2023

Arts and Humanities Shaping the AI Future

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April 2023

Arts and Humanities Research Council

Funded by AHRC grant: AH/W00769X/1

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Summary

The organisation of this event was motivated by the view there should be more Arts and Humanities (A&H) perspectives, methods and approaches involved in shaping our future relationship with AI technology.

Our invitation was sent to the most diverse group we could imagine being interested in this view. Positive responses to the invitation, rich discussions during and critical reflections after the meeting in general confirms this view. Besides facilitating a discussion amongst this group of participants from different disciplines, the event was not outcome-driven.

Some information as well as questions were gathered before the meeting. At the meeting, example projects using A&H methods to shape relationships with AI technology were presented as triggers for small group discussions to follow. Note takers collected and summarised discussion highlights at the end of the day, and invitations for post-meeting follow up reflections were sent.

This report provides a relatively detailed account of these activities, the conditions and what was shared. Writing this has been useful for considering what might come next, which we are currently reflecting on.

Please feel free to contact us with any thoughts or questions.

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This report should be referenced as:

Studley, M. and deLahunta, S. 2023. Arts and Humanities Shaping the AI Future. Bristol Robotics Laboratory, UWE Bristol

ISBN: 978-1-84600-1147

DOI: 10.18552/CDaRE/2023/0001

Background

On 27 January 2023, two dozen individuals gathered in London for a six hour meeting[1] focussed around the key question: **How can the Arts and Humanities shape our AI future?** The meeting was organised by two researchers, one from the arts and humanities (Scott deLahunta) and the other from robotics and engineering (Matt Studley), and invitations were sent to colleagues who were thought to have an interest in such a question. We cast the net as widely as we could across policy makers, scholars, scientists, industry, artists and teachers, finally collecting a confirmed list of 24 people. The majority of our invitations were to personal contacts who also provided suggestions. (See Appendix 1 for attendee list).

Both of us have been working for many years on interdisciplinary research projects involving some kind of human-computer interface design and development. As data-driven approaches increased and the related problems and challenges for an open society became more apparent, our interactions and conversations with others began to reflect this shift in concerns. Before the two of us met, we were independently trying to come up with meaningful ways to draw on our past research, but re-thought and re-framed so we could reflect critically on what would be good for society. We both felt that in the relatively short history of human-computer developments, that **human-ness** was losing ground.

When we met, it was this shared feeling about the depreciation of human-ness that motivated us to organise this meeting and to emphasise the Arts and Humanities (A&H). We both wanted to see how A&H research and knowledge could be "applied" to do something useful in this context. The key question we formulated for the invitation was based on our experience with the discourse (studies, discussions, debates) and the practice (development, implementation, use) related to Artificial Intelligence.

As we started to consider the framing for our collaboration, we recognised five ways that researchers and practitioners in the A&H might be interacting with AI.

01. Artists creating artworks which critically engage with AI, for example, by highlighting ethical problems like bias.

02. Practice researchers using participatory, performance and creative processes to engage publics.

03. Action researchers and social scientists using ethnographic engagement with communities of practice, e.g. developers and data scientists.

