

## SketCHI 4.0: Hands-On Special Interest Group on Remote Sketching in HCI

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Fig. 1. Working from home is the new normal – how has this affected our sketching practice and research? (Sketch by M. Sturdee)

Sketching is a physical activity: moving a stylus to create marks on paper or screen, from mind to visual output. But sketching can also translate to the virtual space. When we sketch collaboratively, we look for cues, exchange ideas, and annotate work via mark-making or comment. The digital medium has evolved to explore the potentials of sketching online, and this Special Interest Group aims to bring together researchers and practitioners interested in Sketching in HCI to explore the new virtual landscape of sketching, popularised by the constraints of the current world situation. We invite you to join our virtual group, discuss and share sketches, query the existing state-of-the-art, and help pave the way for the development of this medium in the virtual space with your imagery and ideation.

CCS Concepts: • **Human-centered computing** → **Human computer interaction (HCI)**.

Additional Key Words and Phrases: sketching, visualisation, collaboration, drawing, visual thinking

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## 1 INTRODUCTION

Sketching is more than just a simple tool, it allows us to collect our thoughts, connect with ourselves, and create shareable communications – even more vital as we strive to connect with our fellow people at great distance. Such mark-making has ancient roots, and persists through the ages – the digital revolution has only made engaging visually via sketching easier, with tools to create (e.g. *Procreate*, *Sketchable*), tools to teach [6], and outputs such as social media (e.g. *Twitter*, *Instagram*) or platforms such as *Patreon* ([www.patreon.com](http://www.patreon.com)) and online stores to help make a living through these expressions.

The *Sketching in HCI* Special Interest Group aims to bring together academics, students and practitioners to discuss and explore sketching as a medium for collaboration, reflection, ideation, communication and education. In this 4th edition, we propose a virtual sketching meet-up, exploring our personal and work spaces – physical and virtual, whilst engaging in discussion and producing imagery.

Throughout the past few years, we have had the opportunity to take advantage of advances in digital sketching, and online collaborations, and this year – more than ever, we need to embrace these digital means. We invite our community to explore and critique the methods currently available to us, to imagine how these tools could develop in the future, for the benefit of those in our field and beyond.

This year, the way we sketch together online should not be seen as a limitation, but as an opportunity to explore the current mediums for sketching online and in remote collaboration – and we also propose to run not one, but two sessions: drawing upon our SIG on sketching HCI in education from CHI2020 [5] and linking it to the new SIG which focuses on remote sketching practices. This is the fourth edition of the *Sketching in HCI* SIG series, previous editions have focused on introducing and extending the concept and value of sketching in our domain [1, 2], and now we aim to examine the changing world through our imagery.

## 2 SKETCHI SIG #1 & #2

The first Special Interest Group in *Sketching in HCI* [1] brought together those with an interest in sketching in HCI, and we created and shared sketches whilst roaming around the conference site and engaging with the topic – discussion and exploring the significance, pitfalls and benefits of sketching practice in HCI. We also formed a working group after the event (<http://SketchingHCI.slack.com>) to continue our discussions. Further, alongside our successful sketching course (also returning for 2021) we wrote a feature piece for *ACM Interactions* [3] and also a featured blog was published in the same issue [4].

The second *Sketching in HCI* SIG [2] was challenge focused – based on engagement and acceptance of this skill in the HCI community. This edition not only continued the new tradition of location based sketching and discussion, but further brought the participants together to brainstorm and co-create our 'Manifesto for Sketching in HCI', which was shared both with the working group, and developed for publication. Following this SIG, one of our members also published a second sketching in HCI blog post from an industry perspective <http://interactions.acm.org/blog/view/drawn-together-the-role-of-sketching-in-product-design>.

## 3 SKETCHI SIG #3

The global pandemic had a major impact on in person events in 2020, and as such, the planned hands-on sketching special interest group did not go ahead. This edition was to have focused upon the most popular discussion topic from SIGs #1 and #2 – sketching in HCI *education*. Our previous SIGs identified that adding creative practices such



Fig. 2. Our research and work has changed during the past year, now we often work from hybrid home/work environments (K. Spiel).

as sketching, design thinking and visualisation into our computer science education is of benefit to our students and continuing learners. By collaborating on an example education curricula for sketching in HCI, we aim to create a shareable body of knowledge in this domain, to be distributed online to those working in our field.

As SketCHI #3 did not take place in 2020, we aim to run this edition as an optional extra event, inviting previous and current authors to engage, as well as those in our community of Sketching in HCI researchers and practitioners. We also especially invite newcomers to both sketching and its applications in HCI.

#### 4 SKETCHI SIG #4

The purpose of the 4th Sketching in HCI Special Interest Group is to explore the remote applications of sketching, the programs we use, the images we create, and the ways in which sketching supports remote collaboration and communication. The main goal for this SIG is to outline the benefits and pitfalls of current sketching-based and supporting applications, and form a diverse research workgroup with a focus on exploring existing and new interfaces for remote sketching and collaboration. Finally, this SIG is an unparalleled opportunity to share knowledge as we have all had to adjust to an online approach in our work, thus will have had different experiences, so we propose for attendees to create *sketch-narratives* of their experiences with a view to creating a pictorial paper at an associated ACM conference or journal such as the *The Comics Grid: Journal of Comics Scholarship*. Please note: SketCHI #4 will also take place alongside the accepted CHI2021 course *Let's Sketch! A Hands-on Introductory Course on Sketching in HCI*.

