



Digital Humanitarianism: a Critical Discourse Analysis

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DIGITAL HUMANITARIANISM: A CRITICAL DISCOURSE ANALYSIS

Research-in-Progress

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Abstract

Early works in the field of Information and Communication Technology for Development (ICT4D) saw the state as central in designing and implementing development policy. Over time, this assumption has been questioned by recognition of the role played by non-state actors, private and supranational, in building and enacting development schemes. In the sub-domain of digital humanitarianism, private entities – especially, technology vendors partnering with national and supranational bodies – shape the implementation of humanitarian programmes in substantial ways. To understand the objectives informing private vendors’ action in digital humanitarianism, this paper conducts Critical Discourse Analysis (CDA) on a dataset of public sources (2019-2023) from vendors of biometric technologies that moved into humanitarianism. Identifying the discourses of mapping, providing and empowering as central to vendors’ narratives, the paper illuminates how private technology vendors participate in digital humanitarianism, and provides the basis for problematising the vendors’ discourse.

Keywords: digital humanitarianism; biometric technology; critical discourse analysis; ICT4D.

1 Introduction

In its first decades, the field of ICT4D relied on assumptions concerned with the role of technology in socio-economic development, and with the identification of entities that shaped development at multiple levels. One such assumption concerned the role of the state, widely seen as the primary entity tasked with designing and implementing development policy (Akpan, 2003). Combined with the role of private sector in corroborating an effective public sphere, a state-centred focus animated the first decades of the ICT4D field, giving rise to the notion of “e-governance for development” as a driver of ICT4D research (Madon, 2005, 2009; Walsham, 2017).

With the field’s evolution, such assumptions have however started to crumble. On the one hand, an overly positive view of ICTs as a maker of development has been contrasted with witnesses of adverse digital incorporation, defined by Heeks (2022) in terms of the harmful, rather than positive, effects that people experience by being incorporated into digital systems. As a result, an early logic of battling the “digital divide” (Warschauer, 2004) became questioned as a core aim of ICT4D, and juxtaposed with the experiences of data-induced harm lived by victims of adverse digital incorporation. On the other hand, the prominence of the state as a development actor has encountered the increasing importance of entities that, operating outside the governmental sphere, have acquired relevance in shaping development policy, generating substantial impact on beneficiaries and their treatment from development providers (Taylor & Broeders, 2015; Taylor, 2017).

With the conversion of humanitarian practices into digital work, digital humanitarianism is an area of ICT4D in which the shift from state- to multi-actor led development is particularly visible. In this paper I define *digital humanitarianism* as the assemblage of processes, means and technologies through which the practice of humanitarian work is digitised. I note how digital humanitarianism relies on a constellation of actors in which the private sector, and specifically vendors of biometric technologies that digitise individuals’ identities, plays a major role in shaping humanitarian schemes (Martin & Taylor, 2021; Martin, 2023). The prominence of private vendors in digital humanitarianism is met, at the same time, with limited knowledge of the vendors’ behaviour and logics: the ICT4D literature does not yet feature analyses of how private actors, which sell biometric technologies to agencies operating in humanitarianism, influence humanitarian work practices and affect their users.

Against this backdrop, this paper relies on Critical Discourse Analysis (CDA) to elicit the objectives that shape, and ultimately direct the work of private vendors in digital humanitarianism. CDA is seen by Avgerou and Bonina (2020) as an approach capable of uncovering how ideologies are generated, formed and codified through text. Drawing on a set of 56 publicly available sources including press releases, industry reports, media statements and blog posts from private vendors of digital technology for humanitarianism, I illuminate three key discourses – *mapping*, *empowering* and *providing* – that inform the action of private providers in humanitarian work. Illuminating such discourses offers the basis for future stages of the research, which are centred on testing such discourses through primary data collection and problematising them through the experience of beneficiaries subjected to diverse forms of humanitarian biometrics.

