

# **Opening research commissioning to civic participation: creating a community panel to review the social impact of HCI research proposals.**

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In this paper we report insights from the design and delivery of a process that invited distinct groups of citizens to co-develop and apply social impact assessment criteria for the purpose of reviewing research proposals on HCI, social justice and digital technologies. We describe our process, designed to create dialogic spaces that foster critical engagements with technologies and social issues, cooperation and peer-support. In our findings we explore how people defined and contextualised social impact in lived experiences, negotiated and legitimised their role as reviewers, and articulated the value of HCI research for social justice. We reflect on the significance of involving citizens in the commissioning of research that addresses inequalities and social justice in technology design and draw implications for HCI researchers concerned with ethical dimensions of technology. The work contributes to HCI and civic engagement's traditions to develop effective participatory methods and collaborative processes to produce digital technologies that support social justice.

**CCS CONCEPTS** • Human-centered computing ~Human computer interaction (HCI) ~HCI theory, concepts and models

**Additional Keywords and Phrases:** Social justice HCI, design, participation, HCI research, commissioning

## **Reference as:**

Ian G Johnson, Clara Crivellaro. 2021. Opening research commissioning to civic participation: creating a community panel to review the social impact of HCI research proposals. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). NY. ACM, New York, NY, USA.

## **1 INTRODUCTION**

The role of computing in the sustainment and reproduction of (in)equality and social (in)justice is at the centre of public, government and academic concerns today [1,10,19]. Discourses surrounding the introduction of new and emergent technologies into society highlight issues of fairness, and social and technical biases in the systems we design and deploy [31,47,62], and the unintended consequences that these systems can entail, at scale [54,65,84]. In this context, the HCI community is positioned critically, needing on one hand to develop new ways to mitigate negative consequences ensuing from digital innovation and, on the other hand to expand pathways that promote social justice and positive social action and change through responsible digital innovations. This is particularly challenging, because digital innovations and the processes at play in the

production of novel technologies can themselves reproduce and reinforce structural inequality, oppression, and power asymmetries—in other words, they can replicate social injustices [20,37,68].

Research traditions and agendas such as Participatory Design [11,16,53], Feminist HCI [7], Digital Civics [18,73,78,89], and Social Justice-oriented design [20,28,74] have stressed the importance of working with citizens at every stage of technologies design processes that are developed to improve people's life *for* or *with* them. These agendas bring to the forefront more prominently the need to explore and respond to questions of accountability, and more broadly HCI involvement in social transformation processes [1,28]. Here, explorations of ways in which we can make our work more accountable to the communities the research is meant to benefit, has to also include new ways we can support the building of civic capacities to hold HCI researchers and those who develop and implement digital systems to account [5,49]. The design and introduction of novel digital systems into social contexts, which are already unequal, calls for designers to develop effective participatory methods and approaches that can bring together direct and indirect stakeholders and communities of interests, to critically examine unequal socio-technical systems—upon which these technologies are being imagined, as to not reproduce their inequalities. The complexities of fostering civic engagement in design research processes are compounded and augmented by unique challenges when involving new and emergent technologies—such as Machine Learning (ML) and Artificial Intelligence (AI); from media 'hypes' surrounding these systems, including confusion and ambiguity in respect to their capabilities—often leading to deterministic perspectives [33]; to imagining and speculating on the consequences that these might entail in people's everyday lives and diverse cultural contexts, in the long term [86].

In this paper, we explore the design and delivery of a process that set out to open to civic participation the commissioning of novel HCI research aiming to foster collaborative co-creations of novel technologies and social designs in and for social justice endeavors. We worked with a group of citizens, who volunteered to join a 'Community Panel' tasked with developing criteria for assessing the social impact of research proposals and to co-create reviews for research proposals, thus contributing to the commissioning decision-making process of funding allocation. We contribute an exploration of (i) the design and delivery of the Community Panel process, including people's discourses and perspectives on the potential for HCI academics, civic organisations, and communities research collaborations to contribute to social justice; and (ii) the benefits and challenges that inviting citizens to contribute to research commissioning processes brings to HCI and its aspirations to participate in social justice and fairer world-making processes.

Next, we position the work within HCI literature concerned with civic engagement that has developed a range of methods to support critical engagements with technology and the social justice dimension of HCI design. We then present the context of our case study, the design of the Community Panel process, and its different phases. Following an outline of the case study where the design was tested, we present the insights gained from the Community Panel process that involved 27 people across face-to-face and online engagements. We conclude by discussing implications for HCI.

## **2 BACKGROUND LITERATURE**

### **2.1 Engaging People in Research**

The development of approaches and methods to involve citizens in research and digital technology design has a significant tradition in HCI—spanning Participatory Design (PD), co-design and more recently infrastructuring

processes [11,22]. While in more traditional PD approaches, the focus has centred on the artful and attentive configuration of processes to enable citizens to effectively and meaningfully contribute design requirements for a new technology they would adopt [25,61]; the more recent turn to infrastructuring has widened such focus to include the design of socio-technical processes that enable the development of relations and attachments between communities and between communities and institutions for social action, change and service innovations [e.g. 22,75,88]. Specifically, HCI research has built on the principles underlining PD processes to support the broader democratisation of civic life and to actively engage citizens and communities of practice in the co-creation of socio-technical responses to shared social issues and challenges; such work has done so through, for example, supporting forms of social activism [6] and purposely working closely with under-represented and marginalised communities to co-create spaces where they can voice and articulate their own concerns and imaginings of how ‘things ought to be done’ [48,79,83].

There are significant ethical, democratic, and epistemic motivations and principles that motivate these agendas and their push to foster productive collaborations between civic communities and HCI researchers in research processes. The epistemic motivation positions citizens as experts in their own lives and as coproducers of goods and services [73,89]. For example, the Digital Civics agenda puts forward an understanding of ‘users’ as citizens recognising them as people with political rights and obligations, and as ‘local experts’ [2,6,7]; and as such that they should drive the production of knowledge in decision-making arenas for the design of technologies. Here, the value of community-led design collaborations is situated in enabling the surfacing of specific values, aspirations, situated experiences and worldviews that people and organisations hold; as well as the strengthening of existing assets and social innovations they are already working with [17,19,63,88,90], with the aim of integrating them into the design and application of technologies.

Such epistemic framings of collaborations in design research, besides translating in ‘good science’ as “it introduces the potential for empirically derived insights harder to acquire by other means” [8:678], becomes also a matter of democratic politics and an ethical obligation. The first turns attention to the idea that people have a right to play an active role in shaping the technologies that effect their lives, especially if they are to benefit from them [e.g. 12,25,50]; the latter turns attention to the ways technologies are generally designed, developed and implemented by a small section of the global population (generally white, middle class, and male) with their own assumption of what might ‘right’ or ‘good’ for people, and the drastic consequences that this entails for societies and the planet [28,80].

Here HCI researchers have called for the need to review and change our own working cultures, processes and procedures — from seeking reflexivity in research processes [7,28]; to recognising, making visible and responding to power asymmetries in co-design [49,87]; to fostering critical approaches and engagements with technologies [3,72] as ways to question and respond to the structural inequalities reflected in their design [68]. Much of this critical work is representative of, and reflected in, the development of frameworks for responsible innovations [10], social-justice-oriented agendas [29,36] and calls to ‘centre the voices’ of marginalised people [76,77] in design endeavors. Such efforts within HCI seek to actively challenge existing inequities [4,34] and contribute to the structuring of constructive social relations in order to foster the development and co-creation of equitable, caring and fairer digital societies [16, 22, 38, 33].

Acknowledging technology design’s ambivalent nature—the way it can either support or reproduce social (in)justices and the political nature of processes at play in digital innovation research and its outputs (e.g. research artefacts) [2,27,32,47,55,71,72]—HCI researchers have also turned attention to the need to foster

civic engagements that focus on the critical questioning of technologies and information infrastructures and their often invisible political work as a way to foster political consciousness.

## 2.2 Critical Engagements with Technology

HCI research has a history of developing artful interventions and methods to enable citizens to critically engage with the politics of design and socio-technical artefacts, and information infrastructures [30,66]. Here speculative design and design fiction are commonly used as ways to support critical explorations of technologies' societal impact [26,56]. The variety of these approaches is articulated in the more recent article by Wong et al. where they summarise the value and benefits of using particular speculative tactics to support the critical exploration of the socio-political, cultural and economic visions that drive digital innovation and socio-technical infrastructures [91].