#### 5 PRESENTATION

The SIG will be hosted in an online meeting environment and real-time online whiteboard using a similar presentation technique to SketCHI SIG 3.0 (e.g., using a *Miro* prototype) to make the most of the virtual format. Attendees will be given prior notice of the intended formats to give them time to download appropriate software and/or sign up to services where needed. Attendees will be encouraged to use a sketchnoting approach to make the most of the time allowed (e.g. images might include icons and annotations, see Figure 3). The running time will be the standard SIG time of 90 minutes. The sketching SIG location will be at the Yokohama Sankeien Garden in Japan (hosted by Google Arts and Culture <https://artsandculture.google.com/partner/sankei-en?hl=en>), to reflect the original venue for CHI2021.

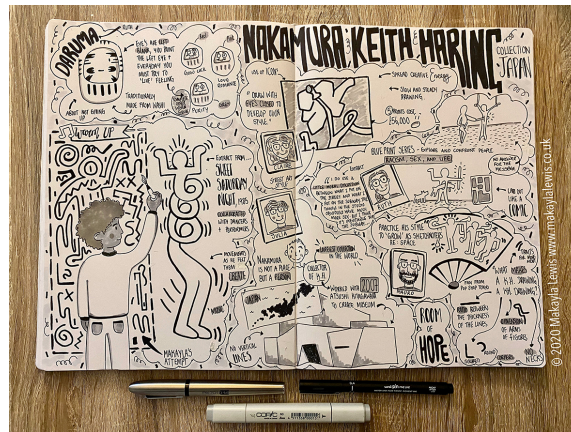


Fig. 3. Sketchnote by M. Lewis from <http://SketchnoteHangout.com> virtual visit to the Nakamura Keith Haring collection in Japan

## 6 AUDIENCE

SketCHI 4.0 will be suitable to individuals from industry and academia that have an interest in or have used sketches to explore or emphasize HCI research directly in practice or on a reflective level. there are no pre-requisites for skill – attendees will be encouraged to draw “ideas not art” and share these ideas with their peers.

## 7 SCHEDULE

- (1) Main online meeting room (5 minutes): Introduction of the SketCHI 4.0 SIG background/goal followed by formation of groups, 4-6 attendees, depending on numbers. Each group will be facilitated by an author. Introduction to Sankeien Garden, Yokohama on Google Arts and Culture.
- (2) Breakout Room #1 (10 minutes): Groups move into breakout rooms and take part in an icebreaker sketching exercise – sketch your environment (Figures 1 & 2)– i.e. mapping their real life setup including both physical and digital tools using an annotation technique. Attendees, in their groups, will be asked to introduce themselves: name, institution, research interests, and how they use sketching in their HCI research.
- (3) Main online meeting room (10 minutes): Attendees come together and are introduced to the main real-time online whiteboard for collaboration, after which they will share will be asked to share their sketches with the group (show and tell via real-time online whiteboard). One of the SIG authors will facilitate and capture the discussion using virtual post-it notes.
- (4) Breakout Room #2 (15 minutes): Groups are re-allocated and attendees are invited to enter the garden, then each find and sketch a different feature in the garden whilst discussing how they have already been using sketching online in their research and/or educational practice.
- (5) Main online meeting room & real-time online whiteboard (10 minutes): Attendees post their sketches in the allocated real-time online whiteboard space, either by uploading digital files or photographing their physical sketches, followed by a short discussion of the current ways in which we use sketching online and in remote collaboration.

- (6) Breakout Room #3 (15 minutes): Attendees move to a second location in their groups and sketch the wider scene whilst discussing the current pitfalls and limitations of sketching and creative practice in remote, collaborative environments.
- (7) Main online meeting room & real-time online whiteboard (10 minutes): Attendees present their scenes on the allocated real-time online whiteboard space and a spokesperson from each group will summarise the discussions.
- (8) Main online meeting room & real-time online whiteboard (10 minutes): Group discussion and ideation as to how we can improve remote sketching practice and education, either by designing new remote interfaces, or by improving existing ones. Participants are invited to sketch their thoughts and ideas and present them in the allocated 'design workspace' of the real-time online whiteboard.
- (9) Main online meeting room (5 minutes): Wrap up and next steps – attendees will be invited to join a research group looking at the future of online sketch interfaces with the view to developing publishable research and funding opportunities in this space.

## 8 ATTENDEE MATERIALS

A SketCHI 4.0 online handout on a real-time online whiteboard (e.g., *Miro*) will be given at the beginning of the SIG, however sketching materials will not be provided. It is suggested attendees attend the online SIG with an A4/A5 hardback spiral sketchbook for additional sketches/to lean on; black drawing pen; 2 coloured markers or pencils (a grey to add depth, colour to highlight important areas) or if they prefer a digital tablet and pen with a simple digital drawing tool e.g., Apple iPad (Air, Pro, Mini) with Apple Pencil and *Procreate*. Authors will encourage sketching with pen/markers because mistakes cannot be erased, ensuring attendees keep sketching. We want to emphasise the process and its creative side effects instead of focusing on the ensuing result thereof.

## 9 SIG DELIVERABLES

The organizers will create a working group looking at the future of sketching in HCI for online, remote, and collaborative practice and research. This group will supplement the existing Slack channel, and be formed of attendees who wish to put together research proposals and work plans to further investigate the interests and possibilities raised by the SIG. We will also invite attendees fill in a short Google form (<http://goo.gl/forms/vva3hSSqswax3QuC2>), which will provide them with access to the existing Slack group (<http://SketchingHCI.slack.com>).

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