A central contribution of this research-in-progress paper is to elucidate the discourses of *mapping*, *providing* and *empowering* as the components of a data-for-humanitarianism philosophy that informs not only the action of private vendors, but even, and especially, their partnerships with governments and supranational organisations (Martin, 2023). Joint efforts such as the World Food Programme (WFP)’s partnership with the tech giant Palantir, or the donation of digital wallets to recipients of cash-for-work schemes led by the United Nations Human Commissioner for Refugees (UNHCR), illuminate the increasing presence of private vendors in the allegedly apolitical humanitarian space, underscoring the necessity of an analysis of such vendors’ logics (Martin & Taylor, 2021). Critical dis-

course analysis is a useful tool to make sense of key discourses, which leads to substantiate the theoretical link of data-for-humanitarianism that such organisations uphold. Only by theorising such a link is it possible to interrogate actors informed by it, and compare the tenets of such a link with the lived experience of users subjected to biometric humanitarian efforts.

The paper is structured as follows. I first identify three key streams in the emerging literature on digital humanitarianism, highlighting the need for greater awareness of private vendors' objectives in participating in humanitarian efforts. I then introduce CDA as a route to exploring such objectives, identifying the key discourses that a data-for-humanitarianism vision upholds. Having presented the discourses of *mapping*, *providing* and *empowering* as prominent in my analysis, I outline the future steps of this research-in-progress work and its expected contributions to the literature on digital humanitarianism.

2 Digital Humanitarianism: Streams of Literature

With the shift from the state to a multi-actor space as the empirical centre of ICT4D research, digital humanitarianism has entered the array of topics that the field of ICT4D is concerned with. *Digital humanitarianism* is defined here as the assemblage of processes, means and technologies through which the practice of humanitarian work is digitised. Such a definition is purposefully broad, and may partially contrast with field-centred definitions focusing on technologies operated for humanitarianism, or their surveillance affordances (Sandvik, 2017). With my assemblage-centred definition, I blend technical approaches to the subject with more sociotechnical visions, which leave more space to the organisational and societal implications of digitising long-established humanitarian practices.

With its blurred boundaries, mapping the emerging literature on digital humanitarianism requires a cross-field perspective. As noted in Madon and Schoemaker (2021), different streams of literature are centred on different conceptualisations of recipients of humanitarian efforts, which live in constant interplay with the technologies structuring humanitarian assistance. With a user-centred perspective, three such streams can be identified as follows:

Digital humanitarianism as a source of inclusion. This is a stream of literature that sees digital versions of humanitarian action as a route to maximising inclusion of beneficiaries, utilising technology to optimise assistance to them. Central to this stream is the logic according to which, if beneficiaries can be converted into machine-readable data, i.e. *datafied* as per the lexicon of Mayer-Schönberger and Cukier (2013), humanitarian providers can gain better appraisal of their needs, matching their identities with the entitlements assigned to each household. Promising to provide accurate representations of people accessing humanitarian assistance, digital technology arises as a means to solve two concomitant problems suffered by service providers: *inclusion errors*, meaning the erroneous inclusion of people not entitled to humanitarian schemes, and *exclusion errors*, meaning the exclusion of genuinely entitled beneficiaries (Devereux & Sabates-Wheeler, 2004). By virtue of converting people's identity in machine-readable data, initiatives such as digital wallets (through which vulnerable people can manage small sums of cash through digital means) and cash-for-work programmes are made possible, adding to the narrative of digitality for inclusion (Kaurin, 2019; Cheesman, 2022).

Digital humanitarianism as a route to surveillance. In open contrast with a stream of literature centred on the inclusive potential of technology, research has explored the surveillance affordances of digital systems applied to humanitarian practices. Published in 2013, Privacy International's report "Aiding Surveillance" (Hosein & Nyst, 2013) made the argument that digitised humanitarian schemes afforded undue forms of surveillance of beneficiaries, tracing their movements across borders and enhancing visibility to authorities capable of harm (Pelizza, 2020; Milan et al., 2021). Discourse on the surveillance aspects of digital humanitarianism has lately extended to the marketisation of humanitarian technologies: Martin (2023) argued that technology vendors can *aidwash* their name by working with

