

Grand Challenge of Transformative Technology (GCTT)

Evaluation and Impact Report

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Executive Summary

Overview and Context

This report evaluates the impact of the Grand Challenge of Transformative Technology (GCTT) event held on the 24th of April 2023. The event took place in the context of a changing strategy surrounding Grand Challenges at UCL, with TT no longer being a separate Grand Challenge as part of the 2022-2027 Strategy but one that underpins the five new Grand Challenges. Data for evaluation was obtained using participant observation, exit surveys and a series of mini interviews.

Main points and findings

The event involved a series of short talks on Transformative Technology, followed by roundtable discussions in the Object-Based Learning Lab followed by a mini exhibition in North Cloisters with stalls hosted by attendees and speakers. Attendees were mostly academic staff with some postgraduate students and one undergraduate student.

The event itself was well-received throughout the day according to the exit survey and mini interviews. The roundtable discussions were frequently cited as a valuable part of the day, with respondents highlighting the value of interdisciplinary discussion and emphasising the impact of discussing TTs on their pedagogy, research and network going forward. However, the experience of the roundtables seems to have varied across the different tables. The opening talks were well-received though some detailed feedback indicated that they were not sure about the role Grand Challenges and its history; future events might need to outline the trajectory of GC so far whilst reconciling this with time constraints, especially if more events are held and attendees are not initiated with GC already.

Overall, attendees indicated that they would like to see more events such as the GCTT event with opportunities to come together and discuss TTs with colleagues from a variety of backgrounds. This discussion was agreed on as an extremely valuable part of the event. Suggestions were for events with a more focused topic such as a specific TT or theme, as well as pre-decided seating plans for discussions to ensure that tables represent a range of viewpoints and to offer more networking opportunities. Another point to improve was outreach to the student community and increase awareness of these events beyond academic staff.

Those who took part in interviews were asked if they were interested in a potential publication on GCTT through UCL press. Response was positive, with a variety of suggestions including an edited volume on TTs or a short history of Grand Challenges more broadly. Though there is appetite for a published volume, there was some anxiety over how to make this relevant going forward – one suggestion was to publish regularly on TTs through a platform such as The Conversation or to create a collaborative website on TTs.

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1. Scope of Report

This report evaluates the impact of the Grand Challenge of Transformative Technology (GCTT) event held at the Object-based learning lab (OBLL) and North Cloisters of UCL on the 24th of April 2023. The event was held in the context of UCL's 2022-2027 research strategy and growing institutional recognition of investigating the role of Transformative Technologies (TT), such as through the UKRI's £250 million investment in TTs. As part of the new strategy, the Grand Challenges (GC) initiative is evolving from six GCs to five, with TT being phased out as a discrete GC. The event was a starting point for conceiving how TTs underpin the five new GCs, and to continue thinking about how we might combine discussion on TTs with ideas of responsible innovation going forward at UCL.

The first section of the report explains the methods used for collecting data about the event and the rationale behind these methods. The second section briefly outlines the course of the GCTT event. The third section presents and discusses the outcomes of the data collection methods. The fourth section is a short personal reflection on my own experience as Evaluation and Impact Assistant as part of a short internship. The fifth and final section synthesises findings from the data collection and examines the future for GCTT and GC more broadly.

2. Methods

Three primary methods were used during the event and in subsequent weeks. These were participant observation, an online exit survey and follow-up interviews.

a. Participant Observation

The primary method used on the day of the event was participant observation. This involved me as a researcher taking full part in the event as any other attendee would and observing the course of the event to identify recurring themes and topics for later analysis. By being directly involved in the event and taking fieldnotes throughout the day, I built a robust data set that would form the basis of the survey and interview questions. The possible drawback of this event was that my own experience was narrow as I was only able to participate in one discussion at a time, potentially missing out on conversations happening elsewhere at the event. The other two methods attempted to remedy this with more breadth.

b. Exit Survey

Following the event, a survey made using Microsoft Forms was circulated to attendees that registered for the event through Eventbrite. The survey asked after respondent's names, how stimulating and relevant they found each section of the event, and longer-form answers asking for suggestions on how to improve the event and how the event might have impacted their thinking or practice. Survey respondents were also asked if they would like to participate in follow-up mini-interviews and provided contact details if they were interested.

c. Mini-interviews

Respondents who consented were interviewed for 10-15 minutes on three questions: how they found the event, the potential role of GC and GCTT in the future, and any thoughts they might have on presenting the themes discussed during the event through a publication or otherwise.