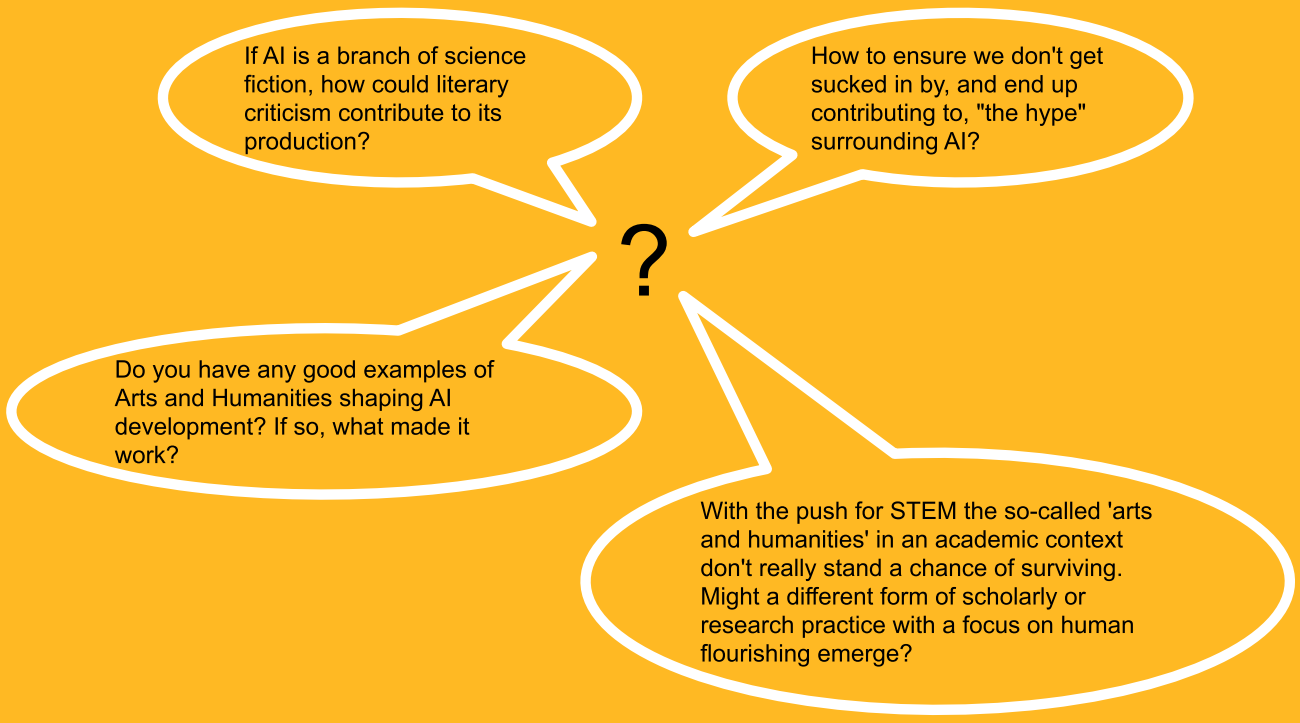
04. Ethics scholars and philosophers directly or indirectly bringing academic rigour to understanding the roles and responsibilities of developers and the systems they develop.

05. Digital humanities scholars using advanced computational methods in their research.

Of these, we felt the ones that interested us most were the second and third. The A&H seemed to be increasingly present in the discourse about changes that **should be** made (making the technology more just, fair and transparent), but it was not clear what impact they were having on practice where the changes **need to be** made. Hence the "how" was critical, and as part of our organisation we sought out and invited several individuals to present their projects as examples of these two approaches.

Preparation

Before the meeting we invited questions from all participants which were shared beforehand, and also asked if anyone could recommend initiatives involving the A&H in an applied way we were not aware of (see Appendix 2 & 3).



Summary

The attendees asked a variety of questions related to the intersection of arts, humanities, and AI development. The questions explored the role of arts and humanities in shaping AI development, how narratives and storytelling can influence the development process, and the impact of AI on society and culture. They also discussed the challenges and barriers to multidisciplinary collaboration and how to shift the narrative of humanities and arts in relation to AI development. Additionally, they explored ways to ensure that the development of AI is ethical, responsible, and considers human flourishing, while also avoiding getting caught up in the hype surrounding AI.

The Event

The day began at 11 am with an introduction followed by six short presentations of example projects. The one-hour lunch was followed by two one-hour small group (roundtabled) discussions which mixed up participants to **maximise the number of perspectives** everyone was able to share and listen to. One more short presentation on emerging standards was followed by a report back from each group and open discussion finishing on time at 5 pm.

The six presentations of example events were generously given by individuals at the start of the event as **triggers for the discussion rounds** that followed. There was no discussion or Q&A after each so as to maximise the time for the discussion rounds. This means the examples they offered and questions brought up were not fully explored in the context of the discussions, something that was reported as missing in reflections collected after the event. We try to give the presentations more exposure here in this report. Further information or access to the slide presentations may be requested.

