# The State of the (CHI)Art

Miriam Sturdee Lancaster University Lancaster, UK m.sturdee@lancaster.ac.uk

Thuong Hoang Deakin University Geelong, Australia thuong.hoang@deakin.edu.au

Pranjal Jain Swansea University Swansea, United Kingdom pranjal\_jain@live.com Makayla Lewis Kingston University London, UK M.M.Lewis@kingston.ac.uk

> Ilja Šmorgun Tallinn University Tallinn, Estonia ilja.smorgun@tlu.ee

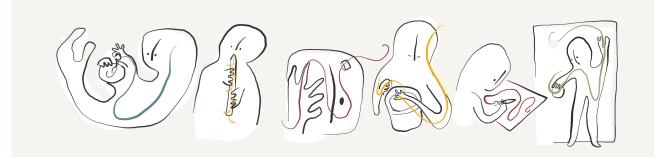
Angelika Strohmayer University of Northumbria Newcastle, United Kingdom angelika.strohmayer@northumbria.ac.uk

> Christina Wodtke Stanford University Stanford, USA cwodtke@stanford.edu

Mafalda Samuelsson-Gamboa University of Gothenburg Gothenburg, Sweden mafalda.gamboa@gu.se

> John Miers Kingston University London, UK j.miers@kingston.ac.uk

Sarah Fdili alaoui LRI Paris-Saclay, France saralaoui@lri.fr



# Figure 1: Forms and Shapes of art, digital sketch by Mafalda Samuelsson-Gamboa, 2021

# ABSTRACT

We are all researchers, practitioners, and educators – but many of us are also artists, makers, curators. Our arts practice is part of what makes up our sense of self, but also influences our interests and directions in digital and technological enquiry. There exist spaces where the traditional lives alongside the computational, or where the two are blended, no less valid in purpose or value. We seek to investigate this liminal environment, and explore the current state of art in HCI, computer science and other related fields, shifting boundaries as to what "art" is in these spaces. By bringing together

Author Pre-Print – not for distribution

©ACM, 2022. This is the author's version of the work. It is posted here by permission of ACM for your personal use. Not for redistribution. The definitive version was published in CHT'22 Extended Abstracts, April 29–May 05, 2022, New Orleans, LA, USA https://doi.org/10.1145/3491101.3503722

like-minded and creative individuals, this workshop aims to both inspire and legitimise our diverse practices, present viewpoints, create meaningful outputs, host discussions, and work toward the future of this plurality.

# **CCS CONCEPTS**

• Human-centered computing  $\rightarrow$  Human computer interaction (HCI).

# **KEYWORDS**

art, sketching, dance, photography, craft, making, sewing, painting, comics, drawing

#### **ACM Reference Format:**

Miriam Sturdee, Makayla Lewis, Mafalda Samuelsson-Gamboa, Thuong Hoang, Ilja Šmorgun, John Miers, Pranjal Jain, Angelika Strohmayer, Sarah Fdili alaoui, and Christina Wodtke. 2022. The State of the (CHI)Art. In CHI Conference on Human Factors in Computing Systems Extended Abstracts (CHI CHI '22 Extended Abstracts, April 29-May 5, 2022, New Orleans, LA, USA

'22 Extended Abstracts), April 29-May 5, 2022, New Orleans, LA, USA. ACM, New York, NY, USA, 6 pages. https://doi.org/10.1145/3491101.3503722



Figure 2: Illustration of pens, pencils and paintbrushes, pen and paper, digital colouring, Miriam Sturdee, 2021

# 1 BACKGROUND

What is the 'art' of Human-Computer Interaction (HCI), past, present, and future? As the flagship conference for HCI and interdisciplinary practice, CHI (ACM Conference on Human Factors in Computing Systems) brings together a diverse subsection of researchers, industry practitioners, educators and students. It is therefore no surprise that within our numbers exist individuals with a *plurality of practices* [14]: Those who create and employ artistry as research, hobby, reaction, self-reflection, exhibition, and that explicitly or implicitly influence their everyday HCI practice – either directly or through enhancing their well-being.

Not all of these practices fit into the conference definition of "art" within its own track, which often focuses on interactive installations and digital foundations. Some of these practices revert to traditional methods, or are created in isolation of the digital world. So when we address the state of the art - we ask – how are these other creations different from the CHI Art Track, is there space for them within our celebration of research and its presentations? Are the arts as we know them a by-product in current installations where digital is everything: Art in humanities is seen as "art" but at CHI it is often embedded or ingrained in the technology rather than representing or supporting that technology. For example, could art as a response to escaping the digital world find a place within its publications?