3. Course of the Day

The GCTT event itself consisted of three sections: a series of short talks from speakers of different departments on Transformative Technologies; roundtable discussions where attendees were split into four tables to discuss set questions before feeding back and discussing with the rest of the room; and a mini-exhibition in North Cloisters where some attendees ran stalls on their research. As part of participant observation, I attended the short talks and took notes of content, before participating in the roundtables discussions as part of Table 3.

Though there were three questions set for the roundtables, time constraints meant that only the first question was discussed in detail, though the second was also tackled briefly. Despite this there was animated discussion both within tables and between tables when feeding back on the first question that covered many of the themes that the second and third question hoped to address. I took notes during the discussions on the content of discussion.



1: Kvass and Sourdough at the mini-exhibition.

Afterwards attendees broke out into North Cloisters for the mini-exhibition. After the roundtables the first port of call for most was the stands offering food – a variety fermented foods, cheeses, or uncooked Quorn nuggets for the adventurous – though attendees made their way slowly round to each stand. After an hour or so students passing through the cloisters stopped to try some food or ask questions as those running the stands found a spare moment to visit the other stands or catch up with other attendees. During the event I visited each stand, taking notes, before finding a place where I could take in the whole exhibition, the people coming and going and how people were interacting with the exhibition as part of participant observation.

4. Research outcomes

This section outlines the findings of each method specified in the first section on research methods.

a. Participant Observation

From participant observation several recurring themes arose that defined discussion during the GCTT event. The first was that of ecology, or the necessity for an ecological approach to TT. This was touched upon directly or indirectly in most of the talks, coming with an acknowledgement that relentless technological progress from point A to point B often has unintended consequences, and that a more holistic, comprehensive approach to TT and technological progress more broadly is important.

Another theme that arose related to the benefits and downsides of TTs, challenging the notion that just because a technology is transformative, it does not mean that it is inherently beneficial. Attendees raised how often Western notions of Technology are assumed as the ideal goal to work towards, and that often these notions have become the norm for ‘progress’ globally, significantly narrowing the scope for sustainable alternatives. The meaning of ‘Transformative’ was also discussed in relation to technology, as attendees debated whether the technologies of today (especially AI) is truly ‘unique’ as a technology or if it is another re-iteration of previous technologies.

A third theme was the relationship between academia and industry, under the umbrella of interdisciplinarity. Attendees acknowledged the benefits of GC’s interdisciplinary approach in attempting to bring together perspectives from different departments at UCL and the small grants offered but questioned the role of academics in influencing the rollout and use of TT’s especially when making funding decisions that often involve reaching a compromise with private industry.

These are three themes that surfaced several times during the event and give a general overview of the issues viewed as salient by attendees. They also represent avenues for inquiry through future events or GC efforts.

b. Exit Survey

The exit survey was devised using Microsoft Forms and circulated to attendees about a week after the event.¹ The survey asked how attendees found out about the event and asked them to rank how relevant and stimulating each section (the opening talks, roundtable discussions and mini-exhibition) was on a 1-5 scale, with 1 being ‘strongly disagree’ and 5 being ‘strongly agree’. Respondents were then asked for further comments.

Of the respondents, most were UCL academic staff, with one postgraduate student. 43% of respondents found out about the event through word of mouth, whilst 29% described finding out through personal contact with organiser². If contact with organisers is considered under word of mouth, 72% of participants found out this way. No respondents described finding out through social media or the Eventbrite page where the event was advertised.