Rik Lander is an artist and senior lecturer at UWE. He presented the project I am Echoborg which uses an AI chatbot as a central character in a live theatrical production. This project has been running since 2016, and the project website has a great deal of information including research papers and plans for the future which involve a greater focus on ethics. They are "interested in turning the show into a tool for people who are making major decisions concerning AI implementation"[2] One 2021 study discusses how the show "inspires debate beyond binary conclusions (i.e. AI as good or bad) and how audiences can understand potential creative uses of AI, including as a tool for co-creating entertainment with (not just for) them."[3] Keywords: participatory engagement, conversational AI, immersive experience, evidence-based, audience accessible.

Jo Bates is Principal Investigator for Patterns in Practice, an AHRC funded project based at the University of Sheffield "exploring how practitioners' beliefs, values and feelings interact to shape how they engage with and in data mining and machine learning." (website quote) The project focuses on three areas of AI implementation: 1) pharmaceutical drug discovery; 2) higher education learning analytics and 3) arts practice. Their project blog explores these three areas and includes the creation of an artistic response from the musician/ writer Otis Mensah. Mensah was invited to create a short storytelling performance in response to early findings of the case study involving the mining of chemical data to inform drug discovery. The research team uses a combination of interviews, diaries, focus groups and observations in their empirical work. Keywords: artistic response, social science methods, history of AI, reflexivity.

Louise Hickman (Minderoo Centre for Technology and Democracy, University of Cambridge) presented the work of the JUST AI working group on Rights, Access and Refusal. The working group "considers the possibilities of tech refusal and its potential beyond a human rights framework". (website quote). She presented concepts such as "automating vulnerability" used to explore the connections between AI and disability justice and a "Lab Model"[4] that uses participatory research methodologies to critically examine technological access as a multi-faceted ethical issue. The ethos of the Lab Model is to refuse the "often ocularcentric, epistemological tools with which AI is understood" by integrating more auditory and haptic ways of knowing drawing on theatre and performance knowledge. Keywords: opting out, disability-led design, embedded imaginaries, different body-minds, extra sensory.

Kevin Walker leads the research strand on AI and Algorithmic Cultures at the Centre for Postdigital Cultures, Coventry University. He presented a short film showing the project Performing AI, which was supported by one of the Public Engagement Grants from the Turing Institute and involved a partnership with the Serpentine Gallery's Creative AI Lab. The short film gave an impression of the interactive audio-visual elements involved in a performance created by artist duo DMSTFCTN "exploring the use of simulation in artificial intelligence training (...) set within a real-time simulation of a supermarket." (website quote) The film also showed images from F0lded 1n, a work he and collaborator Anna Drupke created for an exhibition in Amsterdam (Oct 2022-Mar 2023). These projects show artworks created for the "contemplation of AI" (website quote) by the public, using "artistic practice as a means of unfolding complex concepts and systems in AI."[5]Keywords: immersive and experiential space, artistic collaboration, public engagement, opening up the black box, personification.

Sarah Hitt is project manager for the EPC's Ethics Toolkit Initiative. Her presentation drew on two upcoming book chapters titled "Educating the Whole Engineer by Integrating Engineering and the Liberal Arts" and "Arts-Based Methods in Engineering Ethics Education." [6] She drew attention to how "habits of mind" might be better understood and that this can be used to support "integrative learning".[7] She also suggested Engineering might learn from how medicine has integrated the A&H. Her final slide situated AI at the intersection of two circles with the following generalisations regarding "habits of mind". From the Arts/ Hum "How do we see the world, and what kind of world do we want?" and from Engineering "How do we build the kind of world we want?" Keywords: different ways of thinking, learning environments, interdisciplinary collaboration, art appreciation, utilisation of arts methods.

Alison Powell from the London School of Economics and Finnish artist Samir Bhowmik presented the JUST-AI network (for which Alison is the director) and Samir's project titled Heat Work commissioned by JUST-AI. JUST-AI was set up with funding from the Arts and Humanities Research Council (AHRC) and support from the Ada Lovelace Institute. Alison described their work as interventionist, engaging academics and creative practitioners on "issues of fairness, justice, and materiality in relation to data and AI ethics research." (website quote) The website has documentation of many processes and activities including their Deep Sustainability Research and focus on repair work[8] which is also the context for Samir's project. Heat Work is currently a work-in-progress, focussed on critically interrogating the mining/ extraction of minerals from the lands of the South-Asian Santhal community.[9] The project is doing this by digitally recording Santhal dance movements and the energy/ heat expenditure of the computer at the same time. The idea is to explore what it might mean to perform movements that reduce this overall energy expenditure. Performance as repair. Keywords: creative process, artistic exploration, interrogating sustainability, humanities-led, ethical research practices.