HCI researchers have also turned to using academic artefacts and outputs, such as abstracts and papers as productive material and methods to enable designers to engage with the politics and consequences of digital innovations and interventions in Research through Design projects. For example, Blyth's *imaginary abstracts* [13] is a response to solutionist tendencies in HCI and university research pull to produce work that serves the interests of industry and that contributes to particular models of (neoliberal) economic growth. In this work, fictitious abstracts may function as a productive way to foster discursive engagements not only about the ideas underlining and motivating research prototypes but also on the potential outputs, consequences and worlds that (potential) prototypes might generate.

Lindley and Coulton take this notion one step further with fictitious research papers [60], where beyond the production of artefacts implying a fictional story world, they provide fully thought through fictional system for the purpose of fostering discussion about the 'desirability of possible technological trajectories'. These are compelling examples of ways in which HCI can engage its own processes and critically examine its own contributions to particular world-making (and not others). However, despite compelling, these examples bestow little attention to broader civics' involvement and the way any discussions, reflections and explorations done in the course of a design speculation or fiction might translate in shaping 'real life' directions for digital innovation and interventions. In some respect, any actual research proposal can be understood as speculation (in that proposals set up a story-world and ask questions that do not yet have answers) and thus opportunistic materials to engage civics not only in socio-political discourse, but also in the very processes of imagining and populating such story-world. Thus, we draw inspiration from such work—turning attention to the opportunities that research artefacts and processes (such as research proposals) might foster for critical engagements with technological (near) futures and its impacts on societies.

With our particular interest in civic engagement and the role of HCI in fostering the co-creation of fairer societies and enabling people to play a meaningful role in the co-production of technologies that are meant to benefit them, we extend this exploration to the decision-making processes at play in shaping our digital futures, through the commissioning of novel HCI research that aims to support social justice. In this paper, we explore the creation of a Community Panel tasked with developing criteria and conducting reviews to assess the social impact of HCI research proposals. In doing so, we respond to calls to develop pathways and processes to render our work more accountable to the communities it is meant to benefit [9,28] and the widening of civic participation [49,72] in all facets and stages of HCI research processes as an ethical obligation. We contribute to scholarship in HCI concerned with PD and social justice [21], digital civics [24,42,67] and broader civic

engagement through a case study that sought to explore civic participation in decision making processes of commissioning novel HCI research that supports social justice and the co-creation of fairer world-making processes [19,28,37].

### 3 CASE STUDY

Our study unfolded in the context of a network project based in the UK—Not-Equal [20], which aims to foster collaborative explorations of the ways new and emerging digital technologies can be designed to foster social justice, through a programme of activities. The study reported in this paper, focuses on one of these activities—the ‘Open commissioning’ programme where teams of cross-disciplinary academics and non-academic partners were invited to co-develop and submit research proposals exploring both responses to social justice issues in technology design and its implementation and ideas for novel HCI research that can foster social justice. As such the programme included a membership of over 100 academics from HCI and other disciplines and over 40 organisations from industry, the third sector and public sector interested in forming partnerships to explore how digital technologies might support social justice through HCI research projects.

The ‘Open commissioning’ process included the following stages: (i) developing a call for proposals which included the development of criteria for social impact with a group of citizens representative of communities of interest, brought together to form a Community Panel; (ii) issuing the call for proposals that asked for responses to emergent technologies (e.g. AI, sharing economies, digital security) role in social justice and required collaborations between academic and non-academic partners; (iii) research proposal submission deadline; (iv) reviewing process where proposals were reviewed by academic experts (Expert Panel) and a Community Panel—made of citizens brought together for this purpose; and finally,(v) funds allocation to successful projects, based on reviews and scores from both panels.

In this paper, we report on the process of creating a Community Panel and designing its activities, which included two distinct stages. The process involved convening two diverse groups of citizens, the first tasked with co-designing social impact criteria for the call for research proposals (as per stage (i) of the ‘Open commissioning’ programme); and the second, tasked to review research proposals submitted in response to the call (as per stage (iv) of the ‘Open commissioning’ programme). We received ~45 proposals, which were first reviewed by the Expert Panel, and filtered down to 20 proposals that were submitted to the Community Panel. The reviewing process resulted in seven projects being funded. Research proposals included a chatbot for charities supporting women experiencing domestic violence, security data infrastructure for migrant women, and a toolkit to support young people recognising fake news.

Next, we outline the methodological approach that we adopted to design the research methods and the Community Panel process—including recruitment and its activities.

#### 3.1 Our Approach

Our approach to the design of the Community Panel is grounded in the principles driving Participatory Action Research (PAR) [52] and more specifically the critical pedagogies of Paulo Freire [41]. Freire’s pedagogy is articulated in four interconnected principles: *praxis*, *dialogue*, *critical consciousness*, and *context*. Praxis entails reflection and action that is directed at the structures that needs to be transformed. Dialogue is understood as cooperation in a shared endeavour and a critical aspect of praxis; and as a form of intervening in the world. In other words, it is through dialogical shared activities that we come to reflect and act in the world in ways that

are or can be transformative. Critical consciousness refers to the process of developing awareness of the way the conditions we live in are connected to larger societal structures; a process through which we come to terms with our own values and use these to guide transformative action. Developing self-consciousness thus, is a critical aspect of people's ability to change themselves and the world. Finally, any social transformation must be situated in people's contextual realities and lived experiences. Indeed, it is this contextual particularity that provides the relevant issues and topics to be explored.

Applied to HCI research, this methodological approach outlines ways to conduct research with people with explicit socio-political aims of social emancipation and transformation by fostering opportunities for people to explore and analyse the way their lives are connected to wider socio-political structures and power relations, through fostering conditions for the co-production of knowledge to inform HCI design.

In line with this methodological approach [41], our process of creating a Community Panel included the following principles and aims. (i) Contextualisation; fostering opportunities for panel members to relate and contextualise their lived experiences with technologies to the broader issues of social justice and technology; we wished to support panel members to talk about their own experiences of digital technologies and use their knowledge to define social impact criteria and then write proposals reviews. Inviting panel members to connect their lived experiences to broader societal issues ensued by digital innovation sought to encourage them to consider their voices as legitimate in the commissioning process; and to support critical engagement with the way innovation is bound up with particular world-making processes that are or can be (un)just. The second important principle driving our approach to design was (ii) fostering multiplicity and plurality; in the creation of dialogical spaces; we wanted to expose people to different worldviews and experiences and in this way foster a critical process of negotiation that challenges pre-existing and 'fixed' worldviews in both the development of criteria and writing the reviews. Linked to this, the third principle informing our design entailed the (iii) creation of the conditions for dialogue and cooperation; by privileging opportunities for participants to express their opinions confidently and be listened to and valued, we wanted to foster a peer support atmosphere between participants for honest and open dialogue characterised by mutual respect and relaxed cooperation towards the common goal of commissioning novel HCI research that supports social justice.

Next, we describe the methods that formed the design of the Community Panel process, detailing its structure, phases and recruitment process.

#### **4 METHODS**

The Community Panel process comprised of two phases. In the first phase of the process, we convened a group of 7 participants with the aim of co-developing a shared set of criteria to evaluate the social impact statements of HCI research proposals. The first phase included two face-to-face workshops. These criteria were then added in the call for research proposals. In the second phase, we convened a group of 20 citizens who applied the social impact criteria developed in phase one, to assess and write reviews for research proposals. The second phase took place virtually using video conferencing technology and collaborative writing technologies comprising of a mixture of synchronous online 'team meetings' and asynchronous individual tasks. Through its two-phases, the Community Panel process served to open up civic participation in co-designing and establishing the rules and values underpinning the assessment of proposals (e.g. through the development of criteria), and decision-making process for funding allocation (e.g. through the reviews).

## **4.1 Recruitment**

For both phases of the study we recruited participants through our existing membership of non-academic partner organisations from third sector, public sector and industry, as well as through an 'open' call for participation published via our project's social media pages. The remuneration for taking part in the panel was vouchers to the value of £100. Before starting recruitment for the Community Panel, we gained ethical approval from our institution. We also discussed our proposed approach to recruitment and Community Panel process with our partner organisations. This was done to ensure that the approach reflected their ethical and moral standards, in line with their best practices for working with vulnerable people.