actors in the humanitarian sphere, thereby “laundering” reputations problematised by illicit surveillant behaviour (Martin, 2023: 2-3). Allowing interoperability across data platforms, technologies such as refugee databases (Schoemaker et al., 2021) are indeed designed to guarantee cross-authority profiling: this, notes Iazzolino (2021), is marketed as a means to prevent people from “robbing” benefits built for recipients of humanitarian schemes. Such concerns are echoed in a recent report by EuroMed Rights (2023), which highlights how artificial intelligence and other technology are increasingly implicated in strategies of border externalisation in the EU, with a prominent role border for private vendors. Large and in continuous expansion, the surveillance literature problematises the idea that digital technologies univocally work to “include” beneficiaries in architectures that benefit them.

Digital humanitarianism as an information provider. The two streams reviewed above share a rather passive vision of beneficiaries of humanitarian action: they are seen, in the one case, as objects of an externally directed social inclusion practice, and in the other, as objects of surveillant action. A third stream inverts the gaze, conferring an active role to beneficiaries: such a stream views them as agents proactively seeking information, leveraging the potential of digital technology. Recipients of humanitarian action find important digital tools to communicate: both with families and connections in countries of origin (Madianou & Miller, 2011; Smets, 2019), and with service providers in areas of settlement, be them transitional refugee camps or countries of long-term relocation (Latonero et al., 2019). Leveraging the informative potential of digital technologies, beneficiaries can rebuild their lives in the humanitarian setting: this leads to practices of high use of mobile devices, akin to dependency (von Deden et al., 2020), but also behaviours of individual and collective information seeking (Schreieck et al., 2017). Corroborated by interdisciplinary work, this third stream of literature reinstates the agency that subjects of humanitarian action exert when facing situations of vulnerability and resettlement.

Multidisciplinary and mutually interactive, these three streams offer an overview of the emerging literature on digital humanitarianism. While different in their assumptions, all streams share a core concept: the digitised humanitarian sector is a multi-actor one, where private companies play a major role in providing the technologies needed for digitising beneficiary identities. Such an assumption is met, at the same time, by a paucity of analyses of private providers: a paucity that is especially striking when noting the influence of such providers on the very dynamics of humanitarianism, and on the lived experiences of beneficiaries (Berliner & Prakash, 2015; Martin & Taylor, 2021). It is this blind spot that leads me to ask, *what are the objectives of technology vendors entering the humanitarian sector?*, and to devise a CDA methodology to answer this central research question.

3 Methodology

To study the objectives of technology vendors in joining the humanitarian sector, I collected 56 among press releases, industry reports, media statements and blog posts, all publicly available from vendors operating in the humanitarian industry. I followed Avgerou and Bonina (2020) in identifying two master documents guiding my CDA: one, the ID4Africa Annual Report 2017/2018, makes explicit the role of the private sector in serving humanitarian purposes, and also provides a summary of facts and statistics on identity in the African continent (ID4Africa, 2018). Another one, the Centre for Internet Studies report “Surveillance Enabling Identity Systems in Africa”, offers a critical perspective on the topic, also identifying some private providers in the industry (Centre for Internet Studies, 2022). I have restricted my source search to the time span 2019-2023 to simultaneously elicit recent sources, and allow sufficient spatial and chronological variety to inform the CDA.

In collecting publicly available sources, I have scoped the existing literature on biometric markets in order to provide representativity across three core dimensions:

- *Location.* As both the scoping reports I have consulted illuminate, technology vendors operate across a wide range of countries to support fulfilment of humanitarian needs. Therefore I selected sources

from different geographical locations, leading to a dataset that features companies working across over 30 countries. While this number has been on the rise (Hersey, 2022), the time point in which I collected these data offers a snapshot of a market, that of global biometrics, that has reached an estimated size of USD 43.54 billion in 2021 (Emergen Research, 2023).