These presentations demonstrated a range of tools, concepts, methods and processes showing "how" the Arts and Humanities might help shape our AI future through various ways including audience engagement, empirical research, public contemplation, integrative education, alternative narratives, challenging assumptions, provoking questions and raising awareness. There was clearly also a high level of various kinds of expertise (e.g. artistic, educational, social science, etc) involved in these projects, but the lack of time dedicated to further discussion kept us from collectively asking questions, seeking clarification, critiquing and deepening understanding. This was also reflected in the follow up feedback (see below). How much they functioned as concrete discussion triggers is open to interpretation.

Discussion Rounds

For these discussions there were four large round tables in the room. Around each five or six participants, including the note taker, could gather comfortably. The seating arrangements were made arbitrarily for the first round and then randomly varied for the second round. No one was invited or asked to lead the discussions, only the note taker (who was preparing to present discussion highlights at the end of the day) would have had some influence on pulling together ideas from the group toward the end of the hour. This met with and fulfilled the expectations of some, but also received feedback from others that next time more direction would be desired.

At the end of the discussion rounds, Alan Winfield, Professor of Robot Ethics at UWE, was invited to give a short presentation on the development of ethical standards in robotics and AI. This was intended to frame the day, which began with the presentations of A&H based approaches to the question of shaping the AI future, with a closing reflection on how internationally recognised standards will also contribute to this shaping process. This was intended to communicate the perspective that one cannot and/ or should not happen without the other. Alan explained how standard specification (which can take up to 5 years for approval) for social robots, for example, has multiple benefits from aiding accident investigations to supporting robot explainability functions. [10]

Not surprisingly, there was minimal discussion at the end of this very full day with comments reflected on: the emergence of many art making ideas from the discussions, but also about not relying on artistic creativity alone; about getting more industry representatives in the room; about how much had been left unspoken and about the need for more bridges being made apparent.

Discussion Highlights

This concept map reflects our ordering of the various highlights into five higher level topics: 1. (what) Arts and Humanities bring; 2. Valuing the human; 3. Concerns; 4. Resistance; 5. Interdisciplinarity.
Please see Appendix 4 for more details.

Concept Map of Discussion Highlights

Follow Up

A few weeks after the event, we collected responses to the following questions:

01. Why were you there?

Why were you there? What were your expectations, motivations, needs, etc. Some were interested in how arts and humanities research can improve the flexibility and success of AI and tech projects in general, while others wanted to gain insights outside of their professional area. Some wanted to connect with a wider group of arts and humanities researchers interested in Responsible and Ethical Development. Others attended the workshop to challenge their own disciplinary perspectives and explore something disruptive and out of their usual comfort zone.

02. What do you remember?

What do you remember from the day? Images, impressions, feelings, etc. Some reported fantastic insights and options from such a diversity of approaches. Others started by feeling uncomfortable and out of their depth, quickly becoming excited by the flood of new concepts and approaches, or noted how quickly six hours flew by! Among the opportunities for development people recognised were a lack of understanding of the development and technology underpinning corporate AI, and a limited understanding of organisations and their people challenges.

03. What are your main reflections?

What are your main reflections? What did you take away? Do you have new questions? Why does responsible AI matter to the teams who design, develop, and deliver AI? How can flexible and holistic thinking inform these teams? The diversity of perspectives in the room highlighted the need for more conversations and work to be done to develop a common vocabulary, theoretical approaches, and shared priorities/problems; but also the possibilities from untapped perspectives and unheard voices. Some expressed a desire for more focus on practical issues and explicit motivation for the workshop's goal, such as whether it was for a future paper, think tank, or framing government regulations in the UK. The relaxed focus was recognized as a strength by others, allowing free-flowing conversations to spark ideas. The workshop raised a lot of new questions and inspired some attendees to investigate related ideas in their own practice and discipline; one attendee was struck by their lack of knowledge about dance research and considered how embodiment could be relevant to their own work.