Interested participants were invited to apply by filling in a short online form indicating their motivation for taking part, and information about their background and experience. We also asked our partner organisations to identify and invite service users and staff within their organisations that had relevant experience of the social justice concerns characterising our commissioning call. In addition, our partners helped pinpoint any potential barrier to participation—this was particularly salient in the second phase of the Community Panel as this was planned to be delivered entirely online due to the Covid-19 pandemic. As such, many of the beneficiaries of the charity organisations we wished to invite to join our Community Panels did not necessarily have regular access to devices, connectivity, skills and knowledge required for online participation. Where such barriers were identified, we worked with partner organisations to respond to individual needs (e.g. provided hardware and access to internet). Yet, much of the procurement of resources could not be directly accommodated through our institution's processes. We were not permitted to purchase anything telecoms-related without going through the university's telecoms service or on a registered university device, and due to the pandemic only 'business critical' purchases were permitted, meaning we could not purchase new hardware. Therefore, the research team had to source and finance equipment using personal accounts and personally mailing out additional data bundles and hardware to participants. We received 19 applications for the panel in the first phase and 38 applications in the second phase. Across both phases, our panel included a mix of 'service providers' and 'service users' from a myriad backgrounds, age, gender and heritage, with a range of first-hand experiences of dealing with or living with the issues and concerns of our social justice in the digital economy research agenda. This included forced migration, domestic abuse, unemployment, poverty, disability, and people with multiple complex needs including addiction and mental ill health (specific details about proposals are documented in section 5 where appropriate).

## **4.2 Community Panel Process and Activities**

In this section, we provide details of the activities and methods that made up each phase of the study.

### *4.2.1 Phase One – Creating and Testing Criteria*

The process of developing social impact criteria for research proposals unfolded over the course a two-day workshop, which was structured around the following four activities. Before the workshops, we sent participants a booklet providing a step-by-step guide about the workshop sessions, and information about the Open Commissioning process. The booklet also included an accessible version of Sen's Capability Approach and Nussbaum's list of Central Human Capabilities [69,70], as a way to prompt reflection and introduce the language of values and freedoms in relation to technologies in everyday life.

*Activity one: define technology and social justice.* The process began with a simple warm-up activity aiming to allow people to share and hear different perspectives on what technologies, social justice, and human rights might mean to them. Panelists were split into four smaller working groups and were also invited to think about the relations between technologies and people's ability to achieve what they valued to do and to be in everyday life. As part of this activity, panelists were invited to consult and refer to their booklet and Nussbaum's list of Central Human Capabilities. Discussions were led by facilitators within each sub-group and focused around simple questions such as, *what technologies do we encounter in our lives? And, what does justice mean to you?* Discussions in this first activity included definitions of individual rights, data protection and privacy, and conversations about software and hardware, digital services and platforms people used and the different devices and technologies they used to access them. Facilitators and participants took notes on A1 sheets of paper, which was used to present a summary of the discussions from each sub-group to the whole group.

*Activity two: Story sharing and mapping activity.* Following Freire [41], the second activity begun with panel member's articulating their experiences with technology in their everyday lives. Panelists were invited to share stories or personal experiences with technologies within their group and then choose one significant experience to 'map' using the 'origami storyboard' method [64] which asked them to chart the people, places, institutions, and artefacts involved in their story and the connections between them.

*Activity three: active listening and thematic clustering activity.* Each panel member then talked through their mapped story, while the rest of the sub-group took notes of the key ideas and issues that the story surfaced from their perspective. These notes were then added to a pile in the centre of the table. Once all stories were shared and all notes added to the pile, each sub-group worked collaboratively to cluster the notes into an affinity diagram. To create the affinity diagram groups were instructed to cluster together notes into thematic groups, then give each cluster of notes (or theme) a name and short description, which they then presented to the other groups. By the end of this activity each sub-group had constructed between 6 and 10 themes that reflected values and issues from their personal stories.

*Activity four: Developing and refining criteria.* Each group used the affinity diagram to develop 'should and should not' statements for technology innovation. This activity was structured so that each statement was noted on a separate card, which were then ranked in order of importance to the group in terms of social impact. During this process, the lowest ranked statements would be discarded, leaving only the top five statements to be considered for further discussion. Then one person from each group took the top ranked statement to another group, which was tasked to reevaluate and reorder them discarding the lowest ranked statement, leaving only the top four. This process repeated until each group had only one statement remaining. This left four statements (one per each sub-group). These four statements became the basis for the final social impact assessment criteria. During the second day the criteria were refined through a process of group dialogue, then tested on research proposals, and further refined. The final three criteria are that research proposals should: (i) Consider and respond to the needs of a community; (ii) Help to reduce barriers to participation and involvement in technology and services; (iii) Support community cohesion.

#### 4.2.2 Phase Two – Using Criteria to Review

In the second phase of the Community Panel process, our 20 Community Panellists were grouped in 5 teams of 4 people. Each team was allocated a facilitator who was responsible for taking care of the team, creating channels for intra-team communication, sending out individual tasks, and preparing content for the three

scheduled 90-minute team meeting sessions. The overall process unfolded through three cycles of action and reflection. In each cycle, panellists were given an individual task to conduct in preparation for a team meeting featuring collaborative activities (e.g. three individual tasks and three team collaborative tasks). The mixture of synchronous online 'team meetings' and asynchronous 'individual tasks' were designed to encourage reflection and support flexibility by diversifying the modes and forms of participation (e.g. individual tasks could be carried out in times that were more convenient for the participants).

*Cycle one: Exploration of technologies' social impact.* Panel members were sent an information pack at the start of the process and were invited to introduce themselves to their team. The pack included information about the commissioning process, and a video explaining its core topics (e.g. social justice and digital technologies), as well as instructions and materials to carry out the first individual activity. This included a short fictional proposal for a digital innovation, an assigned role, and a set of questions to consider in relation to the proposal. Panelists were first invited to explore the digital innovation proposal by responding to questions, for example: *whose needs are being addressed? who benefits most and least from the proposed technology?* The questions in the individual task were inspired by the concerns of the commissioning call, and based on the social impact criteria developed in phase one of the Community Panel process, which was mirrored in the second task and final review template. Turning criteria into critical questions and utilising them in different ways in activities was purposely done to enable panel members to familiarise themselves with the criteria and themes of the call, but also to utilise them as analytical guidance head of the synchronous collaborative sessions and the peer supported review writing activity in the final session.

In the second part of this task, panel members were invited to consider the digital innovation proposal from a different perspective. To this end, they were assigned a role (technologist, policy advisor, social justice advocate, and community consultant) and asked to consider what (in their role) excited and worried them about the proposed technology. Finally, panel members were invited to formulate a question about the proposed innovation from their own perspective. Responses to tasks were collated by facilitators in a presentation and displayed side by side on screen during the team meeting, acting as a visual structure for the sessions.

At the end of the discussion during the first team meeting the session moved onto collating lists of *do's and don'ts* for new technologies based on the prior discussion of the proposal for a new technology. This was intended to bring the discussion from the specific issues identified with the fictional technology to higher level shared values, ideas, concerns, and hopes. This list was collated by the facilitator and displayed on the shared screen. During the last part of first team meeting the list of do's and don'ts created by the team was then cross-referenced with the three social impact criteria. This process was facilitated through a discussion on the ways their list of values was represented (or not) in each criterion. Panel members were then encouraged to critically question and articulate their own interpretation of the criteria, highlighting any gaps or important aspects that were perhaps less explicit in their understanding of social impact criteria.

*Cycle two: Understanding the proposals.* After the first team meeting, panel members were sent their assigned research proposal by their facilitator. They were instructed to familiarise themselves with the proposal, focusing on the Project Summary and Social Impact sections, although they had access to the whole proposal which including sections including a case for support, work plan, and budget. They were also sent a second 'individual task' which mirrored the format of the first individual task—whereby questions and prompts were designed to encourage critical thinking and support panel members to bring their own experiences and expertise for the team meeting. As in the first team meeting, the responses the individual tasks were shared side-by-side

during the team meeting to shape the discussions, in allow panel member to introduce their assigned proposal to their team.

*Cycle three: Peer-to-peer supported review writing.* At the end of the second team meeting, members of the panel were asked to write a draft review ready for the final team meeting. This final 'individual task' was a review template document with two opening questions which asked panel members to summarise the proposal and its importance from their perspective, then consider three questions (addressing the three social impact criteria). Each panel member received a different proposal for which they were responsible for writing the review, but these each proposal discussed within the team, and in the final part of the session panel members were put into pairs for a structured peer-to-peer support session where they effectively reviewed one another's reviews using criteria we provided (e.g. Is it clear & concise? Do reviewers back up statements? Is it fair? Does the review point to strengths and weaknesses? Etc.). During this process of writing suggestions and comments, each pair engaged in dialogue and were encouraged to ask questions and give explanations. Panel members were then given a further five days to complete their individual review of the proposal where they could integrate or disregard the comments and suggestions from their team members. During this time, they could contact each other for further peer support and ask the facilitator questions using the communication channels set up for the organisation of the panel.