- *Sector*. As illustrated by Martin and Taylor (2021), vendors that enter the field of humanitarianism do so with different industrial foci. Strong emphasis is placed on foci that afford better identification of beneficiaries, such as biometric databases (Iliadis & Acker, 2022) or facial recognition technologies (Martin, 2023). These relatively new foci feed into an industry where sectorial focus, with the common denominator of biometrics, has varied: new products build on the legacy of technologies that, such as fingerprints and iris scanners, have long been used by authorities to create unique records of people. I selected sources dealing with multiple technology provision types, spanning traditional biometrics and more experimental ones such as facial and voice recognition (Newell, 2020).

- *Actors*. While the two master reports consulted here have been a strong guidance to map proponents of digital technology for humanitarianism, a full review of the actors in this field is beyond the scope of this paper. I have however sought to ensure variety in the actors reviewed, and my dataset includes sources from different providers of technology for the humanitarian sector. Such a dataset provides the diversity needed for this initial research-in-progress exercise.

In conducting CDA on these sources, I have followed the three-step analysis detailed by Avgerou and Bonina (2020): first, I have narratively read all sources to identify common themes (Riessman, 1999). I have then elicited discourse clustering around similar communicative patterns, thereby arriving at the identification of *mapping*, *providing* and *empowering* as the central discourses in the corpus of data. Finally, I have read the data corpus again in the light of the three discourses, to identify commonalities across them and map their interactions. The analysis has resulted in a three-discourse taxonomy that sets the basis for the next steps of this research-in-progress work.

4 Critical Discourse Analysis: Technology Vendors in Digital Humanitarianism

Different vendors provide different articulations of their purposes when entering the humanitarian sector. Based on the collected sources, my analysis identifies *mapping*, *providing* and *empowering* as three central discourses in the vendors' narratives.

Mapping. A core need in the humanitarian sector is to make quantitative and qualitative sense of the target population, for the provider to establish entitlements and, in turn, be able to disburse them. This results in an urgency for providers to *map* their served population, assigning to each recipient the services, goods and provisions they are entitled to. In announcing its partnership with Palantir in 2019, the WFP made the following statement:

The sheer scale of WFP's operations, assisting some 90 million people in about 80 countries, means that even small efficiencies in operational and supply chain management can lead to dramatic savings. (...) Making this data accessible across the organization will help WFP become even more efficient in multiple programme areas, including cash-based transfers, supply chain optimization, and nutritional requirements.

The WFP leverages Palantir's technology through a platform, DOTS, that integrates different systems to apprehend the size and scale of target populations. Population measurement can be especially challenging under resource scarcity and forced displacement, where humanitarian organisations need to rapidly make sense of the size, needs and entitlements of people in transition to the host country. It is in this context that a narrative centred on leveraging technology for entering and retrieving recipient data is embarked upon by technology vendors, as exemplified by a project lead at Palantir:

WFP is all about operations (...) airplanes trucks, emergency response, where we work together with them to expand their capacity to make better and more informed decisions.

In the light of the complex needs of the humanitarian sector, a first cluster of provider narratives hence groups together statements centred on the power of technology to improve practices of decision-making. Such power comes from the notion of *mapping*, intended again as making sense, qualitatively and quantitatively, of the intended beneficiaries of humanitarian provisions. Identifying individuals through their biological features, biometric technologies enable the practice of matching a recipient's data to their entitlements: providing the technologies by which biometric recognition is performed, private vendors are afforded an ideal entry point in humanitarian sector.

Providing. The authorisation to provide services is predicated on people's successful authentication as someone who is entitled to access such services. Difficulties in mapping recipient populations hence result in difficulties of service provision: faulty or absent recipient registration, or a lacking linkage between recipient identity and entitlements, affect the ability of beneficiaries to access the food, cash or shelter they may need. When approaching completion of biometric registration drive for Afghan refugees in Pakistan, a UNHCR spokesperson paradigmatically declared:

More than 700,000 new smart identity cards have been issued to date (...) the new smart identity cards are an essential protection tool for Afghan refugees and give them faster and safer access to health and education facilities and to banking services.