04. What worked? What didn't?

The Good

Great use of presentations as a primer.

The good will and intellectual and creative curiosity that I think was shared across the room.

The discussions were excellent.

It was a good size--people were mostly able to interact with most other people but there were also enough different people to engage with.

The Not-So-Good

Perhaps a clearer structure or sense of what was to be achieved.

Unsure if the presentations were useful.

More Q&A after presentations, panel discussions, post-workshop dinner/drinks.

Better capture and dissemination of discussion.

The next one would need more focus and expectation of participants to achieve more.

05. Who was missing?

Classicists, Historians, AI Professionals, Data/Computer Scientists, people who are sceptical about Arts and Humanities having a place in AI Ethics. More friction to make more fire.

06. What next?

Some attendees would like more events in the same format, valuing the free thought and exchange of ideas between different disciplines.
Some attendees would like a similar event, but with a clearer focus on outcomes.
Less use of facilitated breakout groups - but not sure what format would be better.

Conclusion

All participants were invited to read and comment on this report. After concluding this period of consultation, we are wrapping things with its publication. This report includes conceptual, organisational and processual tools that might be reused in different contexts. We hope it might prove useful. As the workshop conveners and main authors of this report, we are available (at our email addresses above) for any questions. We wish to thank all of the participants for generously taking the time to work with us on these questions.

Acknowledgements

- **Octavia Reeve. Ada Lovelace Institute**
- **GAP-E @ Coventry University**
- **Coventry University Design Team**
- **Invited Note Takers: Simon Ellis, David Mellor and Kathryn Stamp.**
- **All workshop presenters and participants**

Appendix 1

TITLE/ LOCATION/ DATE/ DESCRIPTION/ INVITED ATTENDEES

How can the Arts and Humanities shape our AI future?

When: 27 January 2023. 11.00 until 17.00.
Where: National Grid Room, Royal Academy of Engineering. Prince Philip House, 3 Carlton House Terrace, London. SW1Y 5DG

There are increasing calls for the Arts and Humanities to be more involved in the development of Artificial Intelligence. The assumption is that arts and humanities can bring perspectives that will help make this development more just, trustworthy and responsible. This implies that developer communities (data scientists and AI researchers) are in need of these perspectives. But is there any evidence of this involvement delivering on such promises? There is talk of a less academic, more applied approach, with scholars working alongside artists and scientists, but what are the examples and how might we learn from them? That is the key question we would like to address in organising a one-day workshop with a small number of individuals to openly share and discuss examples of how the arts and humanities can shape our AI future. We are particularly interested in methods and approaches involving practice researchers using participatory, performance and creative processes to engage the public and action researchers/ social scientists using ethnographic engagement with communities of practice, e.g. developers and data scientists.

Conveners:
Scott deLahunta. GAP-E. Centre for Dance Research. Coventry University.
Matthew Studley. Bristol Robotics Lab. UWE Bristol.

Invited Attendees:
Jo Bates. Patterns in Practice. University of Sheffield
Samir Bhowmick. Academy of Fine Arts. Uniarts Helsinki.
Alan Blackwell. Computer Laboratory. University of Cambridge.
Dawn Bonfield. Department of Engineering. King's College London.
Simon Ellis. Bodies & AI. Centre for Dance Research. Coventry University.
Satinder Gill. Centre for Music and Science. University of Cambridge.
Dawn Greenberg. AHRC. UK Research and Innovation.
Louise Hickman. Minderoo Centre for Technology and Democracy. University of Cambridge.
Sarah Hitt. New Model Institute for Technology Engineering.
Tomasz Hollanek. Leverhulme Centre for the Future of Intelligence. University of Cambridge.
Rik Lander. Echoborg. University of the West of England.
Claire Lucas. Professor of Engineering Teaching and Learning. King's College London.
Darian Meacham. Faculty of Arts and Social Sciences. Maastricht University.
David Mellor. GAP-E. Centre for Dance Research. Coventry University.
Alison Powell. JUST AI Network. London School of Economics.
Octavia Reeve. Associate Director Impact & Research Practice. Ada Lovelace Institute
Dani Shanley. Faculty of Arts and Social Sciences. Maastricht University.
Jason Sprague. Digital Innovation and Organisational Transformation.
Kathryn Stamp. GAP-E. Centre for Dance Research. Coventry University.
Shannon Vallor. Centre for Technomoral Futures. Edinburgh Futures Institute
Kevin Walker. Performing AI. Centre for Post-Digital Cultures. Coventry University.
Alan Winfield. Professor of Robot Ethics. UWE Bristol.
James Wright. PATH-AI. Turing Institute.
Sarah Wellard. Innovation Lead Digital Ethics. Innovate UK.