### **4.3 Data and Analysis**

The data collected across activities in phase one and phase two of the Community Panel process formed our data corpus, which included 26 hours of audio recording from phase one (4 tables x 5 hours from day 1 and 6 hours from group discussions from day 2); 22.5 hours of audio recording from phase two (3 x 1.5-hour sessions x 5 teams); 20 written responses to individual tasks and the reviews themselves. We used Braun and Clarke's reflexive thematic analysis [14] to analyse the data corpus. This involved both authors becoming familiar with the data corpus by individually reading transcripts from both phases of the study, as well as the task responses and reviews from phase two. Each author first assigned preliminary 'descriptive' codes to part the data corpus, before passing them on to the other author for review. We then constructed initial themes by looking for patterns in the descriptive codes in the data. Finally, we refined these initial themes through a process of iteration and discussion before defining the final themes.

## **5 INSIGHTS FROM THE COMMUNITY PANEL PROCESS**

In the following we present the insights that were generated from our analysis of data comprising the Community Panel process. These are articulated in four themes: *Becoming a Reviewer*, *Searching for Honesty and Trust*, *Tensions and Carelessness in Digital Innovation and Research*, and lastly, *(Re)conceiving Impact and Entangling Who and How of Justice*.

### **5.1 Becoming a Reviewer**

In this section we uncover the different ways our participants embraced and made sense of their role as reviewers, and the legitimacy, power and responsibility that comes with it. We explore the way panelists used their own experiences to justify criticism, "safeguard" their own communities and question diversity in the research methods. We examine how the process was itself a journey of discovery and learning, leading to reviewers becoming advocates for issues they were not previously aware of. Finally, we report on the power

dynamics at play during the process and the way group dialogues and peer-to-peer activities in the second phase supported panelists' confidence and the development of a critical, yet constructive stance in reviews.

The design of our process positioned panelists as experts in their own lives and domains of concerns and asked them to use their own experiences to formulate suggestions and criticism to proposals about research on innovative technologies and social justice. Drawing from their personal experiences gave them confidence to comment on a chosen method or point out a gap in the proposal. By enabling them to draw directly from their own experiences and imagine themselves as participants in the project, panelists often raised concerns about the welfare of participants in the proposed studies from a place of empathy that challenged assumptions in the proposals. For example, P4, who identified as a migrant, used this to justify critical concerns they had about a proposal focusing on supporting migrant women through the use of social media technologies: *"As a migrant I am fearful of using social media because of safety concerns. [In the proposal] There is no mention of how restoring [migrant women's] confidence in using technology would be achieved"* (P4)

Panelists used their experiences to also raise concerns about proposals' chosen methods and the extent to which these would support meaningful participation. Panel members were cautious also towards proposed approaches outlined in proposals, and articulated this by making it clear that, unlike researchers, they experienced the issues in the proposals first-hand and on a day-to-day basis. This was often articulated and conveyed with a sense of disappointment that proposals failed to consider factors our panel thought were obvious. For example, P1, who worked for a charity supporting disadvantaged young people, raised issues with a proposal's method, which intended to co-create a toolkit to help young people recognise fake news, by working with large groups of students over four online workshops: *"That's not going to really allow for children to really express that individual viewpoint, you'll end up just having children sitting at the back, who would miss out because they're just doing what kids do at that age... And I know that because of Covid-19 a lot of this mainly has to move online and we've been working with some young people online and actually trying to engage them online is a whole different ball game"* (P1)

P1 was concerned that the approach may not create the conditions for each young person to meaningfully participate in the process, and that proposal did not show an in-depth understanding of the challenges that working with particular age groups entails. Personal experiences then provided the grounds for criticism but also gave panel members opportunities to legitimise themselves as reviewers. In this way, reviewers also showed a 'duty of care' to represent or safeguard 'their' communities (their needs, experiences, values). This was sometimes expressed in more overt ways as a 'warning' or through raising explicit concerns that a proposed project did not put enough safeguarding measures in place for the people the research was meant to 'help'. For example, here P3, a human rights campaigner raises concerns about a proposal exploring role of chatbots to support victims of domestic violence: *"The proposal should offer additional counselling support to those victims/survivors they talk to. The interviews could be triggering, and it should not be expected that they can be given easily. It would be more supportive if the interviews were carried out by professionals in the field."* (P3)

P3 here highlighted how the proposed project was not only likely to cause additional harm but was also ignoring important existing knowledge and expertise. Despite some reservations and criticisms about methods and approaches in proposals, panelists also showed enthusiasm for proposals drawing from their experiences; or sharing ideas for ways in which project outcomes could be used explicitly indicating that the particular sector they were working in, would be waiting to read about the work, and asking to be kept informed about the project. As well as encouraging the use of personal experiences to review proposals, our process also encouraged

participants to also 'look up' things they didn't know about (e.g. topics, research methods, the way technologies are entangled with social justice issues. etc.). Learning and developing understanding about social issues brought about by digital technologies and relating these to their experiences and knowledges, helped panelists develop their confidence further, offer specific critical advice and comments, and in some cases advocate for issues tackled in a proposal. For example, here P11 comments on a proposal tackling gig economy workers' rights: *"I wasn't really familiar with a lot of it. I've had to Google a few things, so it helped me understand with what's being said in my proposal, I didn't really know what gig work was [...]. So, I've actually learned a lot. I actually feel quite strongly about it now. [...] People are being taken advantage of when all they want to do is work and provide [for their families]. They are in a constant race against time and other workers. All the while, data is being collected to which they have no knowledge of or access to. Neither do we as the general public. Workplace surveillance and constant pressure to hit a target you can't define, is wrong."* (P11).

The Community Panel activities then appeared to be effective in facilitating panelists to develop a political, moral stance towards social issues in and through digital technologies as much as supporting them writing a review.

In both phases, panelists valued the way activities were designed to structure and support a step-by-step process of understanding and analysing digital innovation's role in social justice, in relation to their lived experiences, their personal values and what they considered important. Grounding activities in lived experience was critical in asserting from the outset what they could contribute to the process. Indeed, the individual task (phase two) that asked panelists to consider an aspect of a digital innovation from a different perspective (e.g. technologist, policy makers, etc.) to help them think about the range of actors and values involved in innovation endeavors—was paradoxically considered as limiting or restricting the value of their contribution. The repetitive structure of synchronous and asynchronous tasks (in the second phase) meant that panelists had space for personal reflection and could try and test analytical processes both individually and in collaboration with peers. This in turn gave members further confidence and assurance in writing their review, including having the opportunity of having their views endorsed and validated by peers. Here panelists comments on both individual and group activities: *"If you just sent the proposal, I might have skimmed over it, but by doing the individual exercises, it made me think more about it. So, I had probably more to contribute that I would have otherwise"* (P16).

The online group activities were valued for the ways they encouraged dialogue and a multiplicity of perspectives, where the process of justifying opinions to someone else, seemed useful in developing a critical, yet constructive stance, enabling panelists to reevaluate their initial views, or into asserting perhaps, a more 'honest' review: *"what was good about our session was that we were all working on the same thing together and kind of able to then see something critically from lots of different perspectives"* (P3).

Although the majority found value in the peer-to-peer review writing process, not everyone found it equitable where on occasion those who were more educated, senior in their role, or with English as a first language were positioned by others as a more authoritative voice or opinion. For example, below P17 reflects on the way they felt their role changed during this part of the process from participant to coach or tutor; suggesting that they would have appreciated a more reciprocal relationship in their peer-support group.

*"I think it might have been better if I'd had more people in the room where if they felt they had a specific comment to make they could make it. [P18] just loved everything I'd written, which was fantastic"* (P17)

P17's considerations speak of the existing uneven power dynamic between panel members and their diverse 'status'. While our process relied on panel members supporting each other, at times this appeared to have been felt as a sacrifice or burden. At the same time, the diversity of contributions panelists could make to the reviewing process and to support one another—meant that different panelists offered to read and comment on one another review and proposals across allocated teams and peer-support pairs.