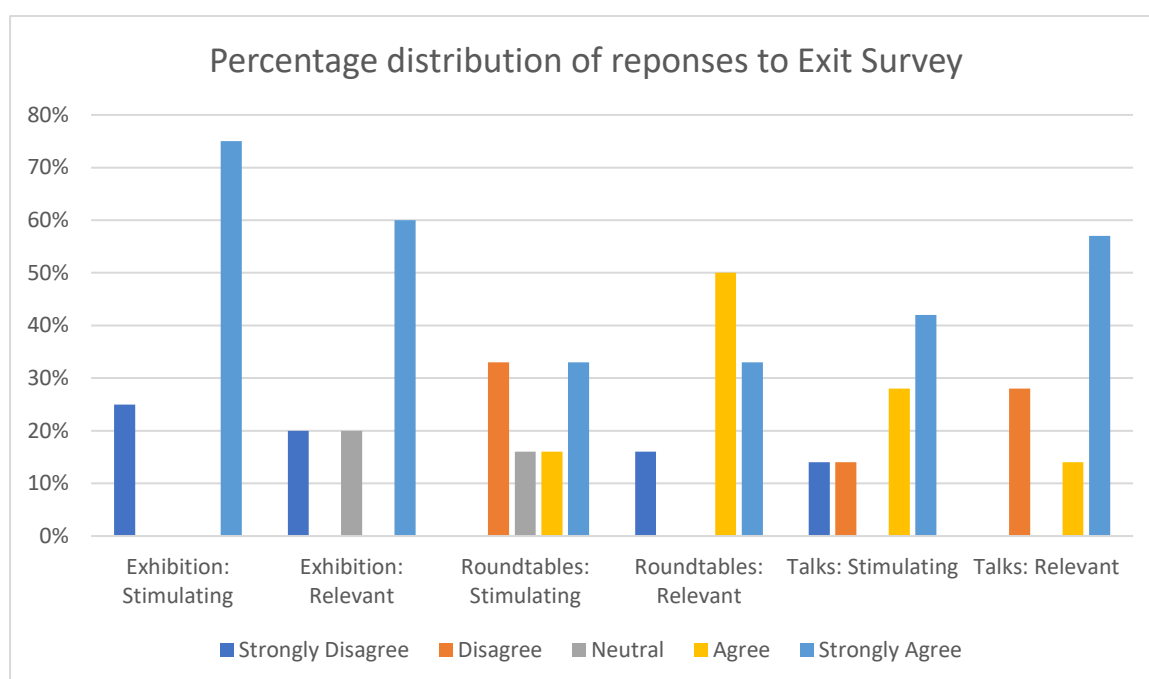
STATEMENT	AVERAGE RATING 1-5	TOTAL AVERAGE 1-5
The exhibition was stimulating.	4.00	3.90
The exhibition was relevant.	3.80	
The opening talks were stimulating.	3.71	3.85
The opening talks were relevant.	4.00	
The roundtable discussions were stimulating.	3.50	3.75
The roundtable discussions were relevant.	3.83	

¹ See link for full list of questions asked: <https://forms.office.com/e/4NmzmbxurH>

² In this instance, respondents selected “other” when asked how they found out about the event and wrote their own answer.

The rankings for how stimulating and relevant participants found each event are shown below as average scores. Higher rankings indicate more participants agreed with the statement, whilst lower rankings indicate less participants agreed.

The average scores indicate that the exhibition was the best-received section of the event by the metrics used, followed by the opening talks and the roundtable discussions. It should be noted that responses for the exhibition and opening talks were more widely distributed – i.e. most respondents agreed or agreed strongly that the exhibition was relevant and stimulating with few strongly disagreeing– whilst responses for the roundtable discussions were more around the ‘neither agree nor disagree’, ‘slightly agree’ and ‘slightly disagree’ options, implying a less polarised opinion; see the chart below for more detail. Indeed, in the further comments section the roundtables were praised with suggestions on how to improve, as shown below.



The final set of questions asked respondents for further comments on the event; for any direct plans they devised as a result of the event; and any thoughts on how the GCTT event might be improved going forward. Answers have been grouped into two categories: those that deal with the content of the event and those that deal with the logistics.

Question 1: Do you have any further comments or thoughts on the opening talks, roundtable discussions or exhibition?

Responses were generally positive, with respondents praising the event and especially the roundtable discussions. Suggestions focused on the accessibility of the venue and the structure and format of the roundtables. Below are excerpts from answers to give an idea of respondents' thoughts:

“The roundtable discussions were a terrific part of the afternoon”

“The main problem was the venue, which does not make it easy for attendees to find and enter”

“Might be better to structure the roundtable discussions around specific Grand Challenges ... assign people to tables in advance and tell them what they will discuss in order to prepare”

Question 2: Do you plan to do anything as a direct result of the GCTT event? Why/Why not?

This question was set up to get an idea of the direct impact of the event. Respondents spoke of how they would follow up on contacts made during the event, as well as how they might integrate what they learnt at the event into their own pedagogy:

“I have been asked to participate in future UCL events”

“Maybe when tutoring my students, I could integrate more critical thinking elements in the course design ... when using transformative technologies like AI”

Question 3: Do you have any thoughts on how the GCTT event could be improved going forward?

