Technologizing the Fight against Sexual Violence: A Critical Scoping

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Technologizing the Fight against Sexual Violence: A Critical Scoping

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Introduction

This note asks some critical questions about how the struggle against sexual violence in conflict links up with a major trend in humanitarian aid: namely, the turn towards technology and innovation as a strategy to improve the humanitarian sector and to more effectively address humanitarian issues.¹ The objective is to give practitioners and policymakers a better understanding of some of the potential challenges that might arise with respect to the use of technology for combating sexual violence. The note relies on a broad notion of ‘sexual violence’, including gender-based violence against women and men, as well as sexual violence and harassment by aid workers against beneficiaries and colleagues.

The note urges cautious optimism with respect to the potential role and relevance of technology. The use of technology should not be seen as an end in itself. Despite good intentions, technology does not always work as intended. Inadequate problem definitions mean that technological solutions may fail to respond to the real-life problems they have been deployed to deal with. One common reason for faulty problem definitions is that affected populations are often absent from innovation processes: they are not properly consulted or invited to participate in any meaningful way. The international community must be alert to serious ethical and legal issues that might arise from technological innovations within the aid sector: technology can produce new digital harms, whether through introducing risks, (in)visibilizing the suffering of certain groups, or generating undesirable consequences.

It has been noted that certain ‘buzzword’ issues in the aid sector – such as sexual violence in war, or innovation – go from being unrecognized, ignored or forgotten to become an industry that appropriates funding at the expense of attention and resources to other humanitarian needs and problems, including addressing root causes. For example, there has been concern that sexual violence ‘crowds out’ alternative framings with respect to women’s insecurity or that criminalization of sexual violence provides overly simplistic messages.²

The technology optimism and sometimes utopianism permeating the aid sector is articulated in the routine proclamations of digital humanitarian goods as ‘game changers’ or ‘revolutions in humanitarian affairs’. Critics have noted that technology and innovation are presented as the solutions to complex structural problems – and the framing of humanitarian problems accordingly shifts to problematizations being amenable to technological innovation and intervention. At the same time, the optics of being seen to engage in humanitarian activities has acquired its own commercial logic by creating a marketable moral economy of good intentions, which means that for-profit motifs play an increasingly important role in the identification, visibilization and mitigation of human suffering. Each of these developments warrants careful critical scrutiny – the merger of the two agendas even more so.
Taking the rise of ‘digital bodies’ as a point of departure, this note maps out four thematic areas where sexual violence and technology interact, with the aim of facilitating ethical reflection and collective discussion on the issue.

**Technologizing humanitarian space: the rise of digital bodies**

The much-touted technologizing of humanitarian space has brought many useful innovations to the sector. The use of cell-phones, social media platforms, satellites, drones, 3D printers, digital cash and biometric technology has changed how things are done, the speed and cost of doing things, as well as where things can be done from and by whom. The central capability of these technologies is that they generate massive amounts of data in a field traditionally afflicted by a lack of timely and accurate information. Digitization – the collection, conversion, storage, and sharing of data, and the use of digital technologies to collect and manage information about beneficiaries – increasingly shapes understandings of needs and responses to emergencies.

Discussions around gender and technology deployments in emergencies have often focused on the gendered (frequently used in this context as a synonym for ‘women’) nature of digital shadows and digital illiteracy. In recent years, there has been an increasing focus on digital risk and digital harms. Importantly, the use of digital technologies creates corresponding ‘digital bodies’ – images, information, biometrics, and other data stored in digital space – that represent the physical bodies of populations affected by conflict and natural hazards, but over which these populations have little say or control. Understanding this double risk – for the physical body as well as the digital body, and the interplay between the two – is crucial for properly gauging the role and relevance of technology in grappling with sexual violence. The point is not that digital and physical bodies are ‘the same’, but that compromising or neglecting the security of digital bodies may be as consequential in compromising the security and well-being of physical bodies.

1. ‘Reproductive rights’ and humanitarian wearables: some critical thoughts

How does historical and political context shape technology use, and how can the urgency of ending sexual violence legitimate intrusive interventions?

