Vocalising Violence: Using Violent Mens' Voices for Service Delivery and Feedback

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ABSTRACT

Public services are being increasingly scrutinised for their ability to be responsive and adaptive to their service users' needs. For service delivery in domestic violence, many aspire to include feedback from service users on their practice, to drive change in their organisation and performance. Current approaches for capturing and using feedback (i.e. surveys) often fail to record rich, in-depth perspectives that audio-video media affords. In this paper, we present the novel application of a voice-based technology to capture and use feedback to reflect on the delivery of a domestic violence intervention. Across four months, we undertook ethnographic fieldwork through observations of four deployments and four reflective discussions with service-staff in their delivery of a novel domestic violence prevention intervention for violent men. Our findings highlight the tensions with how voice can act as a resource to reflect on and refine existing service practices, and offers insights into how technology can play a more practical role in wider service design.

CCS CONCEPTS

• **Human-centered computing → Collaborative and social computing systems and tools**.

KEYWORDS

Domestic violence; Service Design; Digital Civics; Service Feedback.

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1 INTRODUCTION

A number of technical systems have aimed to foster more inclusive and deliberative forms of participation by supporting "citizen voice" [26, 43]. A key issue with this work, however, is that the current processes and how organisations respond to citizen needs (i.e. *organisational responsiveness*) to engage community stakeholders are ineffective unless driven by institutional or political change [22]. Responsiveness captures the extent that a public service demonstrates receptivity to the views, complaints and suggestions of service users, by implementing changes to its own structure, and developing new service delivery patterns with the aim of delivering a better service. Not all social groups are able to voice their concerns effectively, particularly through traditional feedback methods, and so institutional responsiveness to issues can be highly selective. The inclusion of service users in public services to address risk, trauma and harm is especially problematic as such services are often scrutinized to ensure appropriate and tailored responsiveness to service user needs [1].

This paper presents a case study of deploying a digital technology in capturing and using service users' voices for service feedback. We did this in partnership with a regional authority and community organisation for a domestic violence intervention aimed at challenging and educating a high-throughput of domestically violent men about their abusive behaviours. This case study aims to explore the utility of voice for service feedback and the opportunities and challenges experienced recording and using voice within the feedback process. Our findings outline the ethical, technological and social implications and challenges for practitioners who want to use service user voice as a resource to aid their work in gathering and purposing feedback. In doing so, we contribute to a growing body of work that demonstrates the untapped utility of voice for reflecting on service delivery by service providers [8, 11, 24].

2 RELATED WORK

Human-Computer Interaction (HCI) literature has explored ways to work with and against structural inequalities through research [7, 10, 43]. HCI research on domestic violence is no exception, and includes studies that identify actions that violent men use to further their abuse [19, 30], to studies that show how technology might play a role in reforming an individual's identity after the abuse has concluded [6]. Although governmental organisations (such as the criminal justice system) may intervene on some cases of domestic violence within the United Kingdom (UK), it is frequently local community organisations that manage the daily handling of individuals perpetrating and experiencing domestic violence in their locale. To reflect the complexity inherent within any instance of abuse, domestic violence support services can take on a variety of forms, for example, refuges, specialized health clinics, trauma-informed therapy and domestic violence prevention programs. Designing appropriate, technical responses within this ecology is particularly difficult, further compounded by the reduced technical-literacy of

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front-line staff and victim-survivors [5, 19], the competitive economic pressures faced by these organisations [3], and the drive to continuously demonstrate measurable outcomes to secure further funding [25, 31, 35]. Additionally, measuring what constitutes 'success' within domestic violence services through these outcomes can be challenging, with a reduction in the rate of reported incidents not necessarily equating to a reduction of incidents. Consequently, many organisations have aspired to include feedback from service users to drive service change and delivery, but current approaches to capturing and utilising feedback require technical expertise, or resources that these organisations often lack.

2.1 Digital Civics and the "Hard to Reach"

Research that responds to structural or 'wicked' problems often involves third-sector organisations such as charities, non-governmental organisations (NGOs) and voluntary organisations [38]. This may be performed by directly studying these organisations, or by entering into collaborations with them, with participants, or within specific settings. Work in this space explores how we should appropriately design for activism for societal inequalities [37], how we might support existing working practices [17], or how we can assist charities in their legal requirement to be more transparent and accountable for spending activities [29]. Despite the prominent role that charities and the third-sector play within the delivery of domestic violence services, it has been noticeable that relatively little work has contributed to the that way we can improve the experience of these services for users [6], particularly those aimed at perpetrating violence. With the third-sector predicted to play an ever larger role in the delivery of public services [31], it is critical that we look at how we can seek to support this delicate third-sector to citizen intersection in interventions within domestic violence, particularly those aimed at the agents of such abuse; violent men.

