Research community

Jun Kato

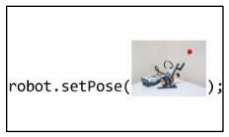
AIST, Arch Inc., Universite Paris-Saclay

#non_research_tips #情報科学研究補助技法

Jun Kato | 加藤 淳 |  @ junkato | https://junkato.jp

- **The University of Tokyo** Igarashi Lab ’09 BSc, ’11 MSc, ’14 PhD
- **Microsoft Research** Asia ’12/1-4 Research Intern / **Microsoft Research** ’12/6-9 Research Intern
- **Adobe** Creative Technologies Lab, Seattle ’13/8-11 Research Intern
- **National Institute of Advanced Industrial Science and Technology (AIST)** ’14/4- Researcher, ’18/10- Senior Researcher
- **Arch Inc.** ’18/7- Technical Advisor (PI at R&D unit Arch Research)
- Universite Paris-Saclay ‘24/4- Visiting Scientist

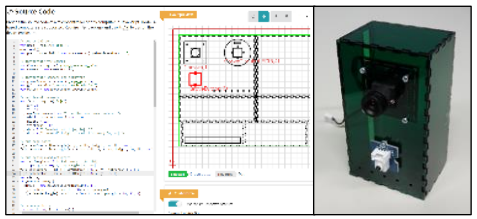
DejaVu
[ACM UIST'12]

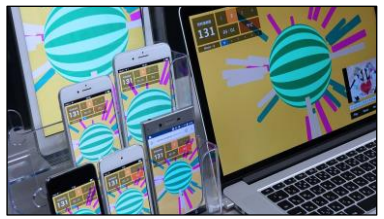


Picode
[ACM CHI'13]

TouchDevelop
[ACM PLDI'13]


TextAlive **[ACM CHI'15]**


f3.js **[ACM DIS'17]**


Lyric App Framework **[ACM CHI'23]**

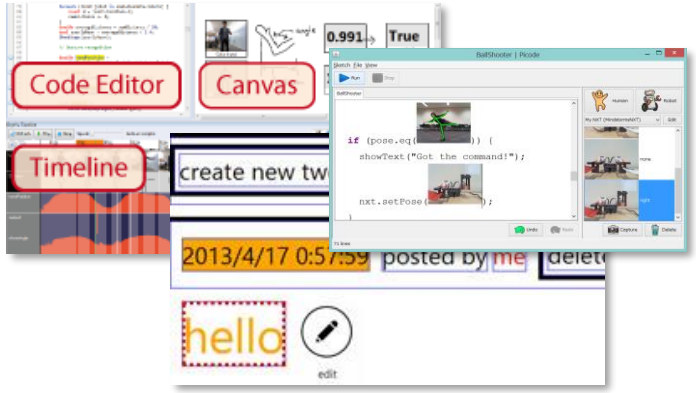

Griffith **[ACM CHI’24]**

Human-Computer Interaction researcher **studying creative activities** e.g., programming, video authoring, storyboarding through **building and deploying creativity support tools**

プログラミング、動画・絵コンテ制作などの**創造的活動を支援するシステムを研究開発、社会展開**してきた**Human-Computer Interaction**分野の研究者

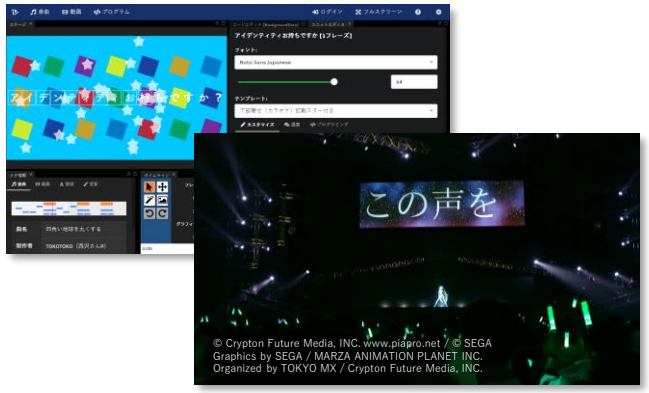
My research style: **a toolsmith researcher**

A researcher who builds computational tools for creative people (creativity support tools, toolkits, programming environments)



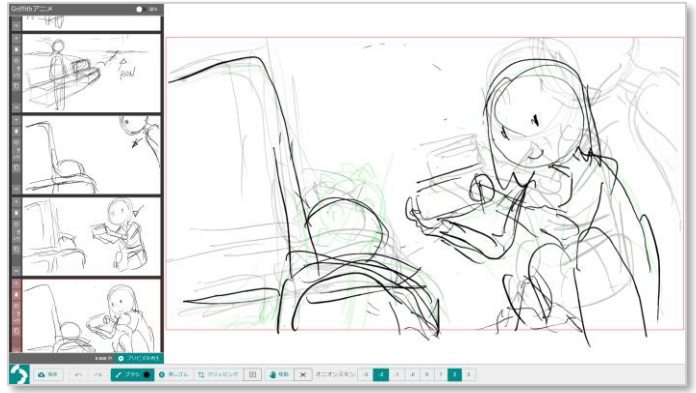
Programmers

DejaVu [UIST '12], Picode [CHI '13 Honorable Mention], TouchDevelop [PLDI '13]



Musicians

TextAlive [CHI '15 Honorable Mention], Lyric App Framework [CHI '23 Honorable Mention]



Anime directors

Griffith [SAS '21 (non-archival), ISID '21 & '22 Best Poster Awards, CHI '24]

More examples at https://junkato.jp/projects

Research community: agenda

- Why “community”?
- Community basics
- How to find “right” community
- Get involved in community

Why “community”?

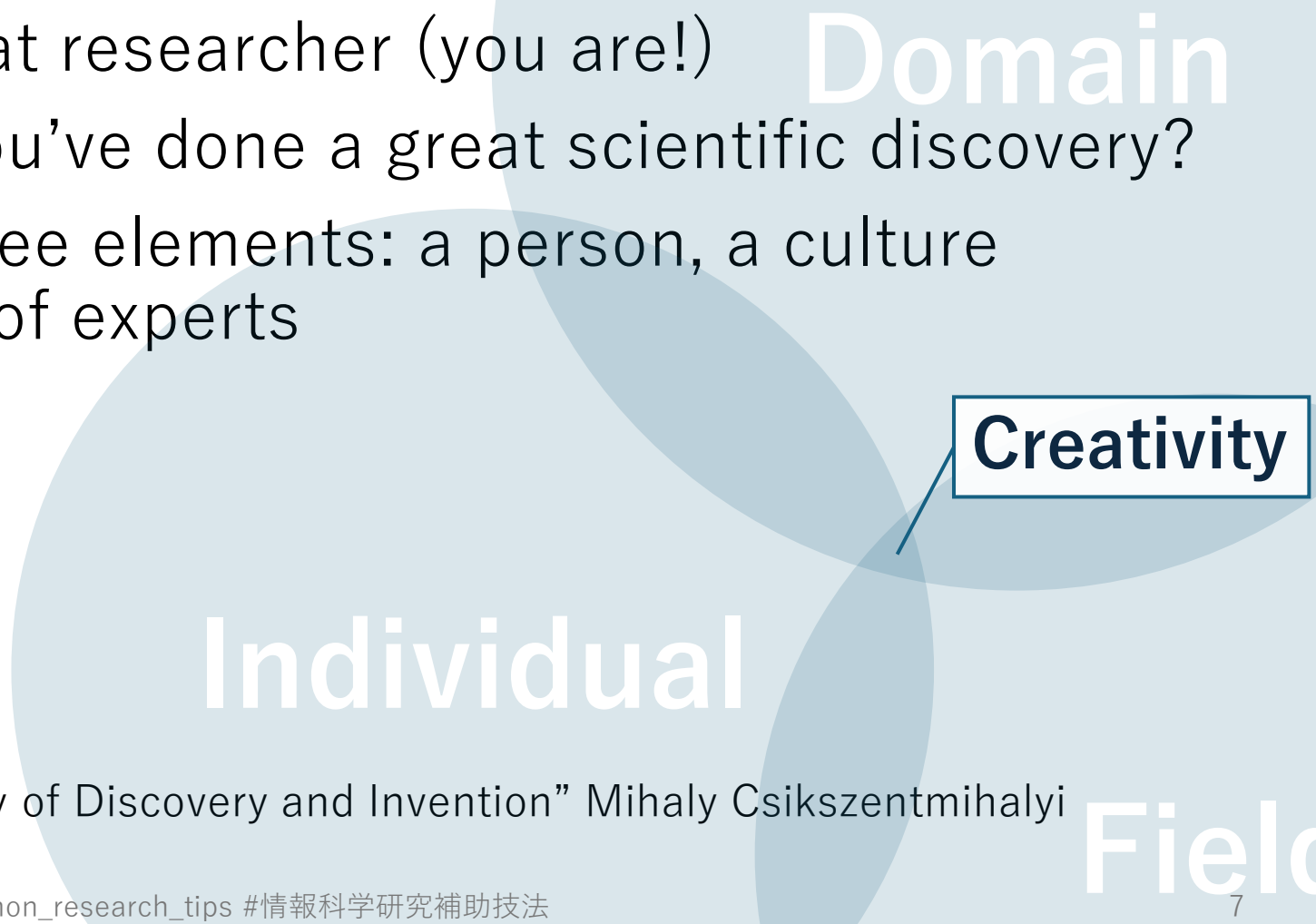
Research community

Why “community”?