Art and creation are not limited to the drawn, photographic, or digital image. Art is a multitude of approaches expressed in ways that can be appreciated by different audiences. Our broad notion of what art is can be expanded to mesh with the fundamentals aims of research and scholarship in HCI. For example, could we aim to represent a human being's interpretation, emotions, relationships or experiences of a technology, and in the creation and engagement of that technology could we create art? However we create these works, the fact remains that art does not need purpose other than its own existence [1] – it does not warrant analysis, user study, conclusion, but in can invite questions, discussion, emotional response, reflection. It is these qualities that inspire us to redefine what art is, and could be at CHI and beyond. The broad aims of this workshop are therefore to:

(1) Identify and connect with like-minded, experienced, and new artists within the CHI community and beyond

- (2) Encourage the CHI community to see art as both part and existing outside of technology, and explore its value
- (3) Promote the acceptability of the arts and traditional arts practice and making as both supporting and enhancing technological enquiry in HCI
- (4) Gather a collection of representative examples of CHIart practices

## 2 ORGANIZERS

The organisers all have an active interest in the intersection of art and HCI, and are drawn from a range of career levels, interests and artistic practices. By encouraging diversity in how we view art, we hope to also encourage a range of potential participants to join us for this workshop.

*Miriam Sturdee* is a research fellow in Creative Practice in Computing at Lancaster University, specializing in investigating how sketching and the arts can support the design and development of novel technology. She also has an MFA in Visual Communication from Edinburgh College of Art and is an active illustrator, visual facilitator, and sketch artist. Her research has a particular focus on sketching for shape-changing interfaces, cybersecurity [15], as well as design fiction and alternative publishing formats [12].

Makayla Lewis is a lecturer in Computer Science (User Experience Design) at Kingston University London, researching and teaching human factors in business, cybersecurity, smart money, and AI. Makayla is an accomplished visual thinker and sketcher who organizes sketching events and courses and provides visuals for international companies and conferences such as ACM CHI & ISS. Her publications span the breadth of user experience and HCI, with notable examples being, A Tactile Visual Library to Support User Experience Storytelling [4]; Who says personas can't dance? The use of comic strips to design information security personas [6]; Are You Feeling It? The Use Of Comic Strips To Encourage Empathy in Design [5]; Makayla Lewis on The Power of Sketchnoting in UX Design (an Adobe featured blog)xd.adobe.com/ideas/perspectives/interviews/ makayla-lewis-power-sketchnoting-ux-design/ Makayla's website also hosts a wealth of resources for sketching and artistic practice makaylalewis.co.uk.

*Mafalda Gamboa* is a PhD student in Interaction Design, working with social drones and critical design. Most of her work revolves around interpreting, communicating, facilitating, and using tacit knowledge within design. Her background as an architect gives her a long history of adapting sketching and prototyping to different means and ends, from provocations to expressions of conversations with herself in research through design processes.

**Thuong Hoang** is currently an Associate Professor in Emerging Technologies at Deakin University, Australia and an Australian Research Council Discovery Early Career Researcher Award (DECRA) 2020 recipient. His research expertise focuses on designing, implementing, and evaluating interactive systems that leverages emerging virtual and augmented reality infrastructures and technologies. He applies human factors, user experience and interaction design principles to produce engaging, interactive, and novel experiences, especially in the area of public spaces, exhibitions, education and health. He has previously collaborated with the Science Gallery Melbourne, National Gallery Victoria, and the Royal Children Hospital,