New socio-technical disciplines (e.g. Digital Civics [32]) have emerged to explore how digital technologies and services can include the so-called "hard to reach" individuals that may be difficult to engage using traditional public participation methods. In the context of public services, work in this space is explicit in referring to 'undeserved' namely minority groups and those slipping through the net of provision [9]. However, there is a limited coverage in how to include not only service *excluded* groups, but service *resistant* groups that actively do not wish to be included in the design of public services, such as individuals that demonstrate 'deviant' or stigmatising behaviours through use of violence. While this may initially seem contradictory for the violent men whom demonstrate abusive or harmful behaviours to 'have a say' in how services are designed for them, recent work has highlighted the potential for viewing such service users as a resource for a greater, in-depth knowledge of how to challenge abuse, and support healthy behaviours in relationships [4, 18].

2.2 Augmenting Service Feedback

Incorporating feedback and experiences from service users to evaluate, refine, and tailor the delivery of services is a key process of service evaluation [40] and often used to evidence outcomes. HCI literature has explored the use of digital technologies for capturing public opinion and feedback across a range of contexts (e.g. civic discourse, public service, care providers) [11, 23, 28, 39, 41, 42], for example, using a lightweight, bespoke technology to capture situated media feedback to questions set by an organization [11], novel ways to capture UK census data [23], to the design of public service and community voting technologies to collect and visualize public opinion [28, 42]. As outlined above, local domestic violence services are under intense pressure to design meaningful, effective responses for their service users. Many aspire to include feedback from service users to drive service change and delivery, but current approaches to capturing and utilising feedback require technical expertise, or resources that these organisations lack. In particular, organisations find it difficult to meaningfully interpret and use such feedback without the assistance of researchers. This may be attributed to the skills (qualitative analysis, reporting findings, etc.) and resources (transcription cost, staff time, etc.) required to engage in these qualitative activities, particularly when feedback is in a media format where existing commercial software has high barriers to entry [33].

Contemporary feedback technology often utilises lightweight interactions, where responses can lack the richness or depth present within discussions of the complexities of violence, or capture feedback in video format, but is unsuitable as many service users disclose sensitive accounts. Despite its propensity to be used in research [2], audio has been relatively overlooked as an alternative to traditional feedback methods. Capturing service user voice has been demonstrated to be beneficial in other ways within the third-sector through empowering service users to safely express their concerns through safe channels of dialogue [12]. It is vital that members of 'vulnerable' or marginalized communities have their voices heard [41] as they are often the hardest to engage in these processes, but are the ones who may benefit the most from the services offered.

3 CASE STUDY: DOMESTIC VIOLENCE

Domestic violence has long lasting, negative impacts on victim-survivors, children, families, local community and society at large [20]. In the United Kingdom, the National Crime Survey for England and Wales reports that 2.0 million adults (1.3 million women, 695,000 men) experienced domestic abuse in 2018 [14]. Despite this scale and intensity, there are fewer services for victims than needed and even fewer interventions are offered to violent men to challenge and support desistance of abusive behaviours. Available services frequently involve a course (approximately 20 weeks of 2 hours) that aims to help men stop being violent and abusive, learn how to respect their partner, and develop non-violent communication strategies in their role as a partner, and frequently as a father. Evaluations of these behavior change interventions – despite their low enrollment – illustrate that men who complete these courses have a reduced propensity to use physical violence in their intimate relationships [27].

Consequently, *Project Dehort* was designed by a local regional authority in response to the low numbers of violent men receiving an intervention for reported patterns of abusive behaviour in their region. Project Dehort brought together a range of expertise from different stakeholders, coordinated between two regional locations, public services (police, social services), a specialized women's service for victim-survivors, a regional university responsible for

evaluation and the third-sector organisation commissioned for delivery of the course sessions. The intervention was targeted at violent men whom were deemed standard to medium risk by public services to support reflecting on negative behaviors as a route to behavior change through an awareness-raising, educational course. A complete course is ran over two days (each lasting six hours) and consists of a combination of educational group activities on the potential causes, scale and impact of domestic violence on victim-survivors, their families, and communities.

Participatory activities that positioned participants of the course as agents in their own learning were deliberately sought out to encourage attendees to see their behaviour, and therefore their ability to reform it, as an active, measured choice. Course activities were designed as a seminar format, where new information presented to the group could be discussed — such as learning the psychological impact of experiencing domestic violence on children. As such, capturing audio on how the group discussed these topics, and specifically what was discussed was a crucial element to honing future delivery to meet the needs of future service users.

Each course was hosted between two local community centres in the North East of England to increase engagement and accessibility of its delivery. Within these spaces, attendees, facilitators and the lead researcher could sit together, using a projector as prompts for discussion and displaying educational material such as worksheets and videos. This format permitted the encouragement of shared dialogue, in contrast to a traditional classroom layout, where attendees could express their thoughts in a non-judgemental and open environment, while being challenged and reaffirmed on their behaviour by facilitators. Having the ability to share, and be praised or challenged on opinions (even if objectionable) has been identified as the first stepping stone to the positive enforcement of healthier behaviours and relationships [36].