- **You cannot be creative alone** – “Creativity: Flow and the Psychology of Discovery and Invention” Mihaly Csikszentmihalyi
- **Community enables learning** – “Situated Learning: Legitimate Peripheral Participation” Jean Lave and Etienne Wenger
- **Research is not a dead-end** – “HCI Research as Problem-Solving” Antti Oulasvirta / “On the Relationship between HCI Researchers and Creators” Jun Kato

You cannot be creative alone

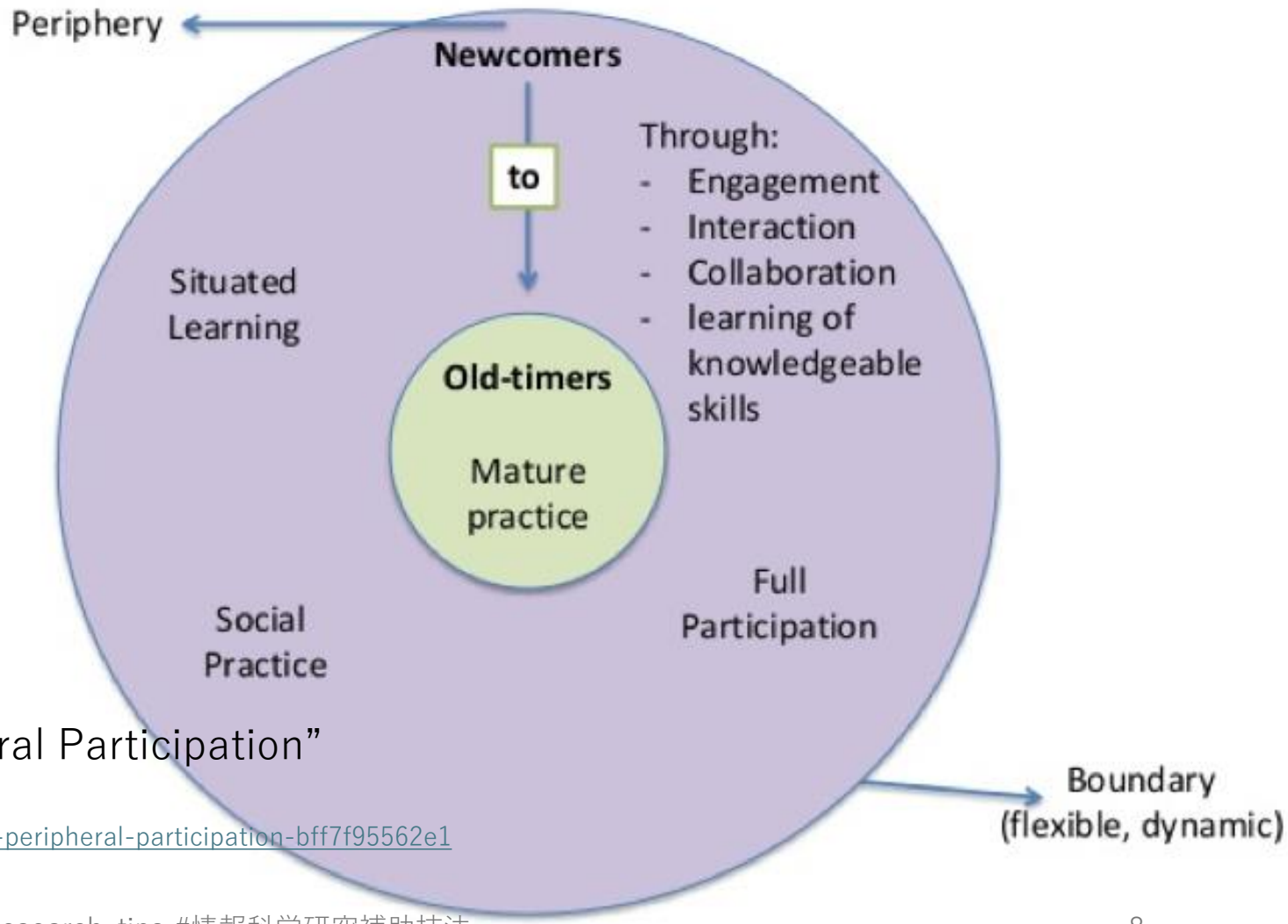
- Suppose you're a great researcher (you are!)
- How can you prove you've done a great scientific discovery?
- There needs to be three elements: a person, a culture (domain), and a field of experts



"Creativity: Flow and the Psychology of Discovery and Invention" Mihaly Csikszentmihalyi

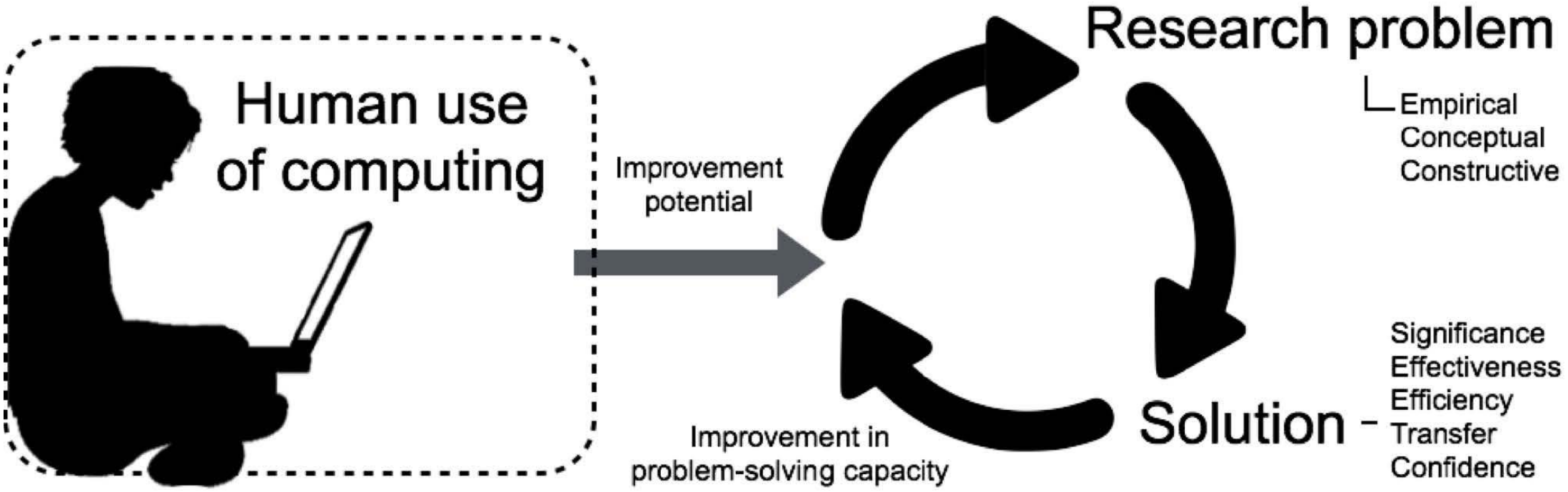
Community enables learning

- Learning is fundamentally a social process
- Newcomers gradually become old-timers in communities of practice



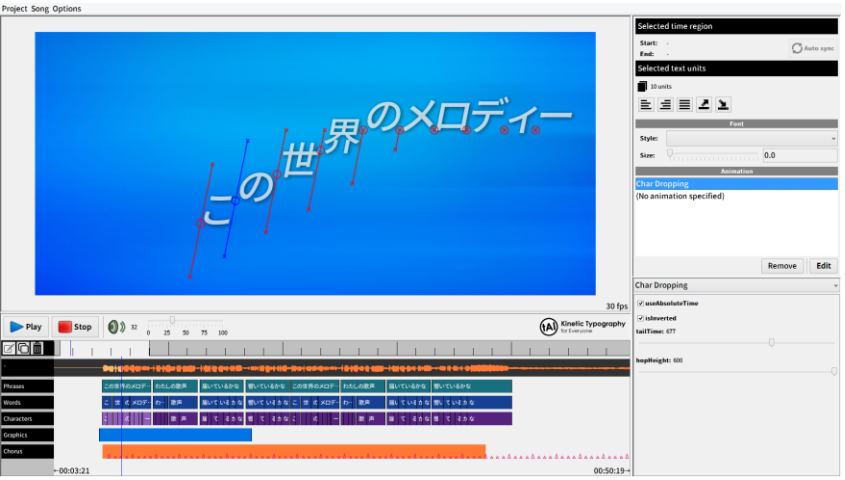
“Situated Learning: Legitimate Peripheral Participation”
Jean Lave and Etienne Wenger
Figure: https://medium.com/@woaini154568903/lpp-legitimate-peripheral-participation-bff7f95562e1

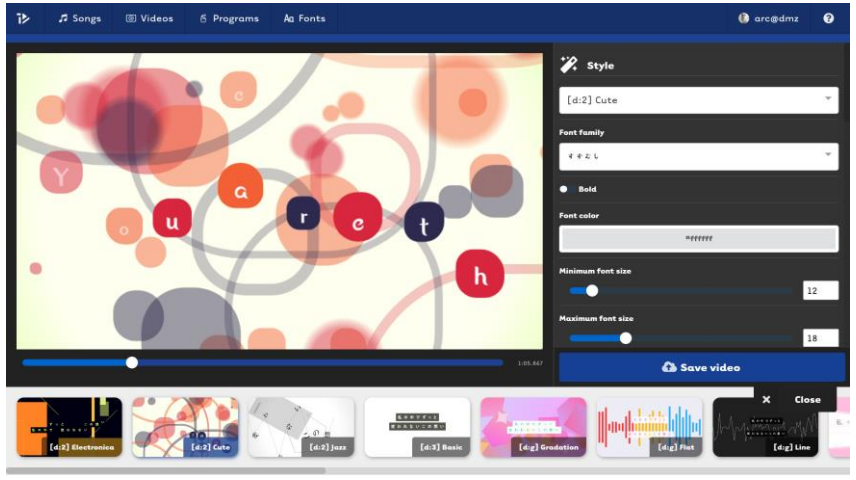
Research is not a dead-end [1/2]



“HCI Research as Problem-Solving” Antti Oulasvirta [ACM CHI 2016]

Research is not a dead-end [2/2]





We computer science researchers must always be careful that we are not cherry-picking the activities of artists just for the sake of research.