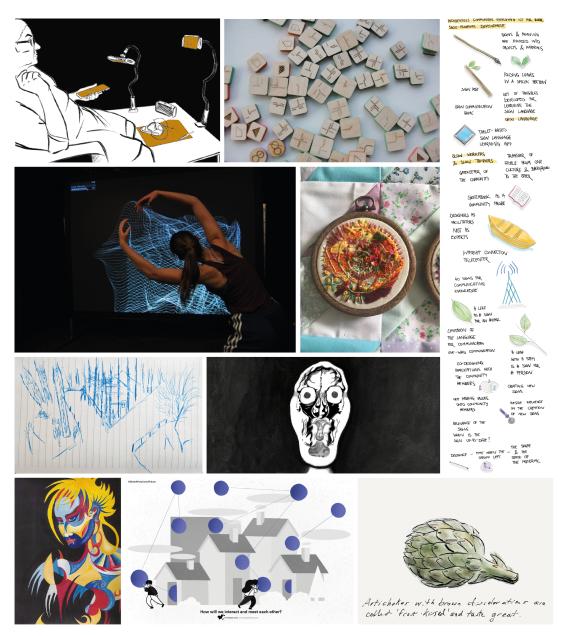


Figure 3: From top left to bottom right: 1) An online user study with a senior citizen through zoom meeting, digital illustration, Pranjal Jain, 2021; 2) Motif Tiles, wooden tiles and laser etching, Sarah Fdili Alaoui, 2014 [2]; 3) A sketch note from a lecture by Tariq Zaman on co-designing mobile technologies with indigenous communities for digitisation and preservation of indigenous knowledge in Malaysian Borneo, iPad Pro and Notes app, Ilja Šmorgun, 2019; 4) Choreoprobe, colour photograph, Sarah Fdili Alaoui, 2019 [3]; 5) Research Spiral 1 (part of a 3-piece series), cotton embroidery threads, recycled polyester threads, twine, cotton fabric, felt, Angelika Strohmayer, 2021; 6) Location Sketching at SketCHI 4.0 CHI 2021 [13], Pen on Paper, Thuong Hoang, 2021; 7) Two Pictures of my Brain (excerpt), Watercolour on Paper, John Miers, 2021 [9]; 8) Lady Washing Her Face, Gouache on board, Miriam Sturdee, 2001; 9) How will we interact and meet each other, #SketchCOVIDfutures a probe for discussion, Digital illustration, Makayla Lewis, 2020 [10]; 10) Frost Kissed, 53's Paper, Christina Wodtke, 2019. ©All artworks in this montage belong to the authors and are reproduced with permission.

and has participated in events as part of Melbourne Knowledge Week and SummerSalt festival.

*John Miers* is lecturer in illustration at Kingston School of Art and associate lecturer at Central Saint Martins. Notable works include his publication on the comics medium as drawing practice [7]. His recent comics work deals with his experience of living with multiple sclerosis. His first comic on this topic, So I Guess My Body Pretty Much Hates Me Now [8], was produced during a postdoctoral residency in University of the Arts London's Archives and Special Collections Centre at London College of Communication, and voted "Best One-Shot" in the 2020 Broken Frontier awards.

*Ilja Šmorgun* is an Associate Professor of Interaction Design at Tallinn University's School of Digital Technologies and manages the Master's programme in Human-Computer Interaction. He holds a PhD in Information Society Technologies from Tallinn University. His research focuses on understanding how we construct and interact with on and around the body artefact ecologies. Since 2021 he is leading the work package on Human-Computer Interaction in CHIST-ERA SEEDS project. Before joining Tallinn University fulltime, Ilja worked as a usability specialist at the Estonian Information System's Authority, where he was designing public e-services for the Estonian State Portal eesti.ee, as well as conducting usability and accessibility evaluation.

**Pranjal Jain** is a design researcher and co-founder at theUXWhale, India. Passionate about community building. In particular, he has been actively contributing to Srishti SIGCHI Chapter, India HCI and HCI4SouthAsia community. His research interest lies in designing ethical data practices through speculative and critical design in sociotechnical systems. He critiques how sociotechnical practices are understood by developers and implemented by listening to mobile-first users and emergent users.

*Angelika Strohmayer* is co-director of the Design Feminisms Research Group, board member of the Sex Work Research Hub, and an interdisciplinary researcher working closely with third sector organisations. She aims to work collaboratively on in-the-world projects that engage people at all stages of the research process to engender change towards more just worlds. To do this, she works across boundaries, bringing together disparate groups to engage in collaborative, justice-oriented, and sometimes digital endeavours. In 2021, she published her first book titled 'Digitally Augmenting Traditional Craft Practices for Social Justice: The Partnership Quilt' [11]. Angelika's (sometimes award-winning) publications address justice concerns to build on and develop feminist theories. These arguments are usually based on her in-the-world research and are developed in conversation with others such as experts by experience, support workers, or other researchers.