3.1 Configuring Course Engagement

Each two-day course was designed for up to 15 men who had not received a formal intervention for a reported pattern of incidents of domestic violence. Each course "session" was hosted over a weekend and redesigned for a new set of participants based on feedback from the previous session. A separate organisation, "ChildSafe" was responsible for the delivery of these courses. ChildSafe is a national children's and vulnerable people charity with decades of experience in delivering domestic violence services. The delivery team wished to understand "what worked" and "what didn't work" with course material but had experienced a number of problems in obtaining accurate and comprehensive feedback from service users.

The facilitators reported that as most sessions that they had hosted in other services involved group work, the action of asking service users to contribute individual feedback disrupted session flow and was instead completed post-session via an online survey. This method required more time from participants and was restricted to simply-worded or quantitative questions (i.e. Likert scale) to respect the lower-literacy levels of the group. As such, nuanced opinions of the impacts of these services remained undocumented despite service users being confidently able to verbally express their opinions. "ChildSafe" wanted to audio record these disclosures in a format where service users could feel confident talking within existing sessions while reflecting on the training that was delivered.

4 METHOD

Reason and Bradbury's second person Action Research approach was used to reflect the risk-averse nature of sensitive contexts [34], which provided a structure for the organisation to: (1) reflect on activities that worked or did not, then (2) act on these insights by enhancing course material. The lead researcher made ethnographic field notes to document facilitator and attendee interactions with the feedback technology used, and how the service utilised it to refine sessions. Inductive Content Analysis [15] of all field notes, transcribed sessions, and audio feedback was also performed in our research.

4.1 Collating and Purposing Feedback

Capturing, engaging with, and using feedback to evidence this process (to partners, etc.) and tailor subsequent training sessions were key requirements for ChildSafe. The facilitators suggested the use of audio to gather this feedback to combat their previous challenges with using surveys, interest in recording situated conversations at multiple points during the course, and hesitation to video record participants due to concerns of confidentiality and anonymisation.

Rather than build a bespoke technology to explore this, and subject the project to potential delays in software development, we saw an opportunity to deploy Gabber [33], a digital platform designed within the lead researchers lab that aims to make the capturing and analysis of audio recordings lightweight and accessible activity for everyday people and organisations. Gabber uses 'topics' to structure capturing audio conversations through a mobile application and has an associated website where participants can view their recording and create textual comments directly on the audio. Consent of data recorded is integral to Gabber: the mobile application requires that participants of a conversation each input their full name and email address. This metadata is used to contact participants and provide access to the recording where they can individually control who else has access to it through the Gabber website.

4.1.1 Capturing Feedback in Sessions. Capturing feedback occurred twice per day: before lunch (AM) and after lunch (PM), for a total of four Gabber activities per weekend course. Participants were split into groups of three for 15 minutes to encourage in-depth discussion, such as shown in Figure 1. Each feedback activity used Gabber to record feedback on the same three topics across groups to ensure consistency and comparability of feedback across the weekend sessions, which included: *"Talk to us about what you have learned"*, *"Talk to us about what you have learned is going to motivate you"*, and *"Talk to us about how we can improve this session"*. Facilitators advised that in the smaller groups, participants took turns to be an interviewer who would ask the topic questions, and an interviewee to answer. Given the three topics and three participants per group, each man assumed the role of interviewer for at least one question.

Due to safeguarding recommendations and policies in line with other third-sector organisations [21], ChildSafe, were unable to disclose the personal details of participants to the research team. Consequently, it was not possible to use the existing consent process

in Gabber. Instead, we used pseudonymous initials and our own email address to preconfigure Gabber before each session to provide the facilitators and the lead researcher with access to the recording.

Figure 1: Participants using Gabber topics for discussion

4.1.2 Listening and Using Feedback. Following each session, facilitators and the lead researcher met to discuss how the training was received, and to identify ways to improve future sessions in response to recorded feedback and participants actions (i.e. physical posture, attitude, etc.). Each sensemaking session lasted 1 hour and was configured around the playback of captured audio feedback. Although the facilitators were encouraged to type responses to content through Gabber's webpage component (Figure 2), due to time restrictions, the group suggested that the lead researcher use the Gabber web interface, and that they dictate what to write and when in the audio to create these comments. The lead researcher wrote down facilitator's responses verbatim to prevent confirmation bias or cherry-picking what reflections she deemed most interesting, important or essential for the process.

5 FINDINGS

This section presents reflections from our observations and use of Gabber for capturing and interpreting feedback within our engagement with our third-sector collaborator. Our findings document observations across four courses (March — June 2018) of the lead researcher's longer ethnographic engagement with ChildSafe, outlining challenges when capturing feedback in sessions (with P1–P8) and reflective meetings with ChildSafe staff (CW1–CW4).

5.1 Capturing User Feedback in Sessions

Prior to using Gabber, the session facilitators were made aware of the social desirability effect [13], whereby participants may be more likely to share positive answers to questions that they perceive to be endorsed, and less likely to report answers that would not be. In our project, the lead researcher was concerned of a positive bias and over-representation of positive opinions towards the introduction of Gabber and its inclusion in the course activities. This was mitigated in sessions by outlining that the facilitators welcomed negative feedback as the lead researcher was not involved in its creation.