"On the Relationship between HCI Researchers and Creators" Jun Kato [ACM XRDS, Summer 2023]

Why “community”?

- **You cannot be creative alone** – “Creativity: Flow and the Psychology of Discovery and Invention” Mihaly Csikszentmihalyi
- **Community enables learning** – “Situated Learning: Legitimate Peripheral Participation” Jean Lave and Etienne Wenger
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Community basics

Research community

How has “community” evolved?
From 17th century to date

The Royal Society (UK) started as a community to share and discuss scientific discoveries in the 17th century

- Motto: *Nullius in verba (Take nobody's word for it)*
- It is an expression of the determination of Fellows to withstand the domination of authority and to verify all statements by an appeal to facts determined by experiment.

https://royalsociety.org/about-us/who-we-are/history/
https://ja.wikipedia.org/wiki/Nullius_in_verba#/media/%E3%83%95%E3%82%A1%E3%82%A4%E3%83%AB:Bookplate_of_the_Royal_Society_(Great_Britain).jpg

How has “community” evolved?
18th and 19th centuries

- **The Academie des Sciences (FR)** started in the 17th century, and more societies were established in the 18th century to disseminate scientific knowledge to the public.
- Various special interest societies were established in the 19th century, representing diverse academic disciplines.

https://ja.wikipedia.org/wiki/%E3%83%95%E3%82%A1%E3%82%A4%E3%83%AB:Acad%C3%A9mie_des_Sciences_1671.jpg

How has “community” evolved?
20th century

Many international societies were founded in the 20th century, including **ACM** and **IEEE**.

Founded in 1947

Founded in 1963

How has “community” evolved?

- **The Royal Society (UK)** started as a community to share and discuss scientific discoveries in the 17th century.
- **The Academie des Sciences (FR)** started in the 17th century, and more societies were established in the 18th century to disseminate scientific knowledge to the public.
- Various special interest societies were established in the 19th century, representing diverse academic disciplines.
- Many international societies were founded in the 20th century, including **ACM** and **IEEE**.
- Big companies accumulate scientific knowledge within the organizations and influence applied sciences, including information science.

What are roles of “community” nowadays? (ACM as an example)

- **Knowledge accumulation**: Conference Proceedings, Journals, ACM Digital Library
- **Knowledge dissemination**: Communications of the ACM, Journal of the ACM, ACM Queue, ACM Crossroads
- **Membership benefits**: Grammarly for free and Overleaf discount (ACM SIGCHI only), CareerNews, TechNews, discount for online courses, …
- **Advocacy and outreach**: Global Technology Policy Council
- **Networking and collaboration**: Academic events

- Members receive free access to **Grammarly** (via sigchi.org email alias).
- Members receive a 20% discount on **Overleaf subscriptions**.
- Members can seek support from **SIGCHI CARES** if they experience discrimination and/or harassment in any of SIGCHI's activities. (Note that you do not need to be a member to seek support from CARES.)
- Members receive a (physical) subscription to the **Interactions** magazine, published six times per year.
- Members are added to the SIGCHI-Members mailing list, where SIGCHI updates are first announced.
- Retired individuals who have been SIGCHI members for the last 10 years and are at least 60 years old can receive a discounted membership rate of USD 10 (per year).

Membership | SIGCHI
https://sigchi.org/people/membership/

participate in the SIGCHI Executive Committee's monthly open meetings and open sessions that discuss important matters to guide the future of SIGCHI.

How to find “right” community

Research community

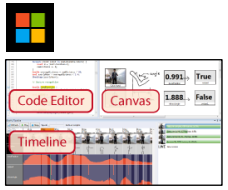
道具鍛冶研究者・加藤淳さんの「研究室から街へ、世界へ」
https://www.aist.go.jp/aist_j/magazine/20240415.html

How to find “right” community

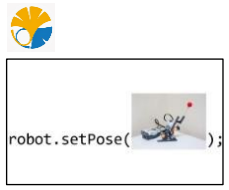
- **Read many papers**
- Listen to “personal” talks
- Sometimes explore different disciplines

Academic papers: cutouts

- Each paper contributes new knowledge to the community
- Papers are usually “**cutouts**” of people’s work, so don’t stop by reading one – find “**networks**”



DejaVu
[ACM UIST'12]



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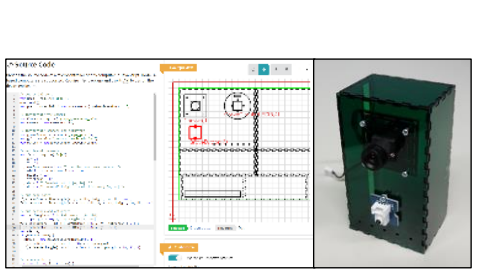
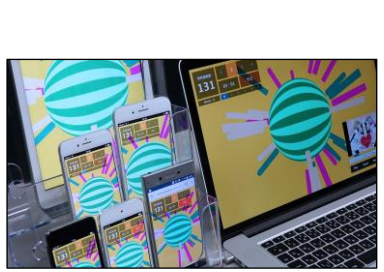
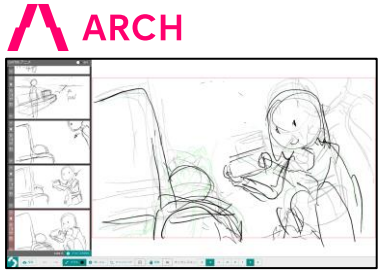


f3.js **[ACM DIS'17]**



Lyric App Framework **[ACM CHI'23]**



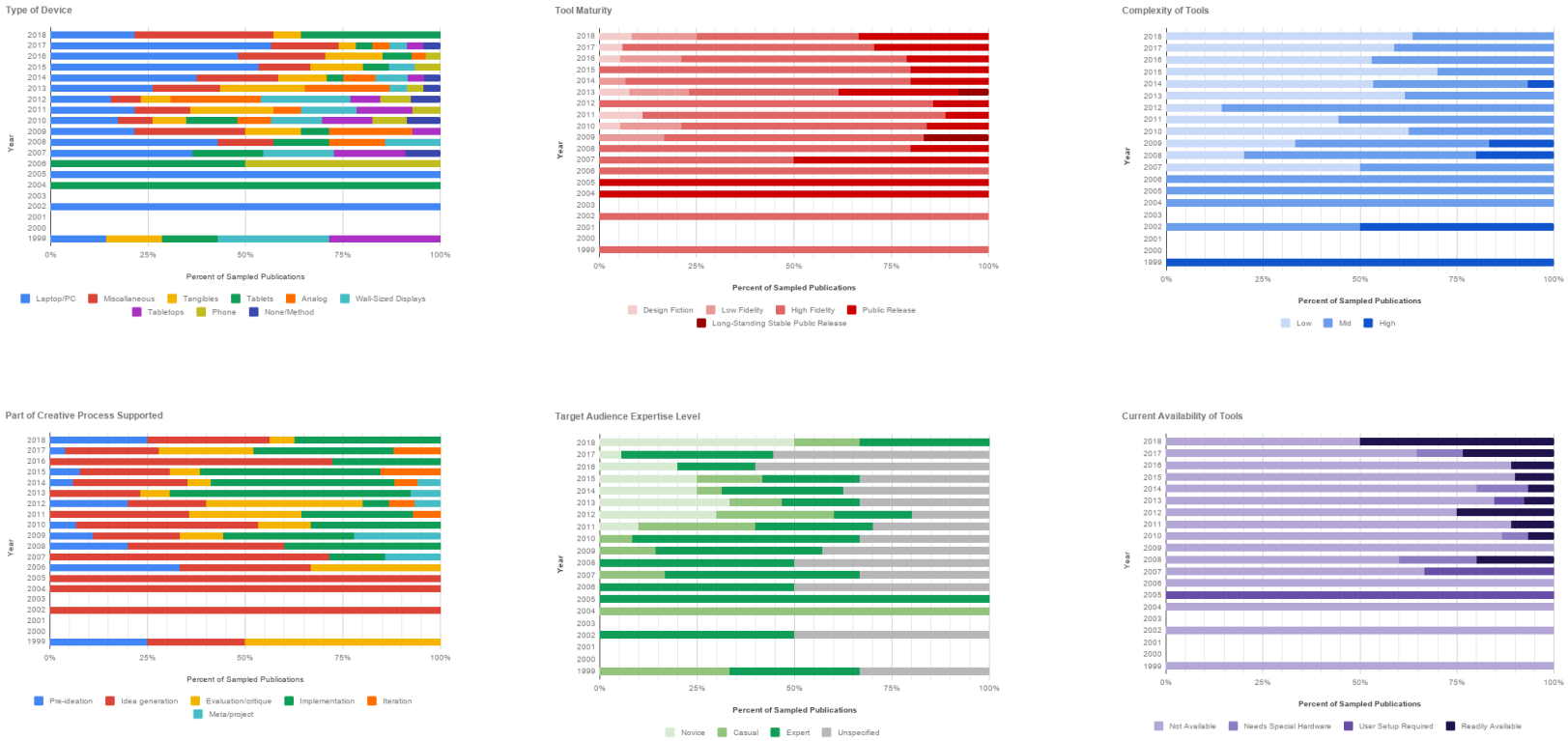
Griffith **[ACM CHI'24]**

Academic papers: find networks

- Notice some authors who appear for many times
  - They could be key figures in the scene
  - Search their names online, find their labs/papers, remember their faces, and see them at conferences!
  - (Consider them as potential reviewers when writing papers)