**Sarah Fdili Alaoui** is an associate professor at University Paris Saclay in interaction design, human computer Interaction and interactive arts. She is a dance artist, choreographer, dancer and a Laban Movement Analyst. Before her current position, she was a researcher at the School of Interactive Arts+Technology at Simon Fraser University in Vancouver, within the MovingStories project. She holds a PhD in Art and Science from University Paris-Sud 11, the IRCAM-Centre Pompidou and LIMSI-CNRS research institutes. She holds a MSc from University Joseph Fourier and an Engineering Degree from ENSIMAG in Applied Mathematics and Computer Science and over 30 years of training in ballet and contemporary dance.

Sarah completed a certification as a Laban Movement Analyst at the Laban/Bartienieff Institute of Movement Studies in New York, USA. Sarah is interested in intersecting research in interaction design with dance making and choreography. She has been involved in many art and science projects, collaborating with dancers, visual artists, computer scientists and designers to create interactive dance performances, interactive installations, as well as systems for supporting choreography and dance learning and documentation. Christina Wodtke is currently a Lecturer at Stanford with an appointment in the HCI group in the Computer Science department. She teaches Interaction Design, Game Design and Ethics in Design. Before joining academia, she helped grow companies like LinkedIn, Yahoo, Zynga, the New York Times and numerous startups throughout Silicon Valley. She founded Boxes and Arrows, an online magazine of design, and the Institute for Information Architecture. She's the author of 101 Theses on Design, Information Architecture: Blueprints for the Web, Radical Focus, Pencil Me In [16], and her latest, The Team that Managed Itself, about autonomous teams. She speaks worldwide about humanizing technology, playful workplaces, and the journey to help companies and products be more humane.

## **3 WEBSITE**

The website will be utilised both prior to and after the workshop as a resource for information and accepted pictorials relating to the workshop themes, as well as being used to promote the workshop and host the Call for Participation (CfP). stateofchiart.wordpress. com. It will also be used to host visual outputs and summaries after the workshop has taken place, and will be maintained after the conference. The website is built with accessibility in mind and is usable with screen readers.

# 4 PRE-WORKSHOP PLANS

We will make an online whiteboard miro.com/app/board/o9J\_lsTUaeo= / available two weeks prior to the event and give each participant their own space to create a mini visual biography of their arts practice. These spaces will create a starting point for conversations during the workshop. Instructions and kit requirements for all activities will be communicated in advance via email and on the Miro board and suggest a range of options so that any remote participation is not discouraged. We also plan to engage with a wider audience through the SIGCHI Discord channel and make a thematic channel as #CHIart. This will also correspond to a Twitter and Instagram hashtag which the organisers will populate with content in the weeks running up to the conference and workshop date. We will utilise the SIGCHI social media handles to run a fun campaign asking those following to make art on a sticky note and post it using both the #CHI2022 and #CHIart hashtags.

## **5 WORKSHOP STRUCTURE**

The workshop will take place in a hybrid manner to support inperson and remote attendance. The workshop will be structured to take place over the course of one day during the CHI2022 conference. Suggested Keynote speakers will be approached after acceptance. Lunch and morning/afternoon breaks will be factored into the program once the timings and format of the workshop are

CHI '22 Extended Abstracts, April 29-May 5, 2022, New Orleans, LA, USA

#### known.

minutes)

**Pre-Workshop:** Early arrivals will be encouraged to network. **Welcome & Introduction:** Conveners and participants will introduce themselves, and short presentation of arts in CHI work. (15

**Icebreaker 'Self Portraits':** Participants will be asked to think of their favourite or recent technology they have used and create an artefact that expresses how they and other users interactive with it, their attitudes toward it and their over emotional connection to it. (*15 minutes*)

**Morning Keynote & Artistic Responses:** Invited speaker either in person or remote to discuss the importance of imagery to tell compelling stories without the need for text. All participants will be asked to create an artistic response to the speaker e.g., sketch, painting, dance, made object etc. Identified speaker: Eli Blevis, Professor of Informatics in Human-Computer Interaction Design (HCI/d) at the Luddy School of Informatics, Computing, and Engineering (Luddy) at Indiana University, Bloomington. *(20 minutes)* 

Artistic Responses Show & Tell: Participants and organisers share sketches using and other forms of response to the keynote speaker's presentation. Miro will be used to share artefacts with remote attendees. (20 minutes)