The lead researcher observed that Gabber helped to mitigate awkward silences that facilitators reported occurring during other group sessions. This could be because participants felt more comfortable to discuss answers to Gabber's topics within a smaller group, which could alleviate some of the pressure that may result from responding to the facilitators and the rest of the group. The process of pressing the record button and selecting to change the topic on the interface also had an effect, prompting a considered response from the men out of concern for leaving "dead space" on the recording. In particular, placing a service user as an "interviewer" role disrupted the standard power dynamics present within many educational domestic violence interventions, and some later described that being placed in this role empowered them with authority to probe others on sensitive topics of violence that they were personally familiar with. They highlighted that reflecting amongst groups of people with similar experiences to their own made them be more honest and forthcoming in comparison to discussing one-on-one with facilitators or other public service officials. This was also highlighted by facilitators after sessions who noted that much of the discussion that they overheard was more candid than when the service users spoke to them.

5.2 Reflective Meetings with ChildSafe

Across the space of four reflective sensemaking sessions with ChildSafe, 224 minutes of discussions between facilitators was recorded. 127 annotations were created by the lead researcher (directed by ChildSafe's staff) on 78 minutes and 41 seconds of service user feedback collected through Gabber, from a total of 100 minutes and 33 seconds. As such we annotated 78% of the complete coverage, excluding speech that was judged off-topic or inaudible.

The shortest annotation contained 4 words to reiterate a quote from a participant, and the longest annotation was 82 words that included facilitator reflections on how two participants were conversing with each other with specific reference to tone and language choice (Figure 2). Of these annotations, roughly two-thirds (78) were reflective in that the facilitators deliberated on what the participants were contributing to the discussion, and how to best summarise or respond to concerns or praises raised. The remaining annotations (49) represented direct quotes from participants that were powerful, pithy or required flagging, such as expressing encouragement for negative behaviours. Permission was granted by ChildSafe for the lead researcher to temporarily have access to recordings totalling 100 minutes and 33 seconds through Gabber (where participants' full names are not shown) for the duration of this paper's analysis period. This analysis was performed via Gabber's website where a temporary account was generated so the researcher could listen to the audio feedback, and read ChildSafe's subsequent annotations.

Two themes emerged through an inductive content analysis [15] of all feedback: *Vocalising Feedback* and *Hearing the Difference*, while a third theme was identified through the collaborative sensemaking activities with ChildSafe: *Voice as a Resource*.

5.2.1 Vocalising Feedback. Gabber was reported to provide an important channel for capturing short but nuanced forms of audio feedback within groups, particularly for those with lower literacy

levels who struggle with online surveys or paper questionnaires. Each participant stated that although it was difficult to attend something designed to educate and challenge them on their previously abusive behaviour, they appreciated the non-judgmental space of the course. Despite the circumstances that led to their attendance, they appreciated *"getting some say"* (P8) in this feedback process. The range of multimedia activities including worksheets, interactive quizzes, videos, role-play and focus group style questions were welcomed by participants as alternative ways of expressing learning and attitudes towards sensitive topics. In particular, participants who demonstrated dislike or distress at being unable to read or complete the course worksheets found greater comfort in audibly expressing their thoughts and opinions towards the content.

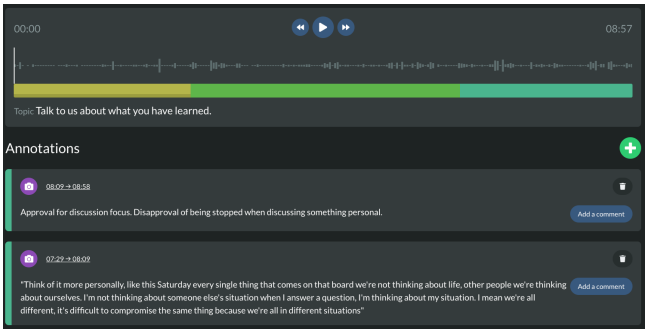

Figure 2: Viewing comments created by staff using Gabber.

5.2.2 Hearing the Difference. In most of the audio captured in the AM session, participants demonstrated considerably more reluctance to engage with course content, and many spent most of the time justifying or denying their abusive behaviours. By the PM session, participants spoke of learning that had taken place during the day and started to disclose intimate and sensitive reflections. Facilitators paid close attention to one participant (P3) who was heard stating *"I shouldn't really be here, it's not aimed at me"* in the AM session, to *"I'm going to stop being so selfish, which I have been"* in the PM session. While we cannot attribute this change in attitude to the use of Gabber, it was reassuring that the system was able to capture situated reflection of serious behaviours. The facilitators were surprised to hear a difference in the service users' attitudes in such a short-term intervention (in contrast to a longer 20 week course), and were enthused to take audible feedback as validation that they, as an organisation, were *"doing something right"* (CW2). Despite their training, facilitators explained that it was relatively hard to remember exact user responses and attitudes towards course material, particularly across the length of an intervention. With the introduction of Gabber however, the facilitators explained that the system managed to record what would normally be missed across the session, and could potentially demonstrate behaviour change to other service providers.