- Try understanding the trend
  - Sometimes it's a good idea to look for **special types of papers**: survey papers and opinion papers

Survey paper: many references! (e.g., 193)



“Mapping the landscape of creativity support tools in HCI” Jonas Frich et al. [ACM CHI 2019]

Opinion paper: deep dive into the field

- “Usability evaluation considered harmful (some of the time)” Saul Greenberg and Bill Buxton [ACM CHI 2008]
- “Third-wave HCI, 10 years later – participation and sharing” Susanne Bodker [ACM Interactions, Sep.-Oct. 2015]

Or something in-between…

#	TOOLKIT	VENUE	YEAR	REF	TYPE 1	TYPE 2	TYPE 3	TYPE 4
1	Context Toolkit	CHI	1999	[91]	■		■	
2	DENIM	CHI	2000	[60]	■	■		
3	Toolkit-Level Support for Ambiguity in Recognition-Based Interfaces	CHI	2000	[62]	■			
4	SATIN	UIST	2001	[41]	■		■	
5	Phidgets	UIST	2002	[32]	■	■		
6	Speakeasy	UIST	2003	[80]	■			
7	iStuff	CHI	2003	[4]	■			
8	MAUI Groupware Toolkit	CSCW	2004	[40]	■	■	■	
9	DiamondSpin	CHI	2004	[98]	■			
10	Papier-Mâché	CHI	2004	[52]	■	■	■	
11	Calder	DIS	2004	[57]	■		■	
12	ICON	ICMI	2004	[22]	■			
13	Toolkit Design for Interactive Structured Graphics	TSE	2004	[6]		■	■	
14	DART	UIST	2004	[61]	■	■		
15	MaggLite Post-WIMP Toolkit	UIST	2004	[47]	■		■	
16	Peripheral Displays Toolkit	UIST	2004	[68]	■			
17	Prefuse	CHI	2005	[38]	■	■		
18	SubArctic	CHI	2005	[46]	■			
19	d.Tools	UIST	2006	[37]	■	■		
20	SwingStates	UIST	2006	[2]	■	■		
21	Exemplar	CHI	2007	[36]		■		■
22	CapToolkit	PerCom	2007	[109]	■		■	
23	ReacTIVision	TEI	2007	[48]	■			
24	Shared Phidgets	TEI	2007	[65]	■	■		
25	VoodooIO	TEI	2007	[101]	■			
26	Gummy	AVI	2008	[71]	■	■		■
27	Damask	CHI	2008	[59]	■	■		
28	VoodooSketch	TEI	2008	[12]	■			
29	GT/SD	EICS	2009	[23]	■			
30	PyMT	ITS/ISS	2009	[35]	■			
31	Protovis	TCVG	2009	[13]	■	■	■	
32	Sikuli	UIST	2009	[115]	■	■	■	■
33	Intuino	DIS	2010	[103]	■	■		
34	Amarino Toolkit	MobileHCI	2010	[50]	■	■		
35	Intelligibility Toolkit	Ubicomp	2010	[58]	■			■
36	D-MACS	UIST	2019	[70]	■			■
37	Prefab	CHI	2010	[20]	■			
38	TouchID Toolkit	ITS/ISS	2011	[67]	■			
39	D3	TCVG	2011	[14]	■		■	
40	Proximity Toolkit	UIST	2011	[64]	■	■		
41	Phybots	DIS	2012	[49]	■	■		
42	jQMultiTouch	EICS	2012	[76]	■	■		
43	PuReWidgets	EICS	2012	[15]	■			
44	.NET Gadgeteer	Pervasive	2012	[102]	■	■		
45	HapticTouch Toolkit	TEI	2012	[55]	■	■		
46	Midas	UIST	2012	[95]	■	■		
47	PaperBox	C&C	2012	[107]	■	■		
48	WorldKit	CHI	2012	[113]	■			
49	KinectArms	CSCW	2013	[28]	■	■	■	
50	OpenCapSense	PerCom	2013	[33]	■		■	
51	ToyVision Toolkit	TEI	2013	[63]	■			
52	Sauron	UIST	2013	[93]	■	■		
53	PanelRama	CHI	2014	[114]	■	■		
54	XDStudio	CHI	2014	[75]	■	■	■	
55	XDKinect	EICS	2014	[74]	■	■		■
56	PolyChrome	ITS/ISS	2014	[3]	■		■	
57	PaperPulse	CHI	2015	[88]	■	■		
58	WatchConnect	CHI	2015	[43]	■			■
59	Weave	CHI	2015	[17]	■	■	■	
60	SoD Toolkit	ITS/ISS	2015	[96]	■			■
61	C4	TEI	2015	[51]	■	■	■	
62	Makers' Marks	UIST	2015	[94]	■			
63	Physikit	CHI	2016	[42]		■		
64	Retrofab	CHI	2016	[87]	■	■		
65	Let Your Body Move Toolkit	MobileHCI	2016	[84]	■	■		
66	CircuitStack	UIST	2016	[104]	■	■	■	
67	EagleSense	CHI	2017	[112]	■		■	
68	Pineal	CHI	2017	[54]	■			

"Evaluation Strategies for HCI Toolkit Research" David Ledo et al. [ACM CHI 2018]

Academic papers: ways to read them

- Focus on **introduction** and **related work** to get to know the community
- Focus on **method**, **evaluation**, and **discussion** to develop your project ideas
- Focus on the overall structure and copy it (not the content) to write your paper.

How to find “right” community

- Read many papers
- **Listen to “personal” talks**
- Sometimes explore different disciplines

Listen to “personal” talks

Once you find people of interest,

- Listen to their talks (these days, there are often online archives!)
- Preferably those for some sort of generic “awards” or at least those that span multiple projects, so that you can hear their “personal” experience in the community
- Of course, it’s a good idea to see them in person at academic events, or even sending a fan letter! (They like it, I promise)

How to find “right” community

- Read many papers
- Listen to “personal” talks
- **Sometimes explore different disciplines**

Different discipline, different culture

- CHI (SIGCHI)
- SPLASH (SIGPLAN)
- SIGGRAPH Asia (SIGGRAPH)
- Society for Animation Studies Annual Conference

Upcoming Deadlines

All times are in Anywhere on Earth (AoE) time zone.

Submission **September 12, 2024**
Notification **January 16, 2025**

Welcome to CHI 2025!

The ACM (Association of Computing Machinery) CHI conference on Human Factors in Computing Systems is the premier international conference of Human-Computer Interaction.

CHI takes place in Yokohama, Japan, at the PACIFICO Yokohama from 26 April to 1 May 2025, while also

Conference Program submissions are OPEN. **SUBMIT NOW!**

3 - 6 December 2024 | Tokyo International Forum, Japan | 日本語 | #SIGGRAPHAsia | #SIGGRAPHAsia2024

SIGGRAPH ASIA 2024 東京 TOKYO

About The Event | Submit Your Work | Exhibit or Sponsor | For the Press | Plan To Attend

QUICK LINKS | SUBMIT NOW

SIGGRAPH Asia 2024

Conference | 3 - 6 December 2024
Exhibition | 4 - 6 December 2024

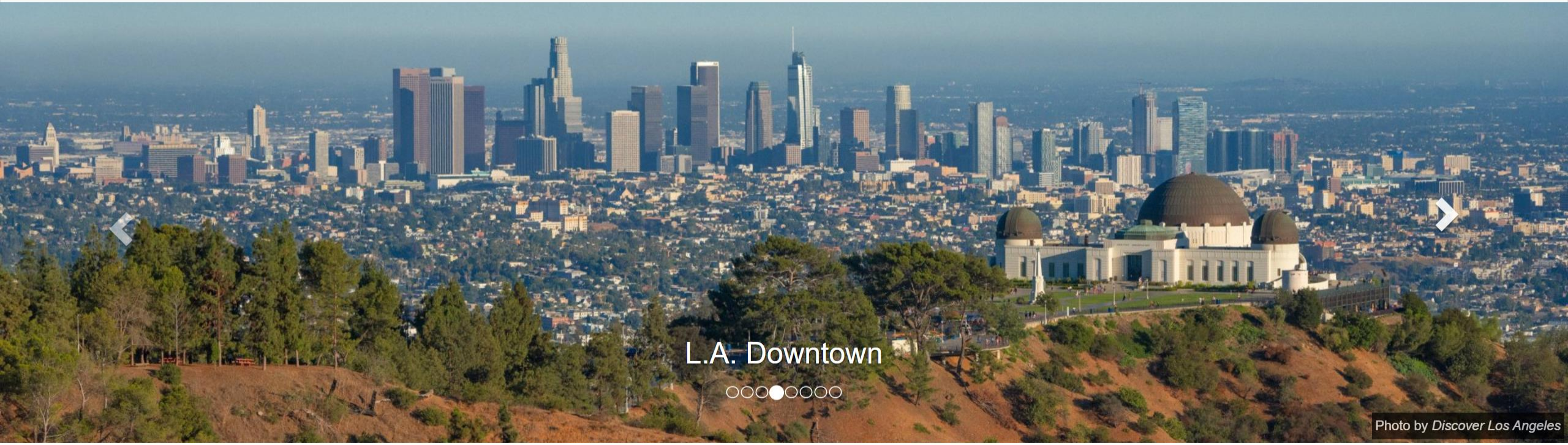
TOKYO INTERNATIONAL FORUM, JAPAN

The 17th ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia

Sun 20 - Fri 25 October 2024
Pasadena, California, United States

SPLASH PASADENA 2024

Attending Tracks Organization Search Series Sign in Sign up



2024/6/19

#non_research_tips #情報科学研究補助技法

Supporters 34

This year's theme 'The Animated Environment' will explore all aspects of the animated, with a special emphasis on

Get involved in community

Research community

Get involved in community

- **International conferences**
- Paper reading seminars
- Small workshops
- Research internships

International conferences: how to enjoy

- **Prepare well**
- Get out of comfort zone
- Submit something
- Avoid crowds and look for hidden gems

International conferences: how to enjoy

Prepare well

- Is your portfolio website ready? (will be covered next week)
- Have you skimmed the program?
- Have you checked the first and last authors of the papers you are interested in?
- Have you looked for session chairs who you want to contact?