This question sought to obtain concrete suggestions on how to improve future events. Again, respondents suggested further discussions like the roundtables, with a narrower focus. Others discussed venues, visibility as well as ambiguity over the GCTT itself:

“More high-profile visibility among senior management, faculties et cetera”

“It was not very clear what exactly GCTT does and how it relates to other activities at UCL”

“Better prior publicity, as too few students and staff knew about it”

“Perhaps host short roundtables – over lunch?”



c. Mini-Interviews

Mini-interviews were conducted in weeks following the event. Each was around 10-15 minutes long and took place one-to-one between me and participants that offered to be interviewed in the exit survey. Three questions were drafted for the interviews:

- 1) How did you find the event? Any comments, feedback, possible improvements?
- 2) Have you any ideas about how GCTT, or TT's more general might go forward at UCL? Any ideas how TT's could connect to research, education, institutional operations – any barriers, challenges etc? Future role of the Grand Challenge in UCL, how focus on it might inspire research, education and operation of the institution, and possible future events?
- 3) Marina and I have discussed the possibility of a publication arising out of the talks, discussions, and exhibition of the GCTT and GCSC when it happens. What are your thoughts on a possible publication? Any ideas as to the format, medium, or whether another way of presenting findings might be achieved? Reasons for/against?

The exact wording of each question was not reproduced verbatim but were adapted based on immediate circumstances and the role of the respondent during the event; for example, interviewees who gave a short talk or ran an exhibition stall were asked more specifically about how the ideas they presented related to the questions. Additionally, as of the writing of this report, some planned interviews are yet to be conducted.

The following sections illustrate the general findings of each interview question respectively:

Question 1: Reflections on the event

Interviewees responded positively when reflecting on the event and were particularly satisfied with the roundtable discussions which they felt offered good opportunities to discuss pertinent topics. Respondents enjoyed the interdisciplinary approach of the event where attendees from a variety of academic backgrounds were encouraged to come together, with one reporting that they had made several new contacts and were pursuing further collaboration.

One respondent commented that the logistics of the roundtables could be improved through more detailed planning. They said that tables could be allocated in advance to encourage intermingling of attendees, adding that it is hard to prevent colleagues from sitting together without planning beforehand, something that could stifle novel discussion.

Question 2: Future of GCTT and TT

Interviewees re-iterated the importance of the small grants offered by GC in supporting the role of truly transformative technologies at UCL. There was consensus amongst interviewees that getting together a range of people from different parts of the university to discuss TT was vital, however that might be achieved. As one interviewee expressed:

It's all about getting UCL's technology makers – engineers, scientists etc. - together with the people who try to make sense of technologies across the social sciences and humanities.

Another interviewee voiced concern over the changing scope of GC and GCTT, especially following the change in GCs by UCL, and how this might affect how we reflect on our progress towards certain GCs, a theme also raised during the event itself.

Several interviewees mentioned about a possible edited book proposal arising out of the talks, discussions, and the exhibition. One of these was to ask how we might demystify transformative technologies and create a practical understanding of these technologies beyond popular or specific disciplinary narratives. This idea has initial support and endorsement from the Dean of the Engineering Sciences and a few other senior academics, students, alumni, and external partners. It is hoped that UCL Press would consider it.

Question 3: Presentation of themes raised

Some interviewees were eager to contribute to a potential publication based on the themes discussed during the GCTT event, especially those that had previously contributed to similar works. One participant instead hoped for more events from GCTT, with greater outreach and effort made to reach potential attendees. They suggested that the website could be cleared up to make the role and function of the GC initiative clearer, adding that specific departmental callouts or emails might be useful for spreading awareness about GC more broadly rather than general callouts through university-wide channels.

Alongside a potential edited volume as described above, one interviewee expressed the value of publishing short history of Grand Challenges and its achievements so far. Another suggestion was for regular publication through a channel such as The Conversation alongside a published text to continue to publish ideas arising from GCTT and stimulate further discussion.³

On a separate note, Marina shared one participant's personal email to her, which provided much food thought for the current structure, governance, and future development of the GCTT and GC more general. This is the excerpt:

"I have mixed feelings about multidisciplinary as an end in itself; ultimately we depend on expert knowledge and experience otherwise we end up with untested generalities. At present there are a plethora of PhD programmes at UCL that insist on multidisciplinary projects to the point that it is getting hard to educate the next generation of specialists. Whilst it is true that some jumps in technology and in the way we live have been associated with combining different disciplines, it is rather hard to predict what they will be in advance. I also think that perhaps the issue is not just about combining disciplines within a university setting but rather about bringing in externals. In general, we need to encourage open and informed debate and discussion, which is difficult when the world is so fractious.