Wearables for tracking and protecting the health, safety and nutrition of aid recipients are an emergent type of intimate humanitarian goods. It is important to be aware of the historical and political context in which such goods will be deployed, and to be alert to how potentially extremely intrusive uses are legitimated by reference to the need/obligation to ‘do something’ – quickly.
Humanitarian wearables are conceptualized as smart devices that can be placed on or inside the bodies of aid beneficiaries for many purposes, including tracking and protecting health, safety and nutrition. This can happen by delivering or monitoring reproductive health; producing security and accountability through more efficient registration; or by monitoring or delivering nutrition. Wearables can be passive applications (apps) that can be downloaded to smartphones, tablets, and smartwatches that aid wayfinding; dedicated wearables that record activity; and more sophisticated multifunction wearables that also record multiple data streams including biomarkers (such as heart rate). Wearables can also combine data collection and drug delivery. Many of these apps and devices are designed to allow users to directly keep a record of their activities online or communicate with third-party websites used to track and analyze activity.

Operating upon the emergent interfaces between bio and sensor technology, wearables provide measurements, selections, screening, legibility, calculability and visibility – increasingly they are also becoming vehicles for physical delivery of medicine or reproductive control. Tracking operates through and upon multiple bodily layers: through general biodata, such as height, weight, gender, age and race; through bodily fluids, including blood, sweat, sperm and tears; and through the capture of individual characteristics, including but not limited to DNA, fingerprints, iris scans, and voice and face recognition.5

Of specific relevance to the topic of sexual violence are the opportunities for intervention provided by the emergency context – underpinned by implicit and explicit moral orientations about agency, suffering and perceived rights of intervention. How these affordances are understood by the public and by stakeholders in the humanitarian innovation field is important in the case of wearables. The affordances of the emergency context coupled with what is imagined to be technologically possible may engender a permissive imaginary where intrusive uses for intimate tracking devices in the Global South are conceptualized and legitimated. This is also tied in with historical colonial and humanitarian uses of bodily tracking devices for care and control of relevant ‘populations’ (such as the use of wristbands in refugee management and child nutrition).

In a remarkable passage of a recent article called ‘The Application of Wearable Technologies to Improve Healthcare in the World’s Poorest People’ in Technology and Investment, under the heading of ‘Case Study Two: Kibera Slum Nairobi’, the author imagines a series of uses for wearables in aid,

At the simplest level skin patches worn for weeks at a time could detect when a person develops fever. The same skin patch can detect hydration status. [...] Wearable sensors have multiple potential roles in infectious disease. One example, fever patches, has already been discussed. Other skin patches have
transdermal capability and can include ELISA technology that could enable early TB or HIV infections to be detected and treated early—this might prevent people from becoming chronically infected.... At the very least, these types of wearables would enable disease outbreak clusters to be identified and quarantined. New wearable technologies can be incorporated into intra-vaginal rings that not only incorporate sensors but also can potentially deliver interventions against infectious agents and vaccines. The application of wearable technology to infectious disease in manifold spanning surveillance through treatment.6

The composite of these suggestions— that users should wear tracking devices, including as a form of contraception, and that wearables could be a tool for quarantining individuals deemed to be part of ‘disease outbreak clusters’— raises multiple ethical questions with respect to women’s bodily integrity and reproductive rights and invites additional critical scrutiny of discourses surrounding the ability (and acceptability) of certain technologies to ‘fix’ structural problems.

2. Safeguarding: Can criminalization and software solve structural inequality?

What does it mean that the struggle against sexual violence is being increasingly quantified and remotely controlled—and based on criminal law sanctions? Do these approaches address the power differences that make sexual violence possible?

In 2018, sexual misconduct moved to the top of most agencies’ policy and public relations agendas. While the terminology and problem-framing vary widely across the sector, last year saw the rapid ascendency of the notion of ‘safeguarding’. While initially based on a UK legal definition that applied to vulnerable adults and children, safeguarding has acquired a broader meaning, which includes all actions by aid actors to protect staff from harm (abuse, sexual harassment and violence) and to ensure staff do not harm beneficiaries.7 As part of the safeguarding response, the UK government has launched a new Interpol/Save the Children-coordinated vetting project, Soteria, that will provide criminal record checks and improve information sharing.8

An important point concerns the current humanitarian turn to technology9 and the how of safeguarding regulations. As critics, we must be alert to efforts to ‘technologize’ safeguarding responses. Increasingly, humanitarian action is being quantified and remotely controlled.10 Humanitarian action is also increasingly being governed through criminal law and administrative sanctions. As commonly recognized, the central problem of criminalization is
that it is a simplistic solution to complex political problems, and that it obscures power relationships. The Soteria initiative fits well as an example of both trends.