5.2.3 Voice as a Resource. During the four sensemaking activities with service providers, concerns for the use of audio recordings was a recurring issue, with facilitators stating its audible format brought both exciting potentials for innovative service design, but were troubled about ensuring additional service user protection from identification:

> *"when you can hear real people, it's powerful ... but people in our organisation could identify them [service users] if they have heard or spoken to the men ... they'd know their voice"* (CW2).

The team expressed that, if not managed carefully, using service user's voices as a resource could potentially put the team in a *"difficult situation"* (CW4) that required choosing between: representing the service user's unadulterated opinion and risk identification through violation of safeguarding requirements, or by using alternative representations (i.e. transcripts) that remain within safeguarding limits. They reflected that who this material would be listened to should be factored into this decision: it is one thing for another service user to benefit from listening to a conversation for an intervention on their premises, to sharing material with other agencies for awareness, educational, or evaluatory purposes.

Although the team gained written consent from participants for the use of their data in an evaluation, they identified further limitations with participants having to physically re-consent if the potential use of this data changed. While maintaining security, privacy and agency over an individual's data is core to the EU's General Data Protection Regulation (GDPR) [16], the facilitators identified that the individualised nature of gaining consent could potentially *"hinder community efforts to improve and tailor services"* (CW1). When asked to clarify, service providers justified that although organisations had to ensure excellent data sharing practices with respect to an individual's care, the same practices were (understandably) not expected from service users to share their data, particularly for "hard to reach" populations. The research team found this especially interesting, as data for 'vulnerable' groups is frequently only discussed with respect to keeping it secure, rather than viewing it as a potential resource for collective, community responses to domestic violence. The facilitators clarified that they were not advocating for relaxed regulations around personal data, only that taking an individualised focus on consent and ownership of such data could isolate it from attempts to combat future patterns of violence. As domestic violence is rarely as simple as abuse between two individuals, we found this to be an insightful perspective on understanding how to position service user voice as a resource within this space.

5.3 Discussion

Our case study highlights the potential for the use of service users' voice in the delivery and evaluation of domestic violence interventions. In particular, although identified as a valuable asset to organisations, we have demonstrated through our engagement with our local third-sector organisation that understanding it as such can also bring about challenges. In this section we reflect on two factors that may contribute to a more responsive dialogue between service provider and user, particularly with respect to sensitive spaces; *Responding to Responsiveness*, and *Shaping the 'Feed' in Feedback*.

5.3.1 Responding to Responsiveness. Being able to evidence clear and meaningful design outcomes ethically within domestic violence services has been identified as a source of contention for both service users and providers [25, 31, 35]. Our case study demonstrates

that recognising the inherent value of service user voice alone cannot mitigate problems of engagement in service design, without inadvertently generating new ones. Indeed, our work uncovered challenges regarding the concern for the essential safeguarding practices of service users [6, 19], and the frustration in the individualised nature of data protection regulations [16] that were considered to 'hinder' social progress to structural and societal problems. Personal data is essential for an individual's care within ChildSafe for updating different organisations of a person's contact information, progression and behaviour. Yet domestic violence interventions for violent men frequently consist of group work, which makes the organisational data protection requirements of mitigating against confidentiality breaches and provide individuals with greater control over their data, difficult. This is further compounded through the capture of audio data, where technically participants 'own' only segments of the media (where they speak), and the facilitators being unable to foresee groups whom may benefit from hearing this in educational or training contexts. We must ask ourselves the following questions when data is consented for one particular use case (in our case, intervention feedback): *What reconsent measures are required for sensitive, personal data to be used elsewhere, particularly in services where the future use of data may be unknown? Is reconsenting appropriate in cases where being contacted could re-traumatise the individual from reminiscing on past behaviour? How should we design digital tools that request permissions from vulnerable populations that demonstrate flexible consent models in sensitive contexts?* As services are rarely funded and designed in response to an individual and their needs, this poses a unique problem for the design of evidence-based public services that require iterative, flexible and responsive use of data [31, 35].

When we seek to support services being responsive to service users through using their voice as a resource, we do not just mean to be responsive to the unique needs or opinions expressed within these recordings. Rather, we believe that being responsive to voice requires us to engage with the dynamic, uncertain and temporal quality of it, where attitudes on sensitive topics can be 'captured' and heard to change within a short period of time — such as in our finding of *Hearing the Difference*. Audible data, as our lead facilitator (CW1) rightly pointed out is 'powerful', perhaps more so than traditional methods, as the practice of hearing nuances in tone or diction is contained in a stable state such as an audible file. For the service users themselves, the practice of generating this data, being able to position themselves as an 'interviewer', if only briefly, opens up spaces for more possibilities as to how service providers can incorporate feedback into service delivery.