I also think the study of the history of science and technology is both important and fascinating. So perhaps the most important type of multidisciplinary would be to work with historians and archaeologists. Change seems to have been driven (and held up) to a surprising extent by individuals rather than by historical inevitability....

And to truly devote time and effort to these grand challenges we have to be freed up from other responsibilities, principally teaching, and worrying where our next research grant will come from, and recruiting and retaining good people on poor short-term salaries, etc.

A participant made a further point to respond to the comment above that is worth sharing as it illustrates that we need more time and space for discussion and deliberation at UCL.

I agree that it we cannot be "seriously" multidisciplinary (i.e., achieve something transformative through it) without also being an expert in at least one discipline (which takes time and focus), however I disagree with some of the other statements here, which suggest narrowing rather than broadening. It is AND, not OR. The statements about teaching etc. are limiting; teaching is a form of communication that greatly helps creativity in research, in my experience. I am concerned to have this one email printed in full, taking more space in this report than it should, and presenting just one viewpoint.

5. Personal Reflection

This section breaks from the data collection and analysis to evaluate the experience of some of the interns. At the GCTT event, four interns supported the event: as Video Producer, Qi Wu produced a film for the event; as Events Assistant Yuyang Che assisted delivering the event on the day; as Communications Assistant, Sophia Dibbs created social media content and as Evaluation and Impact Assistant, Patrick Worsfold researched and reported on the impact of the event (as you are reading now). All interns were contacted for a short reflective piece on their time, though only Qi and Patrick provided responses, as below.

Patrick Worsfold: Evaluation and Impact Assistant

³ See <https://theconversation.com/uk>

My own position is that of a part-time student of MSc Digital Anthropology, and as such most of my time outside of my day job in a university library is spent learning about and practicing ethnographic methods. Coming from this background, it has been refreshing to get involved in an interdisciplinary effort through GC and to discuss new ideas with faculty and students from departments and disciplines that I do not often find myself in dialogue with.

My role was challenging at first, as it was my sole responsibility to draft and deliver an evaluation strategy for this event, something I had little experience doing. However, over the course of the internship what seemed a daunting task has proven a valuable learning experience and has encouraged me to adapt to challenging circumstances in a real-world professional environment. This has not only helped my confidence beyond the academy but also allowed me to apply Anthropological skills learnt during my degree in the professional world, something that I hope will benefit me as I prepare to graduate next year.

Qi Wu: Video Producer

One of the initial challenges I faced was creating a concise and captivating concept film that effectively conveyed the essence of the event within a 30-second timeframe. Finding the elements for the collage and the appropriate audio was time consuming and I wanted the final product to be an interesting piece. Furthermore, I firmly believe that a behind-the-scenes documentary should be more than just a compilation of impressive shots. It should strive to embrace the narratives that unfold within this remarkable space, where individuals interact and appreciate each other's perspectives. I wanted the longer film to dive deeper into the event to find the storyline of each participant, to vividly portray the content of the GCTT event in a visually compelling manner.

From a technical standpoint, I encountered some limitations during the filming process. Since I could only position one camera, it was challenging to capture close-ups of the participants while ensuring the comprehensive coverage of the entire event. As a result, the editing may appear somewhat repetitive at times. Additionally, the presence of air conditioning posed a difficulty during the recording of roundtable discussions. Despite using wireless microphones to mitigate this issue during presentations, it was challenging to completely eliminate the background noise caused by the air conditioning system.

6. Summary and the future of GCTT

Overall, the event was received positively by attendees. Generally, attendees found the talks, roundtable discussions and mini-exhibition both relevant and stimulating, with praise for the interdisciplinarity of the event. Attendees that were interviewed or responded to the survey indicated that the event provided an opportunity to make new connections across disciplines that may lead to fruitful collaboration. Likewise, faculty attendees spoke of how the event changed how they thought about Transformative Technologies and how they would attempt to incorporate a critical approach to the notion of TT's into their pedagogy.