The push for measurements and ‘evidence-based approaches’ engenders a framing of social life – and its problems – that lends itself to a focus on aspects of ‘the social’ that can be (or be made) classified/classifiable, counted/countable. This emphasis on quantification may give rise to a reductive form of accountability, resulting from distilling social life into too ‘neat categories’. In a parallel but closely related development, surveillance is becoming an increasingly common technique of humanitarian governance. While the stated objective is to protect humanitarian missions in an increasingly fractured humanitarian space, equipping humanitarian workers with tracking devices raises difficult ethical questions about privacy and work/life balance. It also risks creating a sense of complacency, if agencies rely on number crunching and digital processes to tell them what kind of risk their workers constitute (profile), where their workers are (location on map) and what they are doing (legible actions that produce data).

In sum, there is a need to be highly critical with respect to how these remote-control strategies – and the attendant criminal law and punitive measures attached to the initiatives – can correspond meaningfully to the need to reduce power imbalances and empower those in precarious positions – be they beneficiaries or staff.

3. Vulnerability and male harm: what algorithms can’t see becomes invisible

How do we produce knowledge about sexual violence? What is the relationship between gender and algorithmic justice? Can technology reshape the application of international legal protection?

This section uses UNHCR’s Vulnerability Assessment Framework (VAF) as a prism for elaborating on the notion of ‘ICT harm’ by reflecting on an example of data-driven screening practices in refugee protection. Algorithms are not neutral but deeply social and shaped by gendered and racialized logics of screening. This logic produces distinctions between ‘protectable’ and ‘undesirable’ civilian bodies. This means that when we contemplate the risk of ICT harms in humanitarian crisis responses, we must not only look at women but also include a focus on men and masculinity. In the following, it will be suggested that the shift from legal to social protection represented by systems such as the VAF represents a new type of gendered ‘digital shadow’, raising important issues of algorithmic justice.

How can vulnerability assessments comprise a crucial factor in the digital exclusion of male refugees? According to the prevailing understandings of vulnerability among actors in the
humanitarian field, women and children are assumed to be ‘the most vulnerable’, an assumption with significant practical effects. These perceptions of gender and vulnerability not only impact directly on program priorities but also shape screening efforts and data generation that legitimize these priorities: this reinforces the notion of women as vulnerable and of men’s specific gendered problems as invisible and irrelevant to vulnerability considerations.

The datafication of vulnerability – vulnerability, at present, being also something of a buzzword in the humanitarian field – has been gradual: UNHCR’s turn to data has happened as part of its decades-long effort to organize its operations and those of its implementing partners according to the principles of ‘results-based management’ (RBM). The ‘VAF’ was launched in Jordan in 2014 to develop a ‘robust model’ to map vulnerabilities of the Syrian non-camp population. VAF – a proxy means-testing mechanism – is promoted as central to identifying and ranking demographic vulnerability through a ‘vulnerability score’, where 1 is low vulnerability, 2 is mild, 3 is moderate, and 4 is high/severe. According to UNHCR, this provides “a comprehensive and collaborative data-driven system that features more in-depth collection of household information, and standardized definitions and benchmarks for determining vulnerability levels within different sectors”.¹⁶

This data-driven approach to vulnerability is premised on and perpetuates an a priori exclusion of male vulnerability. The working definition of ‘vulnerability’ developed by the humanitarian community for the Syrian Refugee Crisis in urban areas of Jordan is gender neutral. Vulnerability is the risk of exposure of Syrian refugee households to harm, primarily in relation to protection threats, inability to meet basic needs, limited access to basic services, food insecurity, and the ability of the population to cope with the consequences of this harm.