5.3.2 Shaping the 'Feed' in Feedback. Existing service feedback technologies often aim to capture lightweight responses in a range of formats (digitalised Likert surveys, video responses to questions, etc.) in individual technologies (e.g. [11]), with limited work seeking to leverage audio as a potential resource for public services despite the simplicity of capture, and the richness that this material can afford. We observed that despite Gabber simplifying ChildSafe's existing feedback capture process, the organisational working practices – and arguably the tense political context surrounding violence – restricted how, like other engagements have highlighted [23, 42], participatory this feedback process could become. In sensitive contexts, despite service users often being the hardest to reach, our study confirmed they are still typically seen as excluded from the process until an introduction of a small, but meaningful technical system sought to challenge this. In this way, capturing and purposing voice can be seen, alongside other contexts [3], as providing a way to democratise perspectives in spaces where opinions and attitudes, are not only difficult but critical to be heard.

Through our work, we believed it was not enough for service users to be listened to, as many individuals are already expressing themselves (although not recorded) within such sessions. Rather, our work demonstrated that it was important for their voice to directly inform the following processes, such as being used for sensemaking activities by ChildSafe. Building on the identified problems with making sense of digitally captured feedback [11], having the ability to record, reflect and annotate audio through the same technical system attempted to discourage, rather than enforce a 'black-box' approach to understanding and responding to feedback. When using audio as a resource for the third-sector, as we have shown with Gabber, it can only hold weight if paired with an appropriate method of *how* to use this resource appropriately.

6 CONCLUSIONS

The presence of domestic violence within communities is a serious societal harm that damages individuals, families and localities, with little being contributed to how we can best improve appropriate public responses in this space. Through an on-going collaboration with a third-sector organisation and the application of voice-based technology, Gabber, for engagement and feedback, we have illustrated how service user voice can be used to capture feedback on a domestic violence intervention for violent men. Our case study demonstrated that the application of Gabber surfaced tensions and possibilities for how user data may be used or (if appropriate) reused, and the problems of reconsenting resistant groups within public service design. As such, we argue that service user voice, both inside sessions and outside sessions has real weight in shaping the type of activities used in interventions, and also as a resource for evidencing and driving change in public service design.

We foresee the potential of purposing Gabber in other community contexts beyond domestic violence where evidencing responses to local problems (essential for the drive for evidence-based policy) is paramount but fraught with complications including low literacy levels, disengagement and lack of technical knowledge. In particular, communities that have a vested interest in the outcome of such evidence collecting practices through engagement in data interpretation or reporting of findings could particularly find the flexibility of Gabber an important tool in their portfolio.

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REFERENCES

[1] Thomas D. Akoensi, Johann A. Koehler, Friedrich Lösel, and David K. Humphreys. 2013. Domestic Violence Perpetrator Programs in Europe, Part II: A Systematic Review of the State of Evidence. *International Journal of Offender Therapy and Comparative Criminology* 57, 10 (2013), 1206–1225. https://doi.org/10.1177/0306624X12468110

[2] K. Louise Barriball and Alison While. 1994. Collecting data using a semi-structured interview: a discussion paper. *Journal of Advanced Nursing* 19, 2 (1994), 328–335. https://doi.org/10.1111/j.1365-2648.1994.tb01088.x

[3] Rosanna Bellini, Patrick Olivier, and Rob Comber. 2018. "That Really Pushes My Buttons": Designing Bullying and Harassment Training for the Workplace. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. ACM, New York, NY, USA, Article 235, 14 pages. https://doi.org/10.1145/3173574.3173809

[4] Ingeborg Breines, Raewyn Connell, and Ingrid Eide. 2000. *Male Roles, Masculinities and Violence: A Culture of Peace Perspective.* Unesco.

[5] Chayn, Snook, and SafeLives. 2016. *Tech vs Abuse: Research Findings.* Technical Report. 3–56 pages. https://docs.wixstatic.com/ugd/f86f13_366b6514c8fc4e9488fc15edf2148d52.pdf

[6] Rachel Clarke, Peter Wright, Madeline Balaam, and John McCarthy. 2013. Digital Portraits: Photo-sharing After Domestic Violence. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13)*. ACM, New York, NY, USA, 2517–2526. https://doi.org/10.1145/2470654.2481348

[7] Hilary Davis, Luke Hespanhol, Jane Farmer, Joel Fredericks, Glenda A. Caldwell, and Marius Hoggenmueller. 2017. Designing Participation for the Digital Fringe. In *Proceedings of the 8th International Conference on Communities and Technologies (C&T '17)*. ACM, New York, NY, USA, 321–324. https://doi.org/10.1145/3083671.3083714

[8] Brian DeRenzi, Nicola Dell, Jeremy Wacksman, Scott Lee, and Neal Lesh. 2017. Supporting Community Health Workers in India Through Voice- and Web-Based Feedback. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. ACM, New York, NY, USA, 2770–2781. https://doi.org/10.1145/3025453.3025514