Schedule:
10.45 arrival
11.00 welcome, round of quick introductions and short framing for the day.
11.10 six short presentations
12.30 lunch
13.30 small group discussions round 1 (4 groups w/ notetaker)
14.30 small group discussion round 2 (4 groups w/ notetaker)
15.30 break
16.00 short presentation. Alan Winfield on how emerging standards support ethical development.
16.10 Notetakers Report back from group discussion (high points only)
16.30 open discussion
17.00 finish.

Appendix 2

Participants' Invited Questions

At the workshop, we'll join together to think about ways that Arts and Humanities can shape AI development. Are there any questions you'd like to put to the room?

My concern is that with the push for STEM the so-called 'arts and humanities' in an academic context don't really stand a chance of surviving. Might a different form of scholarly or research practice with a focus on human flourishing emerge?
How can the arts and humanities contribute to AI development without being reduced to a mere means to technical or technocratic ends; that is, how can the integrity and intrinsic value of the arts and humanities be preserved and enriched in this context?
Can the arts and humanities help AI development to be more ethical and responsible, and if so how?
To what extent do arts and humanities scholars/practitioners need to acquire a deeper technical understanding of AI/ML in order to constructively shape its development?
What are the institutional barriers to arts and humanities influencing AI development, and how can we lower or remove them?
Humanities scholars working on technology ethics often point to the need for 'alternative narratives' of technology but how could their work on metaphors, stories, and parables translate into the development process? How exactly should technologists engage with these 'alternative' stories? Are there specific areas of intervention in the design process that would especially benefit from narratives-focused exercises? Who should lead them and how?
If AI is a branch of science fiction, how could literary criticism contribute to its production?
With the skyrocketing popularity of Lensa and DALL-E in the last few months, there has been an intriguing overlap between the Arts and AI. I'm curious whether people think this has made the public more welcoming or less sceptical of AI.
How does the approach to questioning and framing a problem differ using an arts and humanities view instead of a scientific approach?
What is the definition of Arts and Humanities and what is it juxtaposed to? Is there an agreed and standard way of 'shaping AI development'? If so, can this be defined?
Assuming there is a standard approach to AI development, what approaches or models of ideation which are prevalent in Arts and Humanities seem to be absent in that standard approach? Are we not looking for the gap between what Arts and Humanities can add and what is currently being undertaken?
In teaching critical thinking skills in the Arts and Humanities, is there a standard approach or taught insights in defining a problem?

At the core of it, are we saying that Arts and Humanities - the study of culture and society - has an approach which is more complex than that of typical computer science approaches to complex software development? Is the issue that computer science does not draw upon complexity elsewhere or that AI, as a product of computer scientists, is simple and not able to represent the complexity found in culture and society?
Is the challenge that we train the AI Developer to use a very small set of skills and tools to undertake their craft whereas the human geographer or cultural constructivist can embrace all of the complexity our human existence has to offer?
Isn't the core issue about AI Development one of commercial outcomes and affordable impacts because for AI to work it must be underpinned by layers of technology, maturing heuristic models and a finite application of the technology? The joy of the human experience is that our brains offer us so much computing power that we can comprehend the complexity with much less effort and thus a much lower cost. As the natural human computing power is in essence free, we do not value this complexity in solving issues facing humanity? Assuming the affirmative, could we not say that we have to change how we value complexity?
Should the professors within the Arts and Humanities seek to reduce the barriers for their students to engage with AI development by using technology, in this case applicable AI, to engage and critique the status quo? To do this, professors would have to move beyond their own vertical disciplines and take the complexity and curiosity with which the teach and focus it on having cross-sectoral or multimodal engagement with the challenge.
How to ensure we don't get sucked in by, and end up contributing to, "the hype" surrounding AI?
How to shift the narrative of humanities = ethics / AI development and arts = communication / AI deployment and public critique to include art and design thinking early and meaningfully?
Do you have any good examples of Arts and Humanities shaping AI development? If so, what made it work?
Alan Blackwell claims in "Moral Codes" that AI is a branch of literature, not a branch of science. If this is true, what should Arts and Humanities do next?
How can we begin to ask the question, from a creative point of view, "is AI even interesting here at all?" Or "Is AI even necessary"?
I believe a systemic problem in the UK is the extreme difficulty of getting joint AHRC-EPSRC grants funded. My question is: how can this problem be overcome? Or are there ways of getting round it.
How can ethics be made part of the practice of AI development; so that it perfuses the everyday? Where would this come from, what would it look like, and how would it be encouraged?