UNHCR has recognized the need to integrate a gender perspective into VAF, stating that the organization works to clarify how additional gender-sensitive analysis can be applied to the VAF models and results. However, the fact that VAF was designed without a gender perspective does not mean that it is gender neutral. Generally, there is a dearth of attention towards male vulnerability. A review of key VAF documentation from UNHCR’s data portal, including VAF policy documents, evaluations, training manuals, and PowerPoint presentations produced between 2013 and 2017 yield minimal information about men. VAF’s technical vocabulary and its analytical categories are largely silent on the lived vulnerabilities of men.

Through its mechanical determination of vulnerability as an outcome of datafication and ranking, VAF makes connections between gender and suffering invisible. UNHCR explains that gender-based violence has been deliberately left out from VAF data collection and observes that “the vulnerabilities of Female-headed households globally tend to be linked to harder to identify protection risks”.¹⁷ However, in this refugee population, it is
overwhelmingly men who work outside the home and who are expected to be breadwinners. Gender-based violence, sexual and otherwise, is often directed towards men because of their multiple identities as poor, refugee men. This can severely impact their coping capacity and greatly increase their vulnerability in specific gendered ways. By making this connection technically invisible, VAF contributes to obscure specific forms of male vulnerability while reinforcing the notion of women’s vulnerability as the key analytical problem.

Essentially, when male vulnerability is excluded from conceptualizations of protection problems, algorithmic representation, and data collection efforts through the home visit form, this vulnerability will remain invisible even with optimal implementation of the VAF. Because VAF represents the future of refugee protection – similar systems have been introduced under different names (EVAR in Egypt and VASyR in Lebanon) – critical attention must be given both to its gendered effects and the relationship between international legal protection and algorithmic justice.

4. Sexual violence as ‘innovation opportunity’: a licence to experiment?

What happens when sexual violence is reframed from a structural injustice problem to an innovation challenge? What are the risks of technological experimentation?

This final section considers aspects of the re-framing – or rebranding? – of gender-based violence as an ‘innovation opportunity’. In a seminal and searing critique, Abdelnour and Saeed considered how efficient stoves were adopted as a universal technical panacea for sexual violence in any conflict or refugee camp context. In the following, the concept of ‘humanitarian experimentation’ is taken as the starting point for reflecting on how technology may not only be ineffective but also directly harmful for victims of sexual violence.

As observed by Sandvik, Lindskov Jacobsen, and McDonald (2017), experimentation is a description of a defined, structured process to test and validate the effect and effectiveness of new products or approaches. Humanitarian work, due to its uncertain and often insecure context, is by nature experimental. Using well-known and tested approaches – technological, medical, nutritional or logistical, for example – in an uncertain environment does not make that practice experimental, though it may introduce risk through the variability of the context of its application. The use of untested approaches in uncertain environments provokes a need for more structured processes: it compounds the risk of experimental practice with the risks of unstable environments, raising the potential for experimentation to conflict with, rather than innovatively bolster, humanitarian principles and practices. At present, this type of practice can be observed with respect to many forms of humanitarian technology and humanitarian action based on the use of digital data. Yet, these practices are commonly
framed in a humanitarian innovation language in which the possibility that humanitarian principles could be compromised is omitted.20

Deployment of the tools and techniques mentioned above occur for a variety of stated reasons, most notably the ostensible goal of ‘protecting’ vulnerable populations. However, these often experimental applications of ICTs and digital data are occurring in the absence of agreed upon normative frameworks and accepted theory to guide their ethical and responsible use. Managing risk is a core component of the humanitarian initiative – whether these risks arise from operating in uncertain contexts or from ‘innovation’ practices – but not all risk is created equal. There is a stark ethical and practical difference between managing risk and introducing it, which is mitigated in other fields through experimentation and regulation. The widespread adoption of datafication significantly impacts the range and scale at which experimental ‘innovation’ practices affect humanitarian action. As part of this, the privatization and digitization of humanitarian action is on the rise, which invites a potentially adverse combination of commercial incentives, ethical standards and operational priorities into the fragile environments of humanitarian response.21

The concern here is how – not whether – the rise of digitization and datafication engenders a license to experiment with innovations in GBV. According to Obrecht (2016), “the exploratory and uncertain nature of innovation means that some degree of ‘failure’ is inherent, as results will often differ from expectations” and “[...] organizations and donors will need to become less risk averse and embrace ‘failing fast’ in order to support adaptation and improvement”.22 What are the risks of this mindset in the field of sexual/gender-based violence?