International conferences: how to enjoy

- Prepare well
- **Get out of comfort zone**
- Submit something
- Avoid crowds and look for hidden gems

International conferences: how to enjoy

Get out of comfort zone

- Be open-minded
- Ask questions
- Try hard to find new research interests
- Don’t have breakfast/lunch/dinner with your lab mates

See also:
https://x.com/_xiang_chen_/status/1649645915333074944

International conferences: how to enjoy

- Prepare well
- Get out of comfort zone
- **Submit something**
- Avoid crowds and look for hidden gems

Student Design Competition [1/3]

The SDC poses **a real-world challenge** and demands that **teams of students** use **a myriad of approaches** (design research, brainstorming, prototyping, implementation, and evaluation, for starters) to develop their submissions. Each year, this competition has received approximately 60 submissions from 15 countries.

… At the Student Design Competition, we ask you to contribute to **one (or several) of the 17 Sustainable Development Goals** identified by the United Nations.

… Teams must consist of **at least two and no more than five** students.

Student Design Competition [2/3]

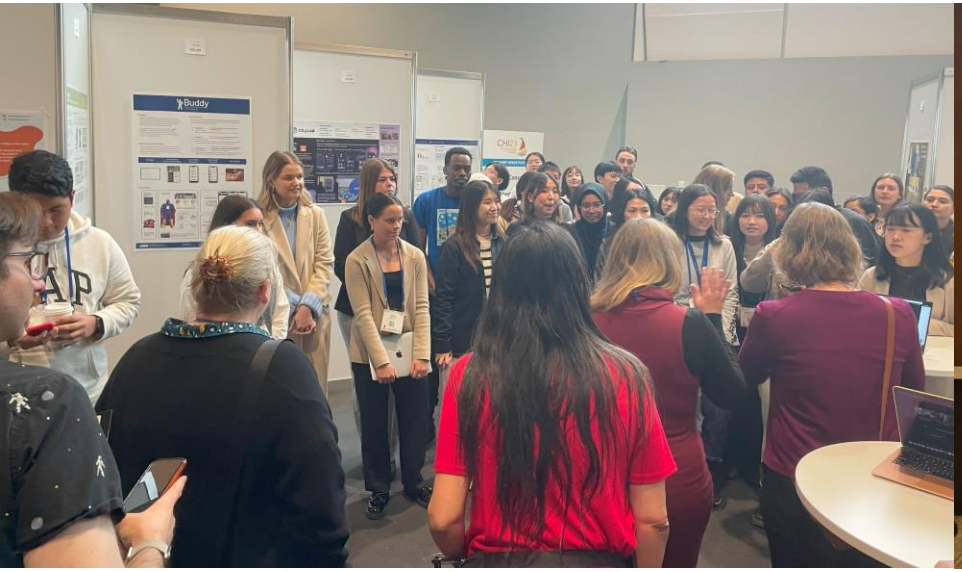
- Round 1: Paper, Poster, and Video submission (online)
- Round 2: Poster presentation (onsite, **16** teams)
- Round 3: Final presentation (onsite, **4** teams)

Competition Reviewers and Judges

Koya Narumi, Jun Kato, Pedro Lopes (University of Chicago, USA), Wendy Mackay (Inria & Université Paris Saclay, France), Elizabeth Churchill (Google, USA), Ellen Do (Atlas, University of Colorado Boulder, USA), ...

Student Design Competition [3/3]

- Round 2: Poster presentation (onsite, **16** teams)
- Round 3: Final presentation (onsite, **4** teams)
- Award ceremony (CHI Closing Plenary)



CHI 2021 | Student Research Competition

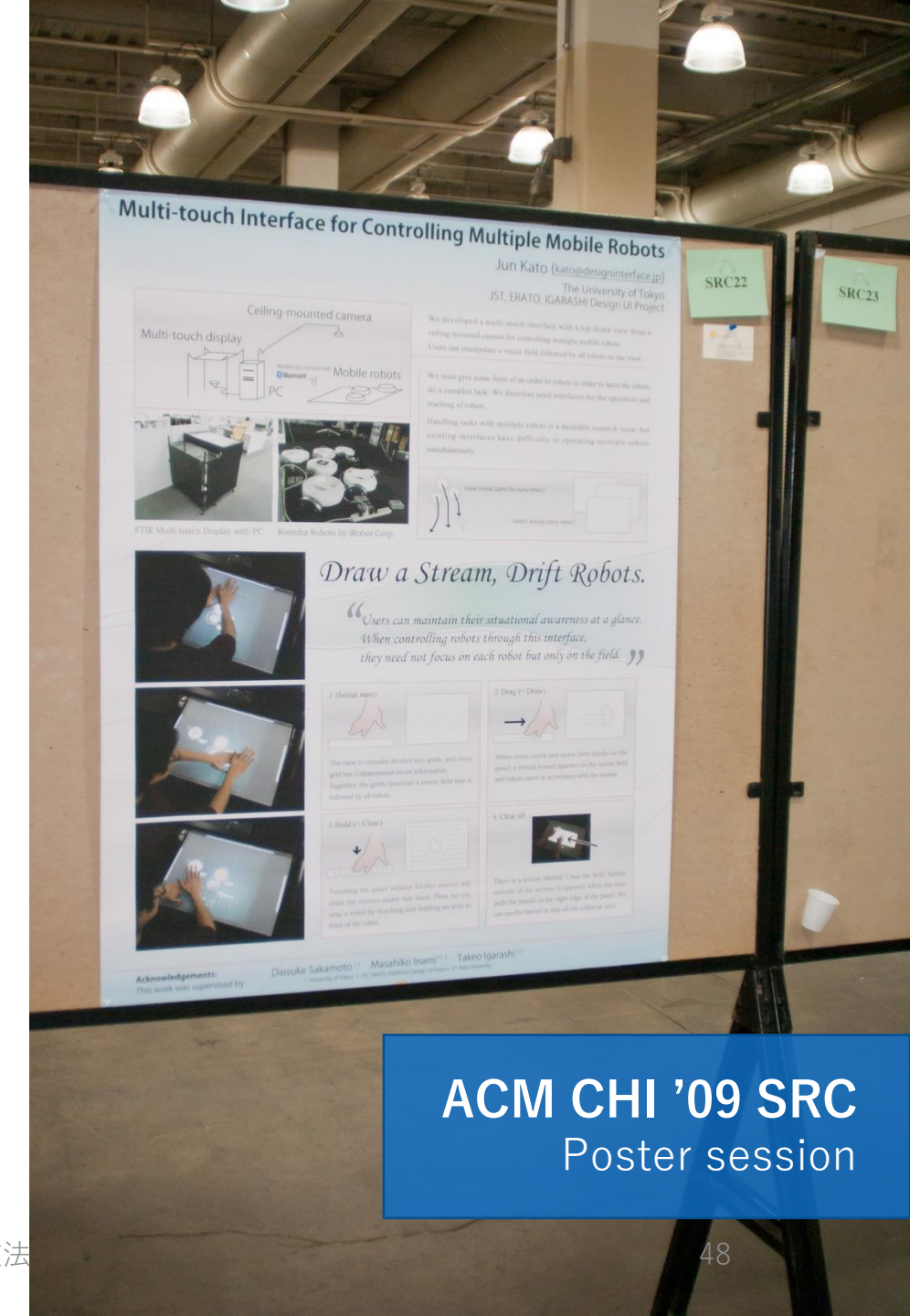
Student Research Competition goals

- **To give students opportunities**
  - to share their research ideas and results at CHI in a special forum
  - to meet with and interact with CHI attendees to share ideas, gain new insights, and understand possible practical applications
  - to sharpen their communication skills
- **To provide detailed feedback** to students from a panel of distinguished judges from industry and academia
- **To recognize and reward** outstanding student research

https://chi2021.acm.org/for-authors/students/student-research-competition

Student Research Competition rounds

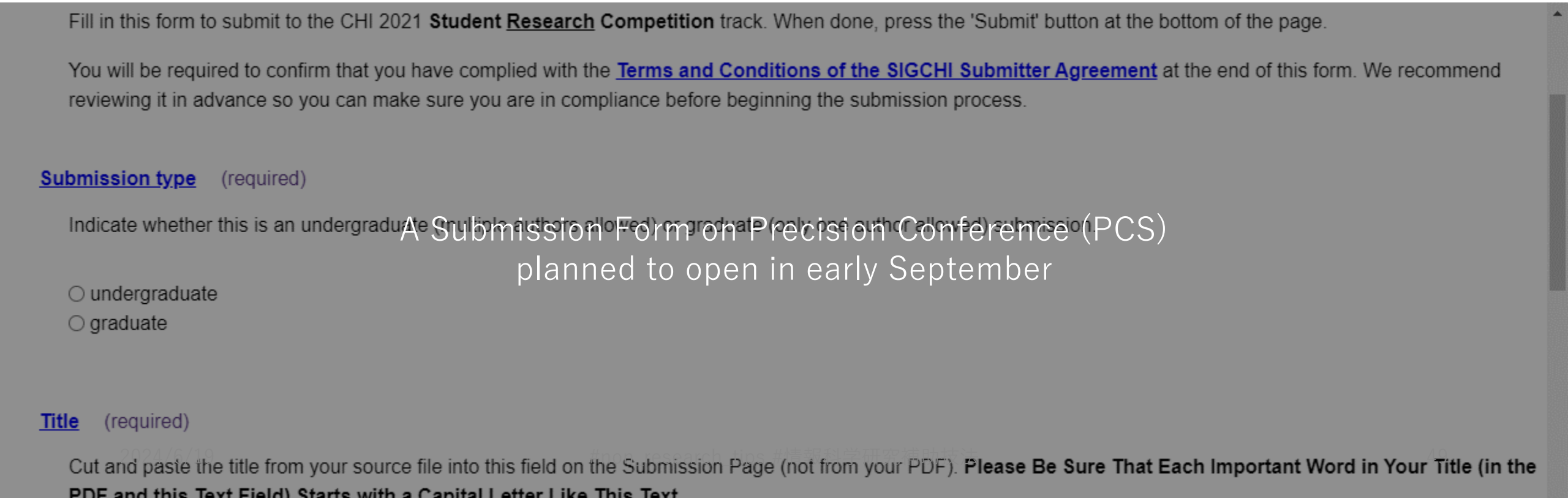
1. Submit your work online
2. Present your poster
3. Present your work
4. Winners announced during the plenary
5. Compete in the Grand Finals
6. Join the Annual ACM Awards Banquet



