capture them (photo or screenshot) by end of Sunday.
- Describe:
 - The user's task and context
 - What is working/not working
 - What could make it better
 - Blog them: start post title with "HCI:"
 - Due by end of Sunday