[9] P Doherty, A Scott, and K Kinder. 2004. *Delivering Services to Hard to Reach Families in On Track Areas: Definition, Consultation and Needs Assessment.* Home Office Development and Practice Report 15. Home Office. https://webarchive.nationalarchives.gov.uk/20100408135528tf_/http://www.crimereduction.homeoffice.gov.uk/antisocialbehaviour/antisocialbehaviour33.htm

[10] Lynn Dombrowski, Ellie Harmon, and Sarah Fox. 2016. Social Justice-Oriented Interaction Design: Outlining Key Design Strategies and Commitments. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems (DIS '16)*. ACM, New York, NY, USA, 656–671. https://doi.org/10.1145/2901790.2901861

[11] Andy Dow, John Vines, Rob Comber, and Rob Wilson. 2016. ThoughtCloud: Exploring the Role of Feedback Technologies in Care Organisations. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16)*. ACM, New York, NY, USA, 3625–3636. https://doi.org/10.1145/2858036.2858105

[12] Andy Dow, John Vines, Toby Lowe, Rob Comber, and Rob Wilson. 2017. What Happens to Digital Feedback?: Studying the Use of a Feedback Capture Platform by Care Organisations. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. ACM, New York, NY, USA, 5813–5825. https://doi.org/10.1145/3025453.3025943 event-place: Denver, Colorado, USA.

[13] Allen Louis Edwards. 1953. *The relationship between the judged desirability of a trait and the probability that the trait will be endorsed.* Journal of Applied Psychology. 90–93 pages.

[14] Meghan Elkin. [n. d.]. Crime in England and Wales: year ending March 2018. Retrieved Feb 28, 2019 from https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingmarch2018

[15] Satu Elo and Helvi Kyngas. 2008. The qualitative content analysis process. *Journal of Advanced Nursing* 62, 1 (April 2008), 107–115. https://doi.org/10.1111/j.1365-2648.2007.04569.x

[16] European Parliament. 2016. Regulation 2016/679 of the European Parliament and of the council. *Official Journal of the European Union* 59, 119 (2016), 149. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2016:119:FULL{&}from=EN

[17] Joel E. Fischer, Enrico Costanza, Sarvapali D. Ramchurn, James Colley, and Tom Rodden. 2014. Energy Advisors at Work: Charity Work Practices to Support People in Fuel Poverty. In *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '14)*. ACM, New York, NY, USA, 447–458. https://doi.org/10.1145/2632048.2636081

[18] Michael Flood. 2011. Involving Men in Efforts to End Violence Against Women. *Men and Masculinities* 14, 3 (Aug. 2011), 358–377. https://doi.org/10.1177/1097184X10363995

[19] Diana Freed, Jackeline Palmer, Diana Minchala, Karen Levy, Thomas Ristenpart, and Nicola Dell. 2018. "A Stalker's Paradise": How Intimate Partner Abusers Exploit Technology. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. ACM, New York, NY, USA, Article 667, 13 pages. https://doi.org/10.1145/3173574.3174241

[20] Claudia García-Moreno and World Health Organization. [n. d.]. WHO multi-country study on women's health and domestic violence against women: initial results on prevalence, health outcomes and women's responses. Retrieved Feb 28, 2019 from https://apps.who.int/iris/handle/10665/43309

[21] Margaret Gibelman and Sheldon R. Gelman. 1999. Safeguarding the Nonprofit Agency: The Role of the Board of Directors in Risk Management. *Residential Treatment for Children & Youth* 16, 4 (1999), 19–37. https://doi.org/10.1300/J007v16n04_02

[22] Anne Marie Goetz and John Gaventa. 2001. Bringing citizen voice and client focus into service delivery. (2001). https://opendocs.ids.ac.uk/opendocs/handle/123456789/3900

[23] Connie Golsteijn, Sarah Gallacher, Licia Capra, and Yvonne Rogers. 2016. Sens-Us: Designing Innovative Civic Technology for the Public Good. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems (DIS '16)*. ACM, New York, NY, USA, 39–49. https://doi.org/10.1145/2901790.2901877

[24] Mohamed Gulaid and Aditya Vashistha. 2013. Ila Dhageyso: An Interactive Voice Forum to Foster Transparent Governance in Somaliland. In *Proceedings of the Sixth International Conference on Information and Communications Technologies and Development: Notes - Volume 2 (ICTD '13)*. ACM, New York, NY, USA, 41–44. https://doi.org/10.1145/2517899.2517947

[25] K. Haugbólle, D. Pihl, and S.C. Gottlieb. 2015. Competitive Dialogue: Driving Innovation Through Procurement? *Procedia Economics and Finance* 21 (Jan. 2015), 555–562. https://doi.org/10.1016/S2212-5671(15)00212-9

[26] Samuel Hickey and Giles Mohan. 2004. *Participation–From Tyranny to Transformation?: Exploring New Approaches to Participation in Development.* Zed Books.