ACM CHI '09 SRC
Poster session

SRC 1st round
Submit your work online

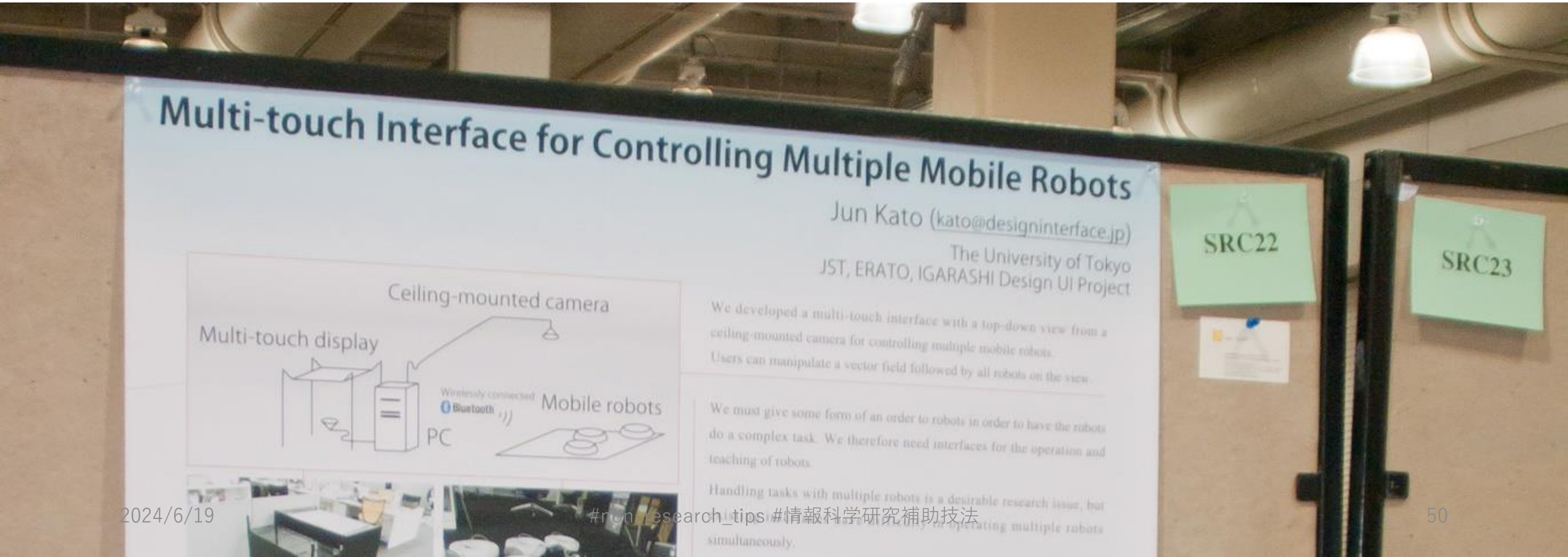
- Login early to check out the submission form!
- Prepare and submit a paper and poster



A Submission Form on Precision Conference (PCS)
planned to open in early September

SRC 2nd round
Present your poster at the conference

Juries will come and listen to you in front of the poster



SRC 3rd round

Present your work at the conference

Just like a paper session, SRC is assigned a dedicated room

International conferences: how to enjoy

- Prepare well
- Get out of comfort zone
- Submit something
- **Avoid crowds and look for hidden gems**

Special Interest Group [1/3]

Special Interest Groups (SIGs) enable conference attendees sharing a common interest to **meet informally for 75 minutes** of facilitated discussion during a scheduled session at the conference. SIGs offer excellent opportunities for dialog and deliberation on a specific topic. The conference provides each SIG with meeting space and advertises SIG meetings to the rest of the conference in the Extended Abstracts and Conference Program.

… While not strictly required, we prefer that proposals be **authored by a minimum of two individuals** representing at least two different organizations.

Special Interest Group [2/3]

We consider the following criteria, in descending order of priority:

- **Appeal to the community:** Is the topic both timely and of wide enough appeal to attract a significant audience? At the same time, is the topic sufficiently focused to allow for productive discussion during the SIG meeting? Too narrow, and the SIG might attract too few people; too broad, and it is difficult for progress to be made in the relatively short duration of a SIG.
- **Format:** Is the proposed format conducive to discussion and shared insight? Will it be possible to achieve its aims? SIGs are not workshops, nor project showcases, nor tutorials.
- **Diversity of perspective:** It helps to be able to show that the SIG will be able to encompass a wide perspective, and that the organizers can accommodate and facilitate discussion across this breadth. Places to show this are in the description of the intended community, the assumed attendee background, and the home institutions and disciplines of the organizers.
- **Continuity:** Does the SIG support the development of a longer term interest group, for example follow-on SIGs or other types of contributions at subsequent CHI and other conferences, or a SIGCHI Community? If the topic is a very recent or new one, or a revival of an old topic, then arguments will need to be made, to demonstrate that it is a topic that will persist, rather than simply being this year's fashion. If the topic is a continuation of previous SIG(s), then it is necessary to present the latest developments of the topic and their projection into the future.

Special Interest Group [3/3]

- Room capacity ≃ 100 people
- Aim: discuss important topics in recent creativity support research
  show presence as a community / find missing perspectives / consider next steps
- Structure: organizer presentation + subgroup activity + summary report

Get involved in community

- International conferences
- **Paper reading seminars**
- Small workshops
- Research internships

Paper reading seminars

CHI勉強会

Getting to know all CHI Papers in a day

SIGGRAPH (Asia) 勉強会

Getting to know all SIGGRAPH (Asia) papers in a day

cvpaper.challenge

Reading all CVPR papers collaboratively

Jun Kato/加藤 淳
Media Interaction Group, AIST

Yuki Koyama/小山 裕己
Media Interaction Group, AIST

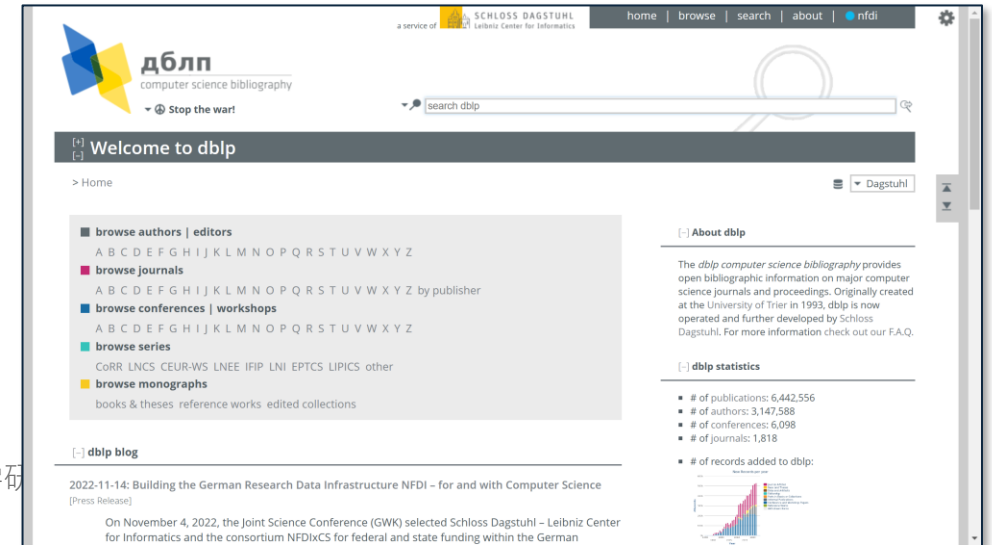
Hirokatsu Kataoka/片岡 裕雄
Computer Vision Research Team, AIST

Get involved in community

- International conferences
- Paper reading seminars
- **Small workshops**
- Research internships

Dagstuhl Seminar

- A meeting where ten to thirty researchers from all over the world discuss in a secluded environment, in an old castle in a remote countryside, isolated from the outside world
- Lots of opportunities for interaction (hiking trails, gardens, tennis courts, board games, wine cellers, etc.)