Incorporating biometric and demographic data on individuals, smart cards associate each registered refugee with unique credentials, so to access in-kind and cash subsidies in a securely verified way. Such technologies, argues a data-for-humanitarianism orthodoxy, enable the disbursement of basic-need commodities in a way that protects at the same time the user, and the scarce-resource humanitarian system tasked with serving a vulnerable population. Increased vulnerability, as induced by humanitarian emergencies, violent conflict, and other factors prompting humanitarian action open up market opportunities for vendors, as the CEO of Palantir reveals:

Bad times are very good for Palantir because we build products that are robust, that are built for danger. (...) the general belief I had (...) just comes from building a software business, and seeing software in action in war where software together with heroism can really slay the giant.

In sum, accuracy of service provision is a heavily cited reason for humanitarian organisations to take up datafied technologies. A second discourse embarked upon from vendors is therefore centred on technology as enabler of authentication practices that, in turn, are capable of affording better service provision. The idea of *providing*, on which this discourse impinges, is predicated on the availability of technologies that discriminate entitled users from the non-entitled, thereby ensuring fairness of service provision and circumscribing leakage to the non-entitled. For such fair provision to happen, the supply of adequate machineries is crucial, which opens an important market space for technology vendors in the humanitarian sector.

Empowering. While mapping populations and providing them with services are central discourses in a humanitarian logic, an additional space for digital technologies is found in empowerment, intended as increasing independent decision-making and action by recipients of humanitarianism. Core instantiations of an empowerment discourse concern financial inclusion: providing digital payments, it is argued, endows vulnerable users with the ability to manage their finances, reaching out to the unbanked and enabling them to administrate their money (UNHCR, 2022). In pushing a digital wallet solution provided to women refugees by UN Gender, the German agency GIZ reports:

GIZ promoted the introduction of the JoMoPay (Jordan Mobile Payment) app, a digital wallet which enables users to make money transfers and payments with a smartphone (...) Agents provide cash-in services to users, who are then able to retrieve their money digitally. This is of particular benefit to refugees, women and migrant workers, since it saves them time and effort and also enables them to manage their money more independently.

The GIZ statement explains well the digital-wallets-for-empowerment logic. Noting how Jordanian law prohibits refugees from having a bank account, GIZ markets its digital wallet solution as a route to financial independence that, predicated on technology, enables users to receive money from cash-for-

work programmes and manage them independently. Gender empowerment enters the equation by targeting women beneficiaries, a logic aimed at bypassing the risk of intra-household abuse of power in cash assistance (UNHCR, 2022). Linking digital technologies to financial independence, a discourse on empowerment pervades vendors’ narratives, which directly relate the provision of technology in the hands of beneficiaries to their greater capability to decide on their own future.

Discourse	Central Tenets	Examples
Mapping	Using digital technologies to make quantitative and qualitative sense of target populations	Making (operational) data accessible across the organization will help WFP become even more efficient in multiple programme areas, including cash-based transfers, supply chain optimization, and nutritional requirements.
Providing	Leveraging digital technologies to cater services to target populations	The new smart identity cards are an essential protection tool for Afghan refugees and give them faster and safer access to health and education facilities and to banking services.
Empowering	Using digital tools to endow target populations with means of self-sustainment	Agents provide cash-in services to users, who are then able to retrieve their money digitally. This is of particular benefit to refugees, women and migrant workers, since it saves them time and effort and also enables them to manage their money more independently.

Table 1: Critical Discourse Analysis – Tenets of Core Discourses

Table 1 summarises the three discourses identified in my CDA. All three discourses reflect the stated objectives of technology vendors entering the humanitarian sector, at the same time illuminating the business opportunity related to such an entrance. Taken together, the three discourses form an initial picture of vendor narratives to be explored and problematised through primary data collection.

5 Conclusion

This paper used CDA to map three discourses that reflect the stated objectives of technology vendors in entering the humanitarian sector. Vendor narratives are especially important in a space that, like digital humanitarianism, reflects the move of ICT4D from a state-centred to a multi-actor field. As it moves through its next stages, my research seeks to use the CDA conducted here as a basis to collect primary data from technology vendors, which may be able to expand, detail and even contrast the