These findings suggest that GC, and specifically GCTT, is uniquely situated to organise further events to deliver similar or improved outcomes to the event held on the 24th of April. Alongside some appetite for a possible publication based on the GCTT, some attendees indicated a desire for more events oriented around roundtable discussions and more outreach to ensure these events are well-attended by a broad mix including students and staff.

From the data collected, I would propose the following suggestions going forward:

- 1) Host more events, including more informal receptions, for example. Attempt to reach out to specific departments when advertising the events and seek greater attendance from students on one end and senior management on the other.
- 2) The roundtable discussions were frequently praised by respondents, though suggestions were made to improve them. Future events could be oriented around roundtable discussions but with a specific, focused theme, such as AI or responsible innovation that were spoken about during the GCTT event.
- 3) Plan seating arrangements and specific questions in advance for roundtable discussions to encourage interdisciplinary conversations.
- 4) More time might be spent on the introductory talks to contextualise Grand Challenges and Transformative Technologies – though the introductory talks covered these, some respondents still indicated that they were unsure about the precise role of Transformative Technologies going forward.

Appendix A: Detailed account of Roundtable Discussions and Mini-Exhibition

Summary

Below is a detailed account of the roundtable discussions and mini-exhibition based on raw fieldnotes collected during the day. It represents a specific account of my own participant observation from Table 3 during the roundtables and from several hours visiting each stand at the Mini-Exhibition and speaking with attendees and those running the stalls. Conversations from other tables during the roundtables were recorded from the whole-room discussions as well as from Video Producer Qi Wu's raw footage.

Detailed Account – Roundtables

Before the roundtable discussions, attendees broke out for a short coffee break. The discussion here was fruitful with the talks still fresh in everyone's mind; I managed to have a thorough discussion about the presenting the findings of the events as well as collaboration between the University and the Fine Arts.

Interdisciplinarity was a key topic during the event, and with attendees we brainstormed how this might be extended beyond the 'traditional' university to the fine arts: how can the disruptive potential of the fine arts be married with 'traditional' disciplines? What might we learn through continuous collaboration, rather than through singular collaborations such as a day-long event or an exhibition? Is such a thing possible when often it is 'science money' that funds such endeavours? Though we did not find an easy or concrete answer to these questions, the discussion offered a useful talking point going forward.

We then discussed how the findings of the GCTT, and the upcoming Grand Challenge of Sustainable Cities (GCSC) events might be presented. Though a monograph might be an accessible and familiar approach, we considered the benefits of digital presentation and how alternative methods (such as Anna Tsing et al.'s *Feral Atlas*⁴) might offer a better synthesis of different disciplines than an edited volume, for example, which despite the contribution of different disciplines might still reproduce the disciplinary boundaries in the division of chapters.

As we reconvened for the roundtable discussions, we began to think about the first question: "What value can Grand Challenge of Transformative Technology (GCTT) add to cross-disciplinary and cross-boundary collaborations? Any more examples?" On Table 3 we begun by addressing the question of cross-disciplinarity using the idea of the 'T-shaped individual' – a practitioner with a strong 'trunk' in a particular discipline that branches out into others, alongside cross-boundary work across the world, as a core tenet of the Grand Challenges initiative.

We addressed the terminological difficulty of Transformative Technologies as attendees from a range of different disciplines and agreed that TT offers a useful way of 'distilling' a nebula of different concepts and theories into a 'usable format' that is intelligible across disciplines. Alongside this we

acknowledged the value of TT's as 'conversation starters' that allow initial discussions across disciplines, using the example of the self-driving car as a material example.

Our discussion then turned to AI, an ever-present item on the agenda of technology. We attempted to problematise the debate around AI as a unique technology, discussing if and how AI and its surrounding discourse might be similar to other Transformative Technologies of the past, and whether this discourse is any different to the discourse surrounding, for example, human aviation. We attempted to sketch out the challenge of AI so that we might decide how to address it, and how different stakeholders might have different ideas about what the 'big question' is – the UK government, for example, might simply want 'more of it and British,' whilst other disciplines might have different ideas.

One attendee with a pedagogical background in China spoke of the transformative role of AI in teaching in the unique context of China's educational system where modes of assessment are more objective, illustrating the necessity of multifaceted approaches to TT's rather than one conception leading the way and others following. This brought us to the question of 'teaching' technology – how do you teach someone to use technology effectively? What might this look like? How might other ideas contest this?