Shonan meeting

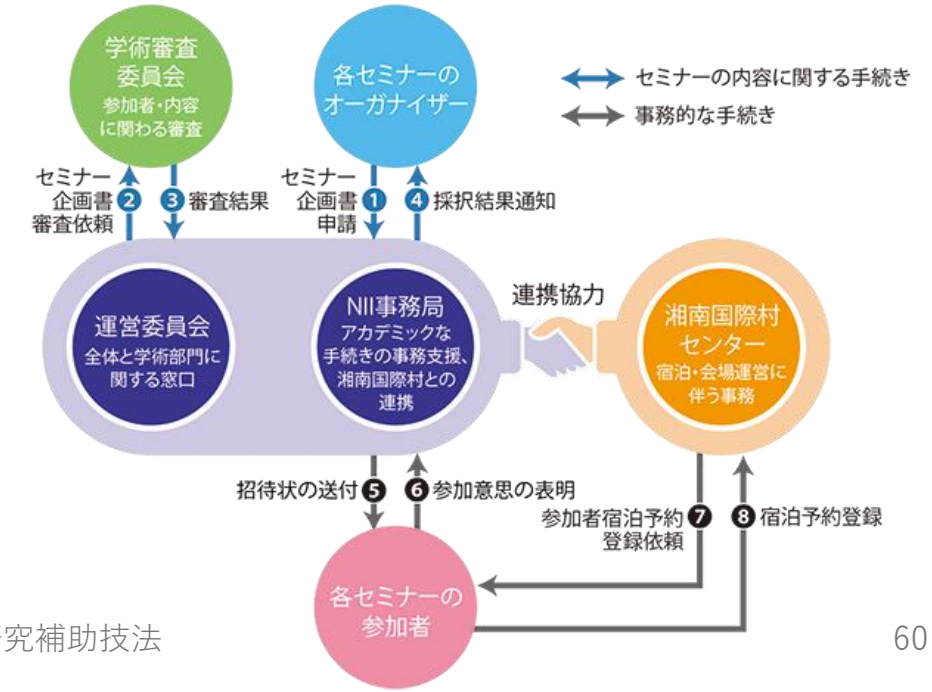
- Modeled after Dagstuhl Seminar
- Researchers apply for seminar plans, NII handles office work

NIIは、「NII湘南会議」を2011年2月にスタートしました。

NII湘南会議はアジアにおける最初のダグストゥール*形式のセミナーとして開催され、情報学の難問を解決することを目標に、世界トップクラスの研究者が集まり、情報学分野における課題について合宿形式で集中的に議論します。

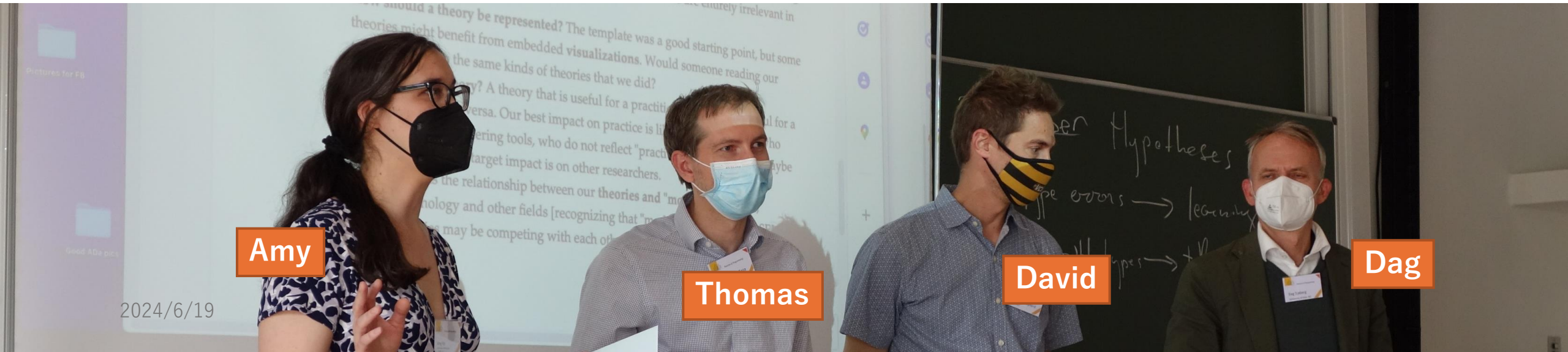
本会議開催にあたっては、神奈川県と協定を結び、連携・協力して実施しています。

開催場所である「湘南国際村センター」は、成田空港および羽田空港からのアクセスもよく、自然豊かな場所に立地しており、研



Dagstuhl Seminar #22231
Theories of Programming

- 28 researchers from Human-Computer Interaction, Software Engineering, and Computer Science Education
- HCI/CSE researcher Amy Ko and SE/HCI researcher Thomas LaToza co-proposed, HCI/CSE/SE researcher David Shepherd and SE researcher Dag Sjøberg joined later



Dagstuhl Seminar #22231
Theories of Programming

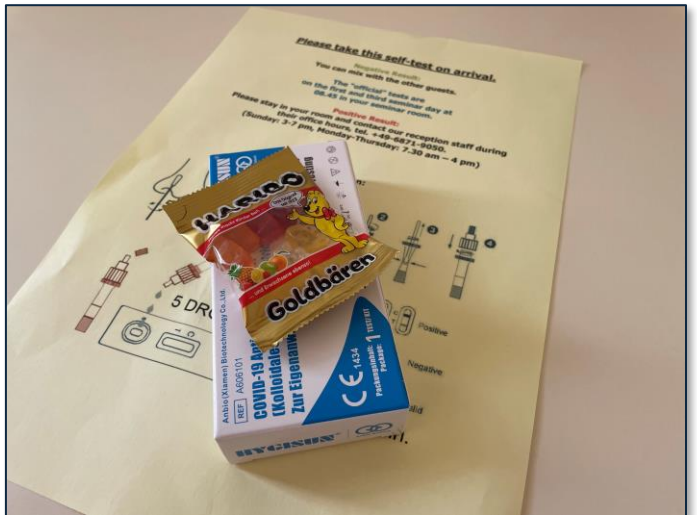
- COVID-19 postponement from summer 2020 to 2022 (originally #20351, happened as #22231)
- ICSE 2022 Birds of Feather as a precursor event

Dagstuhl Seminar #22231
3.5-days workshop

- **June 7 (Tue)** welcome, what is theory, describing theories, critiquing theories
- **June 8 (Wed)** brainstorming unexplained programming phenomena, sketching theories, getting feedback on theories, and refining theories
- **June 9 (Thu)** presenting theory sketches, discussing ways of sharing theories, and skeptically examining whether developing theories of programming is really worth the time
- **June 10 (Fri)** reflecting on takeaways and departure

Dagstuhl Seminar #22231
First day

- 2 hours from the airport, arrived at St. Wendl by train
- Luckily got a taxi at the station with two other attendees
- Already had discussion at a dinner table – Dagstuhl format is suitable for book preparation and open discussion for unanswered questions.



Wednesday - Unexplained Phenomena Brainstorm

ファイル 編集 表示 挿入 表示形式 データ ツール 拡張機能 ヘルプ 最終編集: 6月8日（Thomas LaToza さん）

共有

A1 Phenomenon

Phenomenon	Interested person	Interested person	Interested person	Interested person	Interested person	Interested person	Interested person	Interested person				
Software Engineering	Moritz Beller											
People make mistakes when programming (inserting bugs).	Michael Coblenz	Amy	Francisco Servant					Justin Smith				
Novices become experts	Dag Sjøberg	Katie Stolee	Gunnar	Francisco Servant	Sebastian Baltes	Brittany JM	Gail Murphy	Jon Bell	Thomas Fritz	Scott		
Many statically-typed functional programmers have ADHD or are otherwise neurodivergent	Slim Lim	Andrew Head	Justin Lubin									
People choose individual work over team work												
People don't know when they have tested their code enough	Jon Bell	Andrew Head	Moritz Beller	Andreas Zeller	Francisco Servant	BrittanyJM	Sebastian Baltes					
What makes concrete examples good/effective	Jon Bell	Andrew Head	Moritz Beller	Jun Kato	Michael Coblenz	Hila Peleg	Jeffrey Stylos	Sebastian Baltes	Scott	Lutz Prechelt		
Supporting programmers starting with concrete examples	David C. Shepherd	Andrew Head	Thomas LaToza	Jun Kato	Scott							
Why do most organizations appear to be bad at anticipating the cost of taking on some particular technical debt?												
Why are some programmers better at generating hypotheses for debugging? Beginners exploring the space of hypotheses is much harder	Jon Bell	Thomas LaToza	Michael Coblenz	Hila Peleg	Andreas Zeller	BrittanyJM	Scott					
Why are some programmers able to perform "psychic debugging" (just guess where the bug is correctly)	Moritz Beller	Hila Peleg	Justin Lubin									
Which static analysis is "just enough" to be useful and not be ignored?	Emma Söderberg	Dag Sjøberg	Katie Stolee	Francisco Servant	Sebastian Baltes			Justin Smith				
Early design choices (type, data schema) and their downstream effects												
The role of domain knowledge in software design	Sebastian Baltes											
People use static analysis tools to guide their problem-solving processes.	Justin Lubin	Slim Lim	Thomas LaToza	Emma Söderberg		BrittanyJM		Justin Smith				
Some people build cults around languages; others are uninterested in even adopting those	Andrew Head	Jun Kato	Emma Söderberg	Sebastian Baltes				Justin Smith				
Tooling wars. [editor wars...]	Andrew Head	Emma Söderberg				BrittanyJM		Justin Smith				
Ergonomics of languages												
Impact of identifier names on {comprehension, testing, mental models, etc} given diverse cultural and lingustic backgrounds	Slim Lim	Jun Kato	Dag Sjøberg	Francisco Servant	David C. Shepherd							
Programmers gain skills in different ways and at different speeds	Gail Murphy	Moritz Beller	Emma Söderberg	Dag Sjøberg	Gunnar	BrittanyJM	Francisco Servant	Justin Smith	Sebastian Baltes	Thomas Fritz	Scott	Tudor Girba
Attention to quality improves speed of development	Moritz Beller	Dag Sjøberg	Lutz Prechelt									
Distributed teams onboard slower	Francisco Servant											
Data-driven programming vs "logic-driven" programming	Benji Xie	Jun Kato	Hila Peleg	Amy				Justin Smith				
Coordination suffers in remote work	Thomas Fritz	Francisco Servant										
Developers overestimate the similarity between code snippets	Katie Stolee											
Some developers refuse to read documentation and rather try + break things; others insist on reading documentation + full understanding before beginning	Andrew Head	Jun Kato	Michael Coblenz	Emma Söderberg	Jeffrey Stylos	Hila Peleg	Lutz Prechelt					
____ as code [likely in a mono-repo]												
Programmers cannot accurately estimate required effort for a task	Gail Murphy	Michael Coblenz	Gunnar	Francisco Servant	Sebastian Baltes			Justin Smith				
Developers stop short of completely updating cloned code												
Data scientists are (not) end-user programmers	Jon Bell	Benji Xie	Jun Kato					Justin Smith				
Developers spend a lot of time navigating information	Jon Bell	David C	Francisco	Sebastian		Brittany JM		Justin Smith				