Appendix 3

OTHER NETWORKS

We believe the Arts and Humanities can do much more to shape the processes and outcomes of AI development. Are you aware of other similarly inspired networks or researchers who are not already attending our workshop?

- Just AI
- The STIR work of Erik Fisher
- Enabling a Responsible AI Ecosystem (Ada Lovelace Institute / Edinburgh University).
- Data and Society's work on AI in/from the Majority World
- Creative AI Lab of Kings College London and Serpentine, led by Mercedes Bunz (Kings) and Eva Jäger (Serpentine)
- Charlotte Webb and Ben Stopher at UAL's Creative Computing Institute
- Marie McPartlin or Emma Hannon at Somerset House Studios commissioning artists working on AI and related topics
- Catherine Griffiths and Rosemary Lee engage with ML/AI in their scholarly and artistic work.
- A doc for sharing useful responsible tech/AI resources
- The Daily Nous listserv
- Look for connections through the network of the British Academy and their SHAPE agenda?
- Noopur Raval, AI Now Institute Koray Tahiroğlu, Aalto University
- Charlie Beckett at LSE has a large project with Google AI on AI and newsrooms globally.

Appendix 4

DISCUSSION HIGHLIGHTS

Discussion 1: Dawn Greenberg, Louise Hickman, Sarah Hitt, Tomasz Hollanek, Rik Lander, Kathryn Stamp (notes)

- 'I don't get it' & scepticism – both equal. Fear/concern. Do artistic mediums mitigate these? Perceived as 'friendly'. But what about those who are fearful of art?
- Narratives and vibes. Narratives – which are dominant? Meta narratives embedded in stories. Who has the power or agency to create or influence the narratives?
- Taking care – faking care. Is there a caring AI? How might people encounter care? Is the AI caring or the gesture/process an act of care? Reciprocity and perception of care and what constitutes care processes
- Communication modes. How to make things accessible? Codesign process. More exploration of different modes of communication

Discussion 2: Alan Blackwell, Louise Hickman, Claire Lucas, Dani Shanley, Kevin Walker, Kathryn Stamp (notes)

- Anti-future lab studio – space and time for dwelling in place. Dwelling in place – resisting thinking about the future – crip time (space and time) as resistance to productivity
- Disrupt the instrumentalization of A&H and challenge being 'in-service to'. Is there something unique to how we (A&H) collaborate?
- A&H as ways of thinking, seeing and doing. Pockets of humanities that overlap with social science
- What about disciplines that don't want to? Lab collective – building a culture of interdisciplinarity
- Deficit model – creative and ethical A/H but not developers. Ethical understanding only from artists – problematic.