**Discussion & Brainstorm:** Participants and conveners will be asked to discuss the challenges and barriers for new artists to fully engage in the CHIart practices. Followed by brainstorm of how identified challenges and barriers can be tackled or overcome. (20 minutes)

Afternoon Keynote: Invited speaker, either in person or remote to discuss how imagery, including sketchnotes, can be used in scientific research and publication. Speaker TBC. *(20 minutes)* 

**Pictorial Gallery:** Participants present a brief overview of their arts practice with connection made to their research, and display/describe their work creation during the day. (*30 minutes*)

**Curation & Construction** The creation and construction of the CHiart 2022 exhibition. *(60minutes)* 

**Closing Statements** Closing statements by the organisers and exhibition launch. (30minutes).

# 6 POST-WORKSHOP PLANS

Immediately after the workshop finishes we plan to host a small exhibition in an appropriate area within the conference venue (in conversation with the workshop and general chairs). The workshop organisers will request the use of a small number of poster-boards to facilitate presentation. This in-CHI exhibition can be hosted both within the physical venue and digital space for all attendees to explore. When the physical imagery is removed, the online exhibition (hosted in Mozilla Hubs) will remain as a legacy of the event. We also plan to form a working group and network whose aims are to raise awareness of the complementary and investigative nature of arts practice, and produce outputs that challenge existing publication genres. Finally, we will create a digital/physical artists' book in the style of a gallery catalogue – de-centering text and celebrating the artists' creation from the workshop. This will be made open access and available for download and print.



Figure 4: Left: A road-side merchant using digital payments for daily transactions, Digital illustration, Pranjal Jain, 2021; Right: We Hate You, Enormous Leering Skull (excerpt), Ink on Paper, John Miers, 2019 [8]. ©All artworks in this montage belong to the authors and are reproduced with permission.

## 7 CALL FOR PARTICIPATION

Are you an artist? Are you an HCI researcher? How does this duality affect your practice and research? We aim to explore the tensions and joys, pitfalls and potentials of artistic and visual thinking for the CHI community. How might we elucidate and explore these practices, how might they evolve, could we celebrate and appreciate these formats alongside the more expected outputs of the researcher or industry practitioner?

Join us in a one day exploration of a "plurality of practices" designed to redefine how the arts and artistic outputs are defined at CHI and other ACM conferences.

We invite you to explore your artistic practice, the tensions and coincidences, the emotions, that exist in the boundaries between HCI research and you own personal outputs. Potential participants should submit a 4-6 page position paper on the topic around the topic of "visual arts practice and HCI" in *pictorial* format – that is, the ACM paper format that celebrates the image, form or maker output over written text. All submissions should use the most recent pictorial format (suggested source: Creativity & Cognition cc.acm.org/2022/pictorials/). Submissions will be selected based on appropriateness for the call, content, and potential engagement with the core values of the workshop. Selection will be juried by the workshop organisers, who have extensive experience and knowledge relating to the area.

It is mandatory that for each accepted submission at least one person will attend the workshop. More details are available at: stateofchiart.wordpress.com.

# 8 SUBMISSION DETAILS

**Pictorial Format:** All submissions should use the most recent pictorial format (suggested source: Creativity & Cognition). Pictorials should be at least 80% imagery, it is suggested only the first and last page contain text e.g. introduction, brief background, and references. The in-between pages should be imagery with little to limited text, captions are optional. Pictorials authors are required to be sure that they produce accessible work. Please ensure all images CHI '22 Extended Abstracts, April 29-May 5, 2022, New Orleans, LA, USA

Sturdee et al.

have AltText and that "Enable Accessibility and Reflow with tagged Adobe PDF" is checked when you create your PDF file.

**Workshop Format:** Hybrid (remote and in person attendance supported)

**Participant Selection Criteria:** Submissions will be selected based on appropriateness for the call, content, and potential engagement with the core values of the workshop. Selection will be juried by the workshop organisers, who have extensive experience and knowledge relating to the area.

**Pictorial Availability:** Accepted submissions will be curated and hosted on the workshop website as a published eBook (interactive PDF), using fliphtml5. Participant outputs from the workshop will be digitalized and added to eBook titled 'State of the CHI(Art) Volume 1'. Option for a printed edition will be made available, at cost of the participant, using the platform *Blurb*.