[27] Liz Kelly and Nicole Westmarland. 2015. *Domestic Violence Perpetrator Programmes: Steps Towards Change. Project Mirabal Final Report.* Project Mirabel Final Report. Durham University. 1–52 pages. https://www.dur.ac.uk/resources/criva/ProjectMirabalfinalreport.pdf

[28] Lisa Koeman, Vaiva Kalnikaité, and Yvonne Rogers. 2015. "Everyone Is Talking About It!": A Distributed Approach to Urban Voting Technology and Visualisations. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 3127–3136. https://doi.org/10.1145/2702123.2702263

[29] Matthew Marshall, John Vines, Pete Wright, David S. Kirk, Toby Lowe, and Rob Wilson. 2018. Accountability Work: Examining the Values, Technologies and Work Practices That Facilitate Transparency in Charities. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18)*. ACM, New York, NY, USA, Article 275, 12 pages. https://doi.org/10.1145/3173574.3173849

[30] Tara Matthews, Kathleen O'Leary, Anna Turner, Manya Sleeper, Jill Palzkill Woelfer, Martin Shelton, Cori Manthorne, Elizabeth F. Churchill, and Sunny Consolvo. 2017. Stories from Survivors: Privacy & Security Practices when Coping with Intimate Partner Abuse. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. ACM, New York, NY, USA, 2189–2201. https://doi.org/10.1145/3025453.3025875

[31] John McEldowney. 2016. Delivering Public Services in the United Kingdom in a Period of Austerity. In *Public and Social Services in Europe: From Public and Municipal to Private Sector Provision.* Palgrave Macmillan UK, London, 41–54. https://doi.org/10.1057/978-1-137-57499-2_4

[32] Patrick Olivier and Peter Wright. 2015. Digital Civics: Taking a Local Turn. *interactions* 22, 4 (June 2015), 61–63. https://doi.org/10.1145/2776885

[33] Jay Rainey, Kyle Montague, Pamela Briggs, Robert Anderson, Tom Nappey, and Patrick Olivier. 2019. Gabber: Supporting Voice in Participatory Qualitative Practices. *CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019)* (May 2019). https://doi.org/10.1145/3290605.3300607

[34] Peter Reason and Hilary Bradbury. 2008. The SAGE Handbook of Action Research. (2008). https://doi.org/10.4135/9781848607934

[35] Lesley Simmonds. 2018. The impact of local commissioning on victim services in England and Wales: An empirical study. *International Review of Victimology* (July 2018). https://doi.org/10.1177/0269758018787938

[36] Heather Strang, Lawrence Sherman, Barak Ariel, Scott Chilton, Robert Braddock, Tony Rowlinson, Nicky Cornelius, Robin Jarman, and Cristobal Weinborn. 2017. Reducing the Harm of Intimate Partner Violence: Randomized Controlled Trial of the Hampshire Constabulary CARA Experiment. *Cambridge Journal of Evidence-Based Policing* 1, 2 (Sept. 2017), 160–173. https://doi.org/10.1007/s41887-017-0007-x

[37] Angelika Strohmayer, Mary Laing, and Rob Comber. 2017. Technologies and Social Justice Outcomes in Sex Work Charities: Fighting Stigma, Saving Lives. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI '17)*. ACM, New York, NY, USA, 3352–3364. https://doi.org/10.1145/3025453.3025615

[38] Angelika Strohmayer, Matthew Marshall, Nitya Verma, Chris Bopp, Roisin McNaney, Amy Voida, David S. Kirk, and Nicola J. Bidwell. 2018. Untold Stories: Working with Third Sector Organisations. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA '18)*. ACM, New York, NY, USA, W37:1–W37:8. https://doi.org/10.1145/3170427.3170608

[39] Nick Taylor, Justin Marshall, Alicia Blum-Ross, John Mills, Jon Rogers, Paul Egglestone, David M. Frohlich, Peter Wright, and Patrick Olivier. 2012. Viewpoint: Empowering Communities with Situated Voting Devices. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*. ACM, New York, NY, USA, 1361–1370. https://doi.org/10.1145/2207676.2208594

[40] Toby Lowe. [n. d.]. Performance management in the voluntary sector responding to complexity. *Voluntary Sector Review* 8, 3 ([n. d.]), 319–331. https://doi.org/10.1332/204080517X15006273841592

[41] Jonathan Quetzal Tritter and Alison McCallum. 2006. The snakes and ladders of user involvement: Moving beyond Arnstein. *Health Policy* 76, 2 (April 2006), 156–168. https://doi.org/10.1016/j.healthpol.2005.05.008

[42] Vasilis Vlachokyriakos, Rob Comber, Karim Ladha, Nick Taylor, Paul Dunphy, Patrick McCorry, and Patrick Olivier. 2014. PosterVote: expanding the action repertoire for local political activism. *ACM Conference on Designing Interactive Systems (DIS'14)* (2014). https://doi.org/10.1145/2598510.2598523

[43] Vasillis Vlachokyriakos, Clara Crivellaro, Christopher A. Le Dantec, Eric Gordon, Pete Wright, and Patrick Olivier. 2016. Digital Civics: Citizen Empowerment With and Through Technology. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16)*. ACM, New York, NY, USA, 1096–1099. https://doi.org/10.1145/2851581.2886436