Overall, panelists embraced their role as reviewers and through the process recognised and asserted the value they could bring to the process because of their lived experiences. However, some panelists felt uneasy with the power and responsibility that comes with writing a review and providing 'scores' that would determine whether a proposal would be funded or otherwise. For example, P7, below refers to a sense of relief that responsibility was not entirely be in their own hands: *"I was pleased that we are not the final arbiter, that somebody else, hopefully, with a bit more understanding is taking what we've said and making the decision."* (P7). On the other hand, other panel members were so enthused by the process that they made different suggestions as to how the Community Panel process could be opened to more people in their communities and as a way to (re)distribute decision-making power and responsibility further. For example, participants suggested that given more time, they would have happily 'solicited' the views of several groups in their communities who may be affected by the issues in proposals. For example, P12 who reviewed a proposal about detecting cyber violence against women and girls, wanted the opportunity to speak to members of a community group they attended about the proposal before writing their review: *"we have what we call the we have the BAME community [...] so one might be able to say, 'what do you think?' Their views should be solicited."*

In the process of 'becoming a reviewer' our panel members worked with and attended to the responsibility and power that comes with the role in different ways and on different levels. Initially panelists had to recognise the power and value of their lived experiences and use it to make assertions about the potential impact of research proposals. Individual reflection, group dialogues and cooperation supported them to develop the confidence to do so. This included mentoring others when needed, learning about issues and developing moral and political stances about issues they could advocate for, as reviewers. However, just as there was ambivalence about the burden of responsibility that comes with power; there was also enthusiasm about the possibility to (re)distribute further such power and responsibility by opening the review processes of research proposals to the individuals and communities they were representing.

## **5.2 Searching for Honesty and Trust**

In this section, we explore panelists' expectations for proposals tackling social justice in and through digital technologies. We show the importance panelists invested in the need for evidencing civic participation in the production of the research proposal and study; their search for honesty in proposals articulations of technologies' social impact; their ambivalence in respect to equity in research partnerships between academic bodies and industry or third sector organisations; and their perceptions of academic researchers as detached from the realities of communities their research is meant to benefit, leading to alienation and sometimes lack of trust.

The provision of evidence that research proposals had been co-produced with the affected communities, and proof that the potential negative consequences of research projects had been considered—were both very important for our panel. Some panel members, particularly those familiar with proposal writing due to their work experience, felt the purpose of the criteria was to demand proof; while others members thought the criteria's

aim was to inform project planning and invite researcher to reflect on important aspects. In the development of criteria, panelists engaged in a lengthy debate about the need for applicants to provide proof of the involvement of relevant communities in the research proposal, and the difficulty of disclosing potential problems or negative impact of any research project in the context of grant proposals. This debate became ultimately about a question of whether researchers could be trusted to be honest in their proposed projects. Below we report a short extract to exemplify such debate: *“if I’m writing a proposal for money, I’m not going to say the negative impacts on anything, that’s the bottom line.”* (P27)

While P27 considered that criteria should ask only for things that could be proven, P25 suggested that it was important to ask for negative impact as it would at least make the researchers have to mention it in the proposal, (even if the researchers could not be trusted to be too honest): *“Yes, but if you say, ‘consider the impacts on the wider community’, you’re forcing somebody to think, ‘Yes, I know that this is going to happen, but I’ll dress it up as a positive’.”* Interestingly, P22, who agreed with P25, suggested that a ‘risk assessment’ approach could be taken: *“I would trust somebody more who identifies the potential negative impacts and actually puts some sort of contingency plan in to say, there is a possibility this could happen, however, if this does occur we will implement X, Y and Z procedure.”*

This approach, which would ask proposals to include potential negative impacts, was valued by the panel for the way it prompted researchers to not only consider and disclose negative impacts but show honesty in their accounts. However, panelists found that an in-depth and attentive articulation of unintended consequences was largely lacking in the proposals.

Another critical aspect of the way panelists assessed research proposals was the extent to which these fostered meaningful participation. Evidence of inclusion of affected communities in the proposal and their participation in the research process was connected to a lack of faith that researchers or any research activity would otherwise have any positive impact. Panelists then spoke favorably about proposals that included participatory methods linking this to values of ‘trust’ and the potential positive social impact of projects. In other words, the more participatory the project — the more the researchers could be trusted, and the more positive social impact it was thought the research would potentially ensue. Panelists were concerned that those projects that did not include the ‘right’ people, at the ‘right’ time would end up addressing the ‘wrong’ problems, and were therefore at risk of creating unintended negative consequences for the communities they aimed to support.

During the development of the criteria, the need for proposals to show evidence of how the needs of a community were identified and incorporated in the plans of the research became critical. *“I think if they say, we’re doing something for young people, and they’ve got no plans at all to talk to young people, to involve young people or to bring to the table a piece of research that’s well regarded [by young people and] that’s about young people’s needs then what?”* (P23).

Thus, panel members considered participation as pertaining to all aspects of research—in the way that even research outputs had to ‘speak back’ to the communities the research involved. Panelists, then, valued proposals that showed evidence of meaningful participation in their planning and their articulation of the issues in the proposals. Here issues of representation, articulating issues on behalf of communities and notions of ‘voice’ surfaced multiple times in discussions, as the quotes below exemplify:

*“[...] whilst the primary benefit of remote learning should be young people, their voices are arguably absent in this proposal. Instead, their views are represented through the lens of teachers and parents”* (P19).

*“I think this could have been improved by co-designing the proposal with those communities of interest, so that people were in control of articulating their own problems” (P5).*

A critical value of research projects that tackled technologies and social justice was the very spaces they may open to enable people to articulate the concerns any technology should respond to, in their own terms. Panelists then were critical of proposals that were deemed to include either the ‘wrong’ participants or participants at the wrong times in the research process. In this sense, our panelists believed that communities should not simply be involved as ‘mere’ research participants once all decisions about the research process have been made; rather they should be involved in the planning stages of the project as a way to support communities also defining the problems the research is meant to tackle:

*“it will be necessary to get the inputs of the people for whom your research proposal is about. [...] You want to help the community by your proposal or a group of people by a proposal, it is very necessary that most people are involved, involved in the design of that proposal. [...] You should know what they want. Don’t assume.” (P10).*

As such, evidence of community involvement in the research proposal and the research process was reassuring panelists that the proposals were genuine, that researchers valued existing knowledge, capacity and assets in communities, and that they could be trusted to work with people in an open-ended, processual way. Our panelists regarded communities’ abilities to sort any problems themselves if they were given the resources and the conditions to do so. As such panelists considered that appropriate research proposals should not pre-empt solutions, but rather work with communities to co-create responses to issues and thus truly empower the people they wished to support. For example, panelists questioned proposals that featured novel digital solutions to community issues, that appeared to have ignored local expertise and assets. Here P17 reflects on a proposal that aimed to build a digital tool to map care and support systems: *“ It would be appropriate to keep an open mind as to whether the community could find their own way to run the exchange using existing assets, i.e. community capacity builders, and existing community networking skills, and whether there is a way to develop the network using existing mapping tools in conjunction with existing community assets.”*

In the course of the Community Panel, participation and participatory methods became the principal way panelists assessed the ‘honesty’ and trustworthiness of proposals and researchers. Furthermore, participation was not just seen as ways to avoid harm or negative impact, or as ways in which researchers could prove legitimacy; but they were more strongly seen as way to ensure genuine positive and meaningful impacts in the long term. For example, in their review of a proposal to work with young people to develop an online tool to recognise fake news, P1 showed support for the proposed participatory methods, linking it to the sustainability of the project: *“it ‘will not be done ‘to’ our community but done ‘with’ them’. An aim I fully agree with and support, as working with a community will create trust, unity and also help to build something that is meaningful and sustainable for the community.”*

Yet, participatory processes were linked also to other values, such as inclusion and diversity, not just better research: *“As it will include a wide range of participants, the research will, therefore, be co-produced and reflect the experiences of all parties. Thus, ensuring it is inclusive and diverse.” (P11).*

Conversely Panel members articulated distrust in researchers’ intentions and motivations, when proposals appeared to cover pre-defined concerns or put forward technology they simply wanted to research or test, disconnected to what panelist felt were the real-world problems or real-world impact. In this way, proposals that did not give equitable space to talk about the community partner and articulating who would benefit from the

research, would be penalised. For example, P18 questioned how equity in a collaboration between a UK university and a civil society organisation in Africa translated in its budget: *“So, there’s a degree of vagueness in the who’s doing what and when or they have some very professional individuals, but the man days or man hours or they’re spending on it is unclear. Well, I wonder what guidance the Africans [partners] had.”*

In some instances, proposals including collaborations with industry partners appeared to prompt more distrust as there were concerns that industry partners might take advantage of third sector partners or ‘communities’ and ‘users’; or use the research to monetise projects. Panel members suggested the introduction of ‘independent bodies’ to protect communities’ interests.