We paused our discussion as different tables fed back. What started formally soon became a respectful dialogue between all attendees across the room, a sort of larger roundtable discussion that saw many different voices chiming in.

The nature of technology was the first item in the broader discussion. Table 3 first raised the notion of technologies as interdisciplinary conversation starters, but also noted that differing research agendas might render technology 'permanently unintelligible' between disciplines despite our best efforts. This led to comments from Table 4 on the issue of 'leapfrogging' or drawing conclusions from systematic observations on technology without an understanding of the basic mechanisms at play, and how this might lead to troubled futures as innovators fail to comprehend the technologies they work with. Table 1 also noted that, despite arguments for the unchanging nature of technological discourse, the technologies of today (e.g., GM crops and crossbreeding) are still markedly different from those of the Neolithic, for example.

Table 4 highlighted their own discussions on the implicit knowledge of farmers compared to geneticists, asking whether peer-journal publication was necessary for practice to become significant, bringing the discussion back to the recurring theme of the University's role in Transformative Technologies and the importance of the grassroots.

Table 1 discussed concerns of funding, as well as discussing how discourse on TT's can often assume that technology such as AI (in this case, chatGPT) is something that is desired outside of Northern urbanity, challenging the assumed 'goal' of technological progress that the Global North supposes itself to be on the forefront of. Access to technology was also raised as another issue, the meaning of access and what it means to have access to technology.

On a different note, Table 1 also raised the importance of reflexivity regarding Grand Challenges and questioned the change of UCL's Grand Challenges from six to five, posing that it might be wise to instead stand still and reflect on our track thus far relating to the previous Grand Challenges. Both points were bracketed within a broader discussion of holism, and the potential of ecological thinking in relation to AI rather than as a 'race.'

The notion of a 'race' for TTs was taken on by Table 2, who asked what the goal of a TT is – is the goal economic development? Could it be repurposed to other goals? Might it be more practical to 'slow down' and take time to think about AI, its purpose, and what we are using it for? This was juxtaposed by the necessity of funding and the need for the University to pay for itself through collaborating with industry, which necessarily brings one into the 'race.'

Though the first question took up most of the roundtable discussions, attendees were keen to continue discussing – indeed, the responses to the first question seemed to tackle many of the issues that might have been discussed in the latter two. The third question covered much of the same ground as the first one, suggesting that in future events it may be more effective to present fewer, deeper topics.

The roundtable discussions wrapped up with each table contributing broader questions to reflect upon. Table 1 asked a grand question: what do we want to solve with TT's? How do we take responsibility within the University, especially when working with large companies in the private sector? Such calls for reflexivity surfaced often and suggest that future events might focus on precisely this question for productive results. Table 2 spoke of 'mapping a terrain' of technology, of locating the people involved in the development and deployment of TT's and epistemological concerns of how we develop knowledge on technology. Table 4 raised the important point of engagement with undergraduates, an underrepresented group at the event, and how undergraduates are those who will have to tackle future grand challenges, suggesting that future events might shift the demographic that they attempt to attract.

Detailed Account – Mini-Exhibition

After the roundtables, attendees broke out to attend the mini exhibition in North Cloisters. Here we had a stand on Digital Health, focusing on mobile apps used for teaching neo-natal health in communities with low literacy rates; Mycellium structures from Architecture; 3D printed lattices and Hydrogen powered cars discussed in Coppens' nature-inspired engineering talk; fermented foods (sourdough, all sorts of pickles, kvass, kefir and more); a whole host of cheeses next to pieces of Quorn shaped like bodily organs and finally Ziplock bags of medieval grains.

The initial period saw attendees circulate around the stands in equal time and asking questions, though the stands with food or drink were notably more well attended after an afternoon in the OBLL. As time went on attendees entered deeper conversations as those running the stalls set out to see what everyone else had brought along. Despite it being the early evening, North Cloisters saw significant traffic as students slowed or stopped to figure out what was going on or get a taste of the fermented goods on offer. One 'walk-in' stopped to ask about the event; after explaining to her the GCTT event and the upcoming GCSC event, she asked me to keep her informed of details. The exhibition seemed a success for all involved; the curiosity of passers-by being piqued, attendees having a moment to refresh and take stock of the event, network or reconnect with colleagues.