Discussion 1: Matthew Studley, Shannon Vallor, Kevin Walker, Alan Winfield, James Wright, Simon Ellis (notes)

- push push interdisciplinary work – How might this push happen differently, and what kinds of different interdisciplinary work might happen?
- history as a discipline that can help contextualise the changes going on (not looking to the 'what if')
- develop deeper intercultural possibilities (Euro-American so dominant) – what new cultures of practice might emerge?. e.g. in thinking about incentive patterns and/or practice cultures – studying these (e.g. anthropology) … e.g. Japan where there is less focus on short-term stakeholder value/less competing with colleagues

Discussion 2: Jo Bates, Tomasz Hollanek, Alison Powell, Matthew Studley, James Wright, Simon Ellis (notes)

- We can start by asking who the "our" is in our AI future
- To recognise output oriented (problem solving) vs open-ended process-oriented modes of practice and how they afford different understandings, modes of play (reminded here of Carse's The Infinite Game)
- Acknowledge increasing hyper-specialisation of disciplinary training and how this narrows awareness of other ways of knowing/being, and develop strategies/possibilities for intervening in this pattern. e.g. enter spaces to deepen understanding of the nature of those disciplines: to visit – to see how others are steeped in culture, and also to experience humility of confusion

Discussion 1: Darian Meacham, Alison Powell, Octavia Reeve, Dani Shanley, Jason Sprague, David Mellor (notes)

- Issues with 'how' as an approach to the question - issues with defining AI. Machinic knowing and how AI is imagined vs applications in specific areas
- AH can help with integrated thinking – trying to overcome some of the problems with siloed education systems (certainly in the UK). AH brings ways of seeing, thinking, and doing
- AH can perform certain kinds of intervention in design and development. Interventions provide possibilities for participatory moments
- AH… provides the context for or opens permission for flexibility / reflexivity – highlights the values of people and organizations. AH needs to participate in 'responsible hype' and AI rather than adding to problematic narratives about futures

Discussion 2: Samir Bhowmick, Dawn Greenberg, Rik Lander, Shannon Vallor, David Mellor (notes)

- incentives and rewards for AH and engineers to engage in a joint space – being able to go beyond superficiality. - a rearrangement of the categories of value
- how do we avoid anthropomorphizing AI and adding to the hype? -which public do you speak to?
- maintaining the importance of context is vital. -there are vastly different cultural perceptions between West and other cultures regarding AI pervasiveness and functions
- AH could help with a taxonomy of AI – considering contexts of development, contexts of deployment, contexts of power, the many different approaches to and challenges of ethics-AH should not be reduced to ethics – not everything should be collapsed into a moral judgement of right/wrong or good/bad

Discussion 1. Alan Blackwell, Claire Lucas, Samir Bhowmik, Jo Bates, Scott deLahunta (notes)

- Understanding role of bodily knowledge/ embodiment is undervalued. So the problem is not only AI, but more broadly technology. Although the AI has no body.
- Social Science and Humanities combination is crucial. Humanities is good on cultural context and history, but social science is humanities with a body
- Be reflexive as regards one's own discipline. Reflexivity, questioning assumptions and beliefs, humanities are not 'special' don't privilege one discipline over another

Discussion 2. Darian Meacham, Alan Winfield, Sarah Hitt, Jason Sprague, Scott deLahunta (notes)

- What distinguishes humans from machines. The human imaginary, what makes us uniquely human.
- Education early childhood in particular, needs arts/ crafts/ music/ dance. We need more education in 'humanistic values'
- Understanding Business Better? When the bottom line is finance, what interventions might really work here?

Appendix 5

End Notes

1. The workshop was funded within an AHRC grant, AH/W00769X/1, as a result of the Ethics in artificial intelligence research and development call.
2. See Rik Lander's Presentation. Slide 6.
3. Eagle, R., Lander, R., & Hall, P. D. (2021). Questioning 'what makes us human': How audiences react to an artificial intelligence–driven show. Cognitive Computation and Systems, 3(2), 91-99. https://doi.org/10.1049/ccs2.12018
4. See Louise Hickman's Presentations. Slides 3-5.
5. Quote from recent presentation by Walker and collaborator Linnea Langfjord Kristensen at the Scottish AI Summit.
6. For the International Handbook of Engineering Ethics Education (publication expected June 2023) and SEFI Handbook of Engineering Ethics Education (publication expected early 2024).
7. See Sarah Hitt's presentations. Slides 3-5.
8. See Repair Cards for insight into process.
9. JOHAR | An Ethnographic Documentary on Santhals by Abhijit Patro
10. Winfield, A.F., van Maris, A., Salvini, P. and Jirotka, M., 2022. An Ethical Black Box for Social Robots: a draft Open Standard. arXiv preprint arXiv:2205.06564.