In this section, we have seen how panelists evaluated honesty in research proposal according to the extent to which negative impact or unintended consequences were articulated, and the degree of civic participation and community voices in the definition of the problem space and the proposed research process. Proof of participation became a way in which panelists could develop trust in researchers’ intentions and in any proposal’s potential positive and sustainable social impact. The panelists questioned equity in proposals’ partnerships and showed a distrust towards researchers and industry partners in research projects. The articulation of distrust was entangled with notions of the way unintended negative consequences could be first recognised, and second, mitigated through the inclusion and participation of different community stakeholders.

### **5.3 Tensions and Carelessness in Digital Innovation and Research**

In this section, we investigate tensions in social justice academic research, and the perceived contradictions within academic cultures by our panelists. We also explore, how panel members often articulated digital innovations as “careless” and cruel for some communities. This carelessness was sometimes identified in the methods presented in the proposals and in an apparent lack of deep understanding of the communities that projects allegedly meant to support.

In the first phase of the process, participants spent some time reflecting on their personal stories, discussing similarities and shared values in their sub-groups. Discussions pivoted around the way digital innovation increased or played a role in producing new forms of inequalities in society along lines of age, gender, and social class, and perceptions of people feeling ‘left behind’ or alienated by changes imposed by digital innovation. This was exemplified by banks moving from high streets to online banking and “a cash-free society”; software updates on mobile phones making old models obsolete; and the push in government services in the UK to ‘digital by default’, whereby all essential services could now only be accessed digitally. *“[There’s] an assumption about, well everybody is doing it this way (online) now so we have to switch”* (P23). Panel members discussed how digital innovation appeared to be forced upon people, giving them no choice but quickly adapt to changes or remain ‘excluded’, which was described as deeply unfair and ‘unkind’:

*“not everyone wants to keep up...expectation is that everyone will embrace innovation [...] it’s like the lag and the people who are left behind who are often having to pay more and earning less in the first place...and society doesn’t pay any attention to that...and it’s like look at all this great stuff...and the devices are all great...but we need to do it kindly”* (P22).

While the financial and economic struggles of those who do not have the resources to participate in the digital society are largely unrecognised and invisible in western societies, panelists discussed how these issues appear to be often framed instead in simplified ways, for example in terms of ‘the luddite’. That is the way people

simply oppose new technology either because they value traditional ways of doing things (such as face-to-face banking), or because they do not manage to understand it.

Carelessness in digital innovation was then contrasted with the notion of 'doing things' or innovating kindly, with care—something our panelists expected to find in the proposals. Instead, panelists found that some proposed research projects, despite well-meaning, appeared to promise little or nothing in the way of changing people's realities, sometimes reinforcing stigma, or were bestowing pejorative perceptions of communities. For example, here P4 comments on a project that intended to support migrant women through an online forum connecting them across two countries: *"My concern is from a human perspective it does not discuss how this will improve people's mental wellbeing. They need to take into account people's health and mental health and wellbeing as this needs to be addressed also. The reason being the two migrant women groups have been literally torn apart from their communities."* (P4)

Considering and accounting for the needs of community groups appeared to need the 'human touch' and deeper connections and understanding of contexts and the particularities of communities' life experiences. Notions and practices of '*accounting for*' and '*taking into account*' were both defined as a matter of social impact and (un)intended consequences. For example, panelists suggested that the very act of labelling and 'defining' a specific community within a research project or intervention designed for them, may have negative consequences for the way 'definitions' may reinforce or invite stigma and could even deepen social divisions. Panelists gave several examples of this 'labelling' by researchers from their own experiences. For example, they discussed pupils in school who qualify for free school meals—which is means tested and as such a sign of relative deprivation—as something that despite being a positive social impact for that community, causes harm for some pupils when these differences are pronounced through the way the school process this (for example having a separate queue or asking them to use a card while others use cash). From one hand, then, there were concerns that any proposal focusing on marginalised or underrepresented group may have the unintended consequence of highlighting difference: *"Yes, because the well-intentioned initiatives often cause more stigma. It's like when groups have been set up, you know, for particular minorities, what it does is it creates disharmony"* (P25).

On the other hand, there was a concern that the people in the identified communities would not be included in the 'appropriate' way. Here P5 comments on a proposal that sets out to work with marginalised citizens to improve data literacy skills: *"The proposal links being on the margins to intersectionality, but it is not clear if the project has considered how intersectionality within those communities will be made visible and included in the project and what this might mean for data concerns."* Here in their review P5's concern is that researchers might bestow unhelpful and potentially harmful labels on a community.

At times, particularly in the final reviews, participants called out the researchers for their use of unnecessarily complex and inaccessible language—stating it was against the instruction of the call, which requested lay language in order to reach out to the very people proposals would theoretically aim to support or work with, rather than alienating them. For example, P19, who had 'real world' experience of working in education settings, criticised a proposal about the creation of digital literacy resources for educators of school children for their use of language. In their review, they warned the authors that complex and unintelligible ways to convey information won't have impact in the 'real world': *"The community which this research is intended to benefit needs findings and recommendations that are easy to digest, because they are time poor. [...] I mean, I didn't feel like I was completely ignorant of the subject matter at hand and it is stuff that I've actually been dealing with professionally"*

*on a day to day basis in the last few months. So, it's actually quite front and central in my mind, and I still didn't understand all of it."*

Similar concerns were echoed by P3: *"Just because the research lays out evidence in a report, does not mean they will fully understand and/or follow its advice."*

Issues of language and ways in which academics are seen to convey insights and knowledge appeared to raise serious questions about the potential for productive and caring partnerships between academia and non-academic communities. Not only was 'jargon' deemed unnecessary by panelists, but it was also considered as evidence of researchers disregarding the criteria the panel had spent time developing and somewhat ignoring the need for dialogue between communities and researchers, in particular for the area of social justice and digital technologies research: *"Yeah, they might have terminology and jargon, but the questions being asked for our section [social impact criteria] are very clear [...] you don't need jargon to answer that question."* (P17).

Academic language itself appeared to create unnecessary barriers, exclusions and division, reinforcing panelists' view that researchers are largely detached from the 'real world' and the ways social justice is experienced on the ground. Such tensions about language and the role of academia emerged in panelists' reflections about our own communication with them. Here P1 comments on the first email containing information about the Open Commissioning and Community Panel process: *"I didn't understand the terminology and when I read through, I got really lost. Now, just like this is not for me. This is the type of people... and I literally pushed it to the side. It wasn't until I watched the video. Yeah, I actually thought I get what it is now. And I really liked that video, it made a lot of sense."* (P1).

We also run the risk of being cast as "the type of people" preoccupied with the institutional value systems that our project tried to shift and subvert. In the quote, P1 refers to a video, created by the project lead to introduce the themes of the project giving real world examples. Discussions with our panelists then, reminded us that not only the language and representation of ideas and research is political, but that they 'do politics' by other means in the way they determine any potential social impact of our work from the outset.

Carelessness in digital innovation was then articulated in different ways by our panelists; in the way exclusion in the digital economy due to an unequal distribution of resources further exacerbate existing inequalities; in the way communities are represented, defined and framed in research proposals creating or reinforcing stigma and social division or ignoring existing assets and expertise in communities. The use of jargon and complex academic language overall appeared to alienate our panelists and the people whom the research was meant to support.

#### **5.4 (Re)conceiving Impact and Entangling Who and How of Justice**

In the final section, we report on how panel members identified inherent contradictions in proposals that set out to respond to complex social issues through digital innovations. We explore how through the Panel process, different notions and valuations of projects' potential impact came to the fore; and the ways panel members articulated social impact in terms of scale, timings, and transferability.