In a recent humanitarian innovation evaluation process, this author came across a number of project proposals that wanted to create apps and databases for vulnerable women where the depth and breadth of data extraction was significant, the intended benefit of the innovation limited (and not very innovative, largely duplicating existing products), and the ethical awareness and the risk analysis undertaken in the initial project phase dismayingly inadequate – bordering on non-existent. Shared problems included not properly understanding – or possibly even trying to understand – how the innovation would create/shape digital beneficiary bodies and the specific gendered aspect of these bodies; what risks would arise and what mitigating procedures should be put in place. Astonishingly, needs assessments were part of the proposed innovation cycle’s future activities and risks assessments frequently amounted to a concern about entitled beneficiaries who would want ‘more’.

As noted by Sandvik, Lindskov Jacobsen, and McDonald (2017), humanitarian innovations unevenly distribute harm, not only by favoring those that are prioritized by a technology’s assumptions, but also by exposing recipients of humanitarian assistance to the new harms posed by the underlying innovation itself. Even in the absence of ill intentions or negligence, the collection and use of sensitive data creates practical dynamics. Humanitarian actors – and
their partners – need to understand the linkage between datafication and harm distribution. The risks are not simply the failure of the technology, but the way that such failure limits or harms access to vital resources, such as humanitarian assistance. Another new type of insecurity emerges in the context of this experimental datafication endeavor: the risk that the digitized data may be used in ways that do not necessarily buttress the safety of recipients of aid and protection. 23

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<th>Why more scrutiny of humanitarian experimentation is needed</th>
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<td><strong>Combines</strong> extraordinary operational license afforded to humanitarian organizations &amp; exceptional freedom of private sector to trial unregulated technologies.</td>
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<td><strong>Deeply intrusive</strong>: Greatest license where population has least recourse.</td>
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<td><strong>Resource distribution</strong>? Fairness – who benefits?</td>
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<td><strong>Harm</strong> to reputations, legal liability for humanitarians?</td>
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<th>Risk mitigation: Focusing on imperatives and principles</th>
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<td><strong>Do no harm</strong>: must define and evaluate potential of intervention to cause harm. Proof of impact necessary component of analysis.</td>
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<td><strong>The principle of humanity</strong>: alleviating human suffering and preserving dignity. Assessment of impact on suffering; need for accountability mechanisms.</td>
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<td><strong>The principles of neutrality and impartiality</strong>: importance of transparency, including priorities of needs assessment, selection criteria for interventions, and predictable outcomes or impact of using an intervention.</td>
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<td><strong>The principle of independence</strong>: impact analysis, analysis of motivation including economic, political and military benefit.</td>
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Notes

1 This note is based on the author’s engagement as an academic commentator and ethics advisor in the humanitarian field and draws extensively on the author’s academic work and academic collaborations. The note is part of the ‘Do No Harm: Ethical Humanitarian Innovation’ and ‘Humanitarianism, Borders, and the Governance of Mobility: The EU and the 'Refugee Crisis” projects funded by the Research Council of Norway 2017–2020.


13 iTrack. Available at: www.itrack-project.eu/page/media_items/protecting-humanitarian-missions7.php


Sandvik, Jacobsen and McDonald, ibid.


For a full analysis of risk mitigation, see Sandvik, Kristin Bergtora, Katja Lindskov Jacobsen and Sean Martin McDonald (2017) ‘Do no harm: A taxonomy of the challenges of humanitarian experimentation’. *International Review of the Red Cross* 99(904): 319–344. For a discussion of the use of rights-based approaches (RBA) to data, see Kristin Bergtora Sandvik (under review) *Humanitarian wearables: digital bodies, experimentation and ethics*. Sandvik notes that using an RBA approach as the ‘solution’ to digital harms in the humanitarian field appears disengaged from any kind of articulated social justice agenda. This is deeply problematic, and risks shrinking and minimizing the site of struggle.
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