### **Important Dates:**

- The submissions site will open: January 4, 2022.
- Pictorial Submission Deadline via EasyChair: February 24, 2022
- Notifications: March 3, 2022
- Book-ready submission via EasyChair: March 31, 2022
- Workshop Date and Time: April/May, 2022
- Deadlines are specified as Anywhere on Earth time.

# 9 WORKSHOP ACCESSIBILITY STATEMENT

The workshop will be designed to be attended by as many people as possible. All text and verbal utterances will be clear, simple to understand and in English. All shared imagery will contain Alt Text with appropriate color contrast. All sketching activities will be clearly verbalized, clear to follow, and at an appropriate speed. For parts of the workshop that are conducted online, remote attendees will have access to conference platform closed captioning. The virtual whiteboard platform will be set to allow for zoom in up to 300% without problems, keyboard navigation will also be supported. Opportunities for support, questions and comments will be present throughout the workshop regardless of in-person or online delivery.

### REFERENCES

- [1] Ellen Dissanayake. 2015. What is art for? University of Washington Press.
- [2] Sarah Fdili Alaoui, Thecla Schiphorst, Shannon Cuykendall, Kristin Carlson, Karen Studd, and Karen Bradley. 2015. Strategies for embodied design: The value and challenges of observing movement. In Proceedings of the 2015 ACM SIGCHI Conference on Creativity and Cognition. 121–130.
- [3] Stacy Hsueh, Sarah Fdili Alaoui, and Wendy E Mackay. 2019. Understanding Kinaesthetic Creativity in Dance. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems. 1–12.
- [4] Makayla Lewis, Lizzie Coles-Kemp, et al. 2014. A tactile visual library to support user experience storytelling. DS 81: Proceedings of NordDesign 2014, Espoo, Finland 27-29th August 2014 (2014), 386–395.
- [5] Makayla M Lewis and Lizzie Coles-Kemp. 2014. Are You Feeling It? The Use Of Comic Strips To Encourage Empathy in Design. Extended Abstract for Workshop on Enabling Empathy in Health and Care: Design Methods and Challenges, at CHI'14 Human Factors in Computing Systems, Toronto, Canada (2014).
- [6] Makayla M Lewis and Lizzie Coles-Kemp. 2014. Who says personas can't dance? The use of comic strips to design information security personas. In CHI'14 Extended Abstracts on Human Factors in Computing Systems. 2485–2490.
- [7] John Miers. 2015. Depiction and demarcation in comics: Towards an account of the medium as a drawing practice. *Studies in Comics* 6, 1 (2015), 145–156.
- [8] John Miers. 2019. So I Guess My Body Pretty Much Hates Me Now. Self Published (2019).

- [9] John Miers. 2021. Two Pictures of My Brain. In *Hinterlands*, N. Scholts S. Niederer and K. Clarke (Eds.). ARIAS: Platform for Research through the Arts and Sciences, Amsterdam.
- Christian Nold and Makayla Lewis. 2020. Sketch Post Covid Future, #SketchPost-CovidFuture. https://sketchpostcovidfuture.myblog.arts.ac.uk/
- [11] Angelika Strohmayer. 2021. Digitally Augmenting Traditional Craft Practices for Social Justice: The Partnership Quilt. Springer Nature.
- [12] Miriam Sturdee, Jason Alexander, Paul Coulton, and Sheelagh Carpendale. 2018. Sketch & the lizard king: Supporting image inclusion in HCI publishing. In Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems. 1–10.
- [13] Miriam Sturdee, Makayla Lewis, Katta Spiel, Ernesto Priego, Marina Fernández Camporro, and Thuong Hoang. 2021. SketCHI 4.0: Hands-On Special Interest Group on Remote Sketching in HCI. In Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems. 1–4.
- [14] Miriam Sturdee, Makayla Lewis, Angelika Strohmayer, Katta Spiel, Nantia Koulidou, Sarah Fdili Alaoui, and Josh Urban Davis. 2021. A plurality of practices: artistic narratives in HCI research. In *Creativity and Cognition*. 1–1.
- [15] Miriam Sturdee, Lauren Thornton, Bhagya Wimalasiri, and Sameer Patil. 2021. A Visual Exploration of Cybersecurity Concepts. In *Creativity and Cognition*. 1–10.
- [16] Christina Wodtke. 2017. Pencil Me In: the Business Drawing Book for People Who Can't Draw. Cucina Media.