In the second phase of the process, panelists were encouraged to adopt and apply the criteria for social impact according to their own interpretation of what the criteria meant to them. This meant that they didn't treat them as 'doctrine', but instead used them flexibly as guidance to assess proposals and consider their value. Panelists saw value and potential in proposals beyond the three judging criteria; for example, through identifying aspects and approaches they recognised as valuable from their own experiences and practices, such as co-

design; and from acknowledging proposals that tackled an important area or timely topic. In this sense, sometimes panelists felt that it was important to be flexible and tailor the use of criteria, giving more or less weight to criteria according to the specificity of proposals. For example, P3 talking about a proposal to use chatbots to offer free guidance and advice for victims/ survivors of domestic abuse, recognised the potential value of the project and its long-term impact, despite not fulfilling one of the three criteria (e.g. creating the conditions for bringing communities together): *“Although 2 [out of 5] seems like a low score, I do not think it is a problem [...] This study could make a big difference to the quality of support currently offered to victims/survivors of domestic abuse.”*

Just as panelists looked beyond the criteria to find value in the proposals, they were able to identify contradictions in research proposals that failed to engage with what they considered as the core issue or failed to engage with the complexity of the social justice issue of concern—in particular in terms of the way those who experience digital exclusion are also very likely to be at the centre of social justice concerns. In this sense, issues of digital access and the way ‘digital inclusion’ is entangled with existing social (in)justice and inequality emerged repeatedly throughout our process. Digital responses to social justice issues were sometimes framed as a paradox—whereby attempting to support people currently digitally excluded through digital technologies was considered unhelpful, running the risk of further marginalising and isolating them, while leaving the core issue unchanged. Here, P13 considers the social groups that would be most likely to be experiencing digital exclusion and in turn most likely to also be subjected to social injustice (in this case domestic violence): *“Elderly adults, asylum seekers, refugees, people with disabilities and those on low incomes are most likely to experience barriers to digital inclusion. All of these groups may also be at an increased risk of experiencing domestic violence.”* (P13)

In this regard, often panelists thought that research proposals missed the point or lacked a clear articulation of the ‘what’ of social justice and who should be concerned with it. Panelists recognised that many of the issues proposals were setting out to tackle could be understood as complex, “wicked problems” and as such difficult to define and pinpoint. In their view, the complexities of social justice issues demanded complex responses. In this way, panelists began to unpack but also articulate how the ways the ‘what’, the ‘who’ and ‘how’ of justice [40] are entangled and need to work together. Panelists were particularly attentive to omissions and silences in proposals; who was missing and who hadn’t been considered. This attentiveness, in turn, became an analytical strategy that enabled panelists to question the extent to which projects attended to social complexity and issues of digital exclusion. For example, P12 questioned a project that aimed to develop an algorithm to automatically identify cyber violence against women and girls: *“How will victims of cyber violence be able to access this? In terms of someone from a vulnerable background with little to no technological skills or access to technology in order to report their experience. Especially in cases of the Black and Ethnic minoritised groups. Will it be intersectional?”*

Here P12 stresses the way social identities and social justice issues are the results of many complex interacting factors (e.g class, gender, race, abilities etc.) and any algorithmic systems that attempt to respond to this (in this case cyber violence) should be designed according to reflect such complexity and be cognizant of it. In this sense, entangling the ‘who’ and ‘how’ of justice. In this way, panelists developed sophisticated ways to assess and evaluate social impact of proposals—engaging with the specificity of contexts, social groups and social justice issues. When discussing the criteria, the focus frequently turned to the question of ‘justice for whom?’ and on the unintended consequences of the projects proposed. For example, when discussing the

terminology for the criteria, one panelist expressed a concern about causing negative unintended consequences for the wider community as a potential drawback to focusing narrowly on a specific group: *“This is our target community, this is how it’s going to be good for them, but then have they also considered the impact of doing that on the rest of the community as well?”* P27 here, referred to the way considering needs of community narrowly could be risky and perhaps dangerous. Thus, a need to articulate wider impact (positive or negative) even when engaging a small, localised community came to be important. Panelists, then, grappled with questions of scale, timings and transferability in considering the social impact and value of research proposals. For example, concerns about who should be the focus of interventions and how this related to social impact was discussed in terms of the number of people the projects would engage with and its outcomes benefit. The scope and scale of proposals was a point of negotiation and contention in both the first and second phase. Here several discussions unfolded grappling with questions on whether smaller projects with a clearly defined group could be argued to have equal or greater value and positive social impact than project engaging with much larger and wider groups. Broadly, however, in discussing the criteria, more emphasis was placed on protecting small-scale projects: *“What I don’t want to do is knock something that’s a really, really, really good idea for a very small community.”* (P24)

The panel, then, was mindful and preoccupied with ensuring that positive social impact could be recognised in terms of the quality of the work proposed, rather than simply the quantity of outputs or number of people engaged. In this sense, panel members found value in small scale projects, that would articulate and aspire to improving people’s lives. They considered that this could have a ripple effect on the wider communities, for example through developing relationships, community cohesion and solidarity through projects, which was considered to be a more sustainable approach, thus having more lasting impact. As such, even more scale projects developing methods or technologies in collaboration with a smaller number of individuals or smaller community were recognised as valuable and useful in other contexts: *“So, if it’s effectively one community that’s very specific is it worth investing in because it can then be rolled out in other communities that are similar, or have a further reach than just in the initial community?”* (P25). Our panelists then saw value in transferability and the potential for scaling out (rather than scaling up) projects. The timings and relevance of the research and their outputs was also the focus of discussions in determining positive social impact of research proposals. In particular, the ways some research projects timings seemed to be ‘out of synch’ with the issues and challenges people were experiencing on the ground, in the ‘real world’. For example, in their review, P19 raised concerns about the timeliness of a study that proposed to develop a platform to support teachers delivering pedagogical programmes in schools in times of social distancing due to Covid-19: *“My most significant concern is that the research outputs proposed will be delivered too late to influence critical conversations that are happening right now. [...] Research that provides outputs after the coming academic year may provide answers too late, or address questions that are no longer relevant to the situation at hand.”*

In articulating such concerns, panel members highlighted a mismatch between academic workflows and procedures (and their timescales) with the timings that social justice issues in communities demand instead making research efforts feel sometimes irrelevant or unresponsive to the realities of communities and their needs. The timeliness and timings of research processes and output was then considered important in terms of social impact and related to researchers and research projects ability to be responsive and flexible.

Throughout both phases of our process, panelists grappled with way in which positive social impact could be defined and assessed. Beyond meeting the needs of communities effectively, they attended to contradictions,

silences and omissions in proposals; those who would be left behind or further marginalised by a particular digital innovation, and the identification of social justice issues and the questioning of whom would benefit as well as how a digital innovation was deemed to also include consideration of wider social inequalities and impact of research beyond targeted groups. Despite the criteria, social impact was conceived and re-conceived flexibly according to each proposal, and contingent on an awareness and acknowledgement of the complexities and particularities of social contexts.

## **6 DISCUSSION**

HCI's recent focus on the role of computing in and for social justice and social transformations [21,28,37] speak of growing ambitions to contribute to world-making processes that are fairer and socially just; such ambitions include affording people new understanding and practical tools to participate meaningfully in the production of innovative technologies that have an impact on their lives thus enabling people to co-create and shape our presents and futures with dignity, consciousness and strength [55]. In turn, this drive calls for the need to be more open and reflexive about our own research process — including the institutional and economic structures and mechanisms that shape them, in order to change them [e.g. 28]. The creation of our Community Panel was an attempt to open up the commissioning of digital innovation research to civic participation; as a way of making these processes more democratic and accountable; as a way to building coalitions, communities of interests and partnerships around a common objective: the funding of projects that could benefit people, communities and places, in line with principles of social justice as outlined by Dombrowski et al. and Vlachokyriakos et al. [28,88]. In this section, we reflect on the Community Panel process, the learning that derived from it and its value to HCI research concerned with its role in social justice, and with equity and accountability in design endeavours.

### **6.1 A call for honesty and care**

While designing and delivering our Community Panel process, we discovered that our panelists found value in honest and humble (unassuming) accounts that would openly consider the ambivalent nature that any imagined future digital innovations or novel socio-technical interventions necessarily entail. In some respect, panelists reminded us that any envisioning of positive social impact cannot be assessed or conceived in isolation or separated from potential unintended consequences and undesired impacts; that any envisioning and innovation always entails an alternative view from somewhere, and should be understood as the 'collective stewardship to take care of our futures' [45]. The same can be said about social (in)justices and the way research and innovative technologies can either support, replicate or reinforce social justice [81], including through the ways we collaborate and write up research [51] and research proposals.

Such a recognition calls for reflexive accounts that are mindful of the limits of our own knowledges as we endeavor to co-design responses to the complex issues that are experienced by communities, which we may not have direct experiences of. It also acknowledges the relational and conflictual dimension that characterises collaborative or participatory work in digital innovations [59]. This aligns with increasing calls within and beyond HCI to include more reflexive, caring accounts not only of what may not have 'worked out' in research endeavors alongside successes [28,43] but caring accounts of the issues as they are experienced and in context that reflect on the mismatches between our aspirations as researchers and the complex and 'uncertain' [46] realities we work within. Our panelists showed us that reflexive and caring accounts do produce care [57] and that this

should extend not only to the processes we engage in when disseminating our work, but also when writing research proposals and imagining what could happen, before endeavoring to ‘make it happen’.

Throughout both phases of our process, panelists called for a recognition of the complexities of developing responses to social issues, questioning problematic labelling of communities in research projects and researchers’ ability to be responsive to diverse contexts. They questioned the paradoxical nature of ‘digital solutionism’ that looks to address complex social issues, resulting from many intersecting factors (race, gender, ability, class, etc.), including digital access and past trauma with “the traditional polished appeal of innovative technology” [49:19]. They problematised researchers’ motivations for proposing to use certain technologies and tools such as chatbots and digital mapping, rather than recognising and working with the expertise that exists in communities. Thus, our panelists valued proposals in which they could recognise the voices (and influence) of those affected by the issues the researchers set out to tackle.

Our panelists were confused and frustrated by the lack of care shown in rendering ideas in language they could understand and relate to. In a sense, this lack of care resulted in panel members feeling marginalised and disenfranchised from the research and research cultures. Calls in HCI for feminist intersectional approaches to design [19,21] demand more reflection on research practices and designer/researcher-civic relations, particularly around social justice. On a practical level, HCI researchers have begun to explore ways of supporting more caring and productive partnerships [23], including the political work of analysing research findings with research participants and partners [38,39,44]. Such moves takes small steps towards a more equitable redistribution of research benefits [28], but require researchers to develop (perhaps new) skills and ‘ways of doing’ in challenging the academic status quo through designing research projects and communicating research ideas or research insights in ways that break from tradition.

Our panel members highlighted a lack of care in the way that communities and their needs had been identified and ‘defined’ *for them*, rather than *with them* in research proposals. Beyond the identification of needs that someone or some group take responsibility to ensure that these needs are met [85], aligning with critical work in HCI that has problematised the way ‘users’ are characterised in design [82], our panel’s stance on equitable collaborative partnerships demanded more than approaches or paternalistic modes of ‘doing digital innovation to’ and even ‘doing innovation for’ communities. Their discourse called for a commitment to coproducing research that would position communities as capable participants in digital innovation—including the distribution of power and responsibilities that come with such participation [85]. Yet, in moments during our process, some of our panelists felt uneasy about the responsibility and power that came with their role as reviewers. Such feelings serve as a reminder of the conflictual dimension that ‘caring collaborations’ entail and of the challenges necessitated through the co-production of knowledge. In the next section we reflect further on this.

## **6.2 The value and challenges of setting up a Community Panel**

Our panelists found value in the process we set up; learning about research processes and methods, including some of its financial and economic aspects; learning about digital innovation and the way it is bound up with issues of social (in)justice; having the opportunity to discuss these issues with other communities of interest; and contribute to a decision-making process and see that their voices were valued. The process entailed reciprocal value for us; in the way panelists helped us recognise aspects in proposals that we may not have considered as salient about research processes or the ‘work that is done’ also through research discourse; and

in contextualising research ideas within their own experiences and within their (personal and professional) worlds.

Rather than simply inviting our panelists to participate in the procedures of reviewing research proposals, our process asked them to also develop some of the rules and norms driving the process—for example, through the creation of criteria and the articulation of what digital innovation that supports social justice ought to be. Our approach did not presume to understand panelists' realities but supported them to use their knowledges to develop the norms and values for criteria and to review proposals, grounding their judgements in their lived experiences. Our approach and design of the community panel can be therefore regarded as an instance of, or an attempt to further expand on, community-driven methods in HCI to create mutual outcomes for research partners and participants [21,35].

Our panel was enthused and keen to play a role in deciding projects that would benefit the communities they were there to represent but also had ideas on how our process could improve. The design of this Community Panel and its model was quite limiting and perhaps 'conservative', in that we were constrained by the times, spaces and managerial economies that research commissioning processes entail. Nevertheless, this experience of designing and delivering the process sparked our panelists imaginations (and our own); for ways in which they could go further to involve wider publics and communities they felt they could not legitimately represent, elicit their views and incorporate them in reviews. Their incentive for doing this, though, was not about getting the opinion of the 'right expert' rather, it was motivated by getting people who have direct experience of the issues and could offer a different perspective that would better reflect the complexity of social realities. This presents an opportunity to expand our process to a distributed approach to engage wider communities of interest with research proposals before they get funded.

With this study, we have begun exploring what 'opening up' civic participation in decision-making processes in the commissioning of HCI research could look like. We have attempted to open up the research commissioning process in ways that allowed community members to define what the outputs of research should be, through the creation of a Community Panel to include underrepresented and marginalised groups, who themselves echoed calls for care and honesty and promoted and shaped research agendas that do not further marginalise or (re)produce harm. In this exploration, our panelists reminded us of the challenges that our academic cultures currently pose for the enablement of such coproduction endeavors, which demand ceding control and 'prestige' (or conversely, rebelling against it). Such calls are in line with calls in HCI for the 'decolonisation' or democratisation of design and research that recognise and acknowledge the unintended harm design processes and the 'design workshop' can cause when they do not align with the lived experience of underserved communities [49]. As grant holders, we must acknowledge that although we had constraints, we also had power, which we used to experiment with the commissioning process to challenge hierarchies within academia.

Our study and related insights add to the growing discourse about ethics in digital innovation [10,15,19,46,58] and aligns with calls for design as a catalyst for social change [49]. We have highlighted that when voices from across society are brought together, old and new ideas, hopes and reflections about the present and the future emerge, and people can apply those to the practice of envisioning (un)intended consequences of technologies but also how things 'ought to be' and the kind of worlds that digital innovation and HCI research should play a role in helping co-create. The value of the our Community Panel process, then was as much about an attempt to open up and 'democratise', as much as a process about collective sense-making—sharing and changing

people's perspectives, defining values and mobilising [63]. Engaging our panel with the way HCI and digital innovation may support social justice, enabled us to develop consciousness and begin to see more pathways to build accountability in research endeavors; it appeared to have enabled them to further develop tools to hold to account researchers and those developing technologies for social justice, through the questioning and critiquing of research proposals in relation to their lived experiences in ways that can inform transformative action [41].

## 7 CONCLUSION

Civic participation has historically been regarded as one of the critical ways to tackle the power asymmetries between 'users' and systems designers and developers. More recently this has also been framed as a way to mitigate the potential negative impact of the systems HCI develops and deploys. In politically oriented research, participation is both an ethical obligation and a way to foster democratic politics in digital innovation. In this paper, we have presented the design of a Community Panel, where ordinary citizens were invited to determine and judge the social impact of research proposals. Through this process we have added insights to the growing understanding of the role of civics in research, offered ways of supporting such processes through the inclusion of a range of voices from across society, and asked how such approaches can be more daring and challenge the status quo of academic cultures and democratise research on digital innovation.

## ACKNOWLEDGMENTS

We thank all the people that contributed their time, experiences and knowledge to the Community Panel, for the care they showed us in the process and afterwards and their continued support. We thank Not-Equal applicants for their ideas and enthusiasm; the Not-Equal investigators' team Alan Dix, Lizzie Coles-Kemp, Ann Light and project team, Rachel Sparks, Christina Hawkes-Blackburn, Kate Kelly, Molly Tuckey for looking after the logistics of the process with care and dedication; and the workshops facilitators for the second phase of the process, Jen Manuel, Sean Peacock, Adam Parnaby, and Peter Glick. This research was funded by the Digital Economy Research Centre [EP/M02300/1] and the NetworkPlus on Social Justice through the Digital Economy, Not-Equal [EP/R044929/1]. Data supporting this publication is openly available under an 'Open Data Commons Open Database License'. Additional metadata are available at: [10.25405/data.ncl.13562756](https://doi.org/10.25405/data.ncl.13562756). Please contact Newcastle Research Data Service at [rdm@ncl.ac.uk](mailto:rdm@ncl.ac.uk) for access instructions.

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