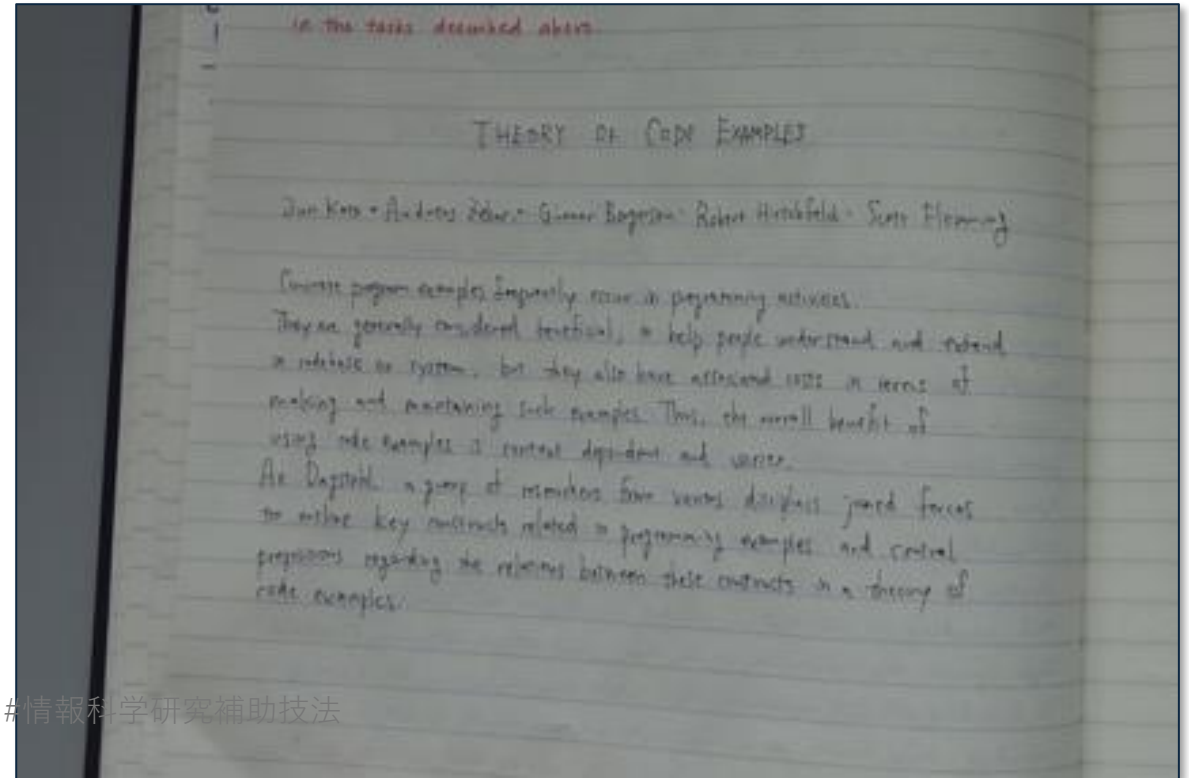
2024/6/19

3 Unexplained Phenomena | Proposed Groups | Final Group | Brainstorm for Huma

データ探索

Dagstuhl Seminar #22231
Last day

- Presentations from subgroups
- Insights from subgroups written on a notebook



Dagstuhl Seminar #22231
Post-seminar effect

LIVE 2022 workshop call for paper was modified to reflect discussions

demonstrations of novel programming systems, experience reports, theories that propose and verify generalized principles, literature reviews, and position papers. Topics of interest include:

- live programming environments
- visual programming
- structure-aware editors
- advances in REPLs, notebooks, and playgrounds
- programming with typed holes, interactive programming
- programming by example/demonstration
- bidirectional programming
- debugging and execution visualization techniques
- language learning environments
- [illegible]
- theoretical frameworks for characterizing technical or experiential properties of live programming

LIVE provides a forum where early-stage work will receive constructive criticism. Submissions may be short papers, web essays with embedded videos, or demo videos. A written 250-word abstract is required for all submissions. Videos should be up to 20 minutes long, and papers up to 6 pages long. Use concrete examples to explain your ideas. Presentations of programming systems should take care to situate the work within the history of such tools.

2024/6/19

While LIVE welcomes early work and exploratory work, authors may optionally choose to have their work considered for

Thu 1 Sep 2022
Submission Deadline

Submission Link

https://live22.hotcrp.com/paper/new

Organizing Committee

Jun Kato
National Institute of Advanced Industrial Science and Technology (AIST)
Japan

Sam Lau
University of California at San Diego
United States

Get involved in community

- International conferences
- Paper reading seminars
- Small workshops
- **Research internships**

Internships I've experienced

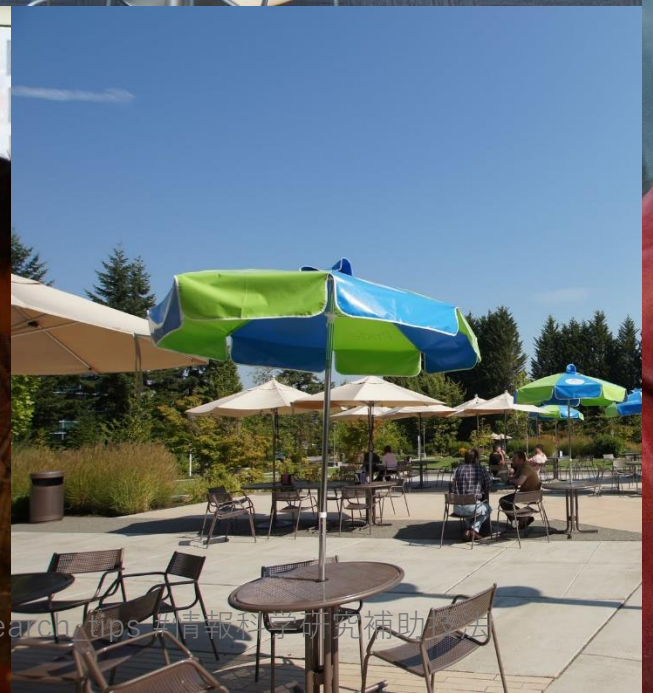
- **Microsoft** Development Japan
  - 2009/8-9 Software Engineer Intern
- University of Tokyo Edge Capital (UTEC)
  - 2010/7-8 Summer Intern
- **Microsoft** Research Asia
  - 2012/1-4 Research Intern (HCI Group)
- **Microsoft** Research
  - 2012/6-9 Research Intern (RiSE Group)
- **Adobe** Creative Technologies Lab, Seattle
  - 2013/8-11 Research Intern

Internship in companies

- Large companies **publishing academic papers** often allow you to include the project in your thesis/dissertation
  - **Microsoft**, **Adobe**, Autodesk, Disney, etc. (as of 2013)
- You will meet many talented **people**
  - Not only researchers but also **devs** and **interns**
- You should **not** work primarily for money
  - They give you rich resources including people, machines, devices, software and **almost** all the other things you'll need for doing a good research
  - While, in fact, they pay **pretty well**…

Home and Workplace in Beijing and Redmond

Workplace in Beijing and Redmond



How to find an internship

- Apply for **fellowship/scholarship**
  - Microsoft Research Asia Fellowship
- Get introduced by **someone**
  - Your supervisor
  - People working at Microsoft University Relations
- Ask **researchers**
  - Meet researchers at international conferences, appeal your enthusiasm and sell yourself!

When to go to an internship

- Generally speaking, **summer** is the hot season
- During Masters course is **the best**
- 1st and 2nd year of PhD course are **nice**
- 3rd year of PhD (before writing the dissertation) is **no good**

What to do in your internship

- They usually give you **three** months
- For the **first** month, discuss with your mentor and fix the research problem you're tackling
  - Kinect + IDE = IDE for Interactive Computer Vision
  - Programming + UI = Live Programming of GUI
  - (censored) + IDE = IDE for (censored)
- For the **second** month, prototype your system
- For the **third** month, wrap up your work

Internship at Microsoft Research Asia

Internship at Microsoft Research Redmond

Internship at Adobe Seattle

What to do after your internship

- You're still under the **NDA**
  - Unless you published the result
- **Write paper**
  - Three months are often too short…
- **Apply for patents**
  - You usually only need to sign some documents
- **Discuss/advise tech transfer**
  - Tech transfer takes longer time than research

Research community: agenda

- Why “community”?
- Community basics
- How to find “right” community
- Get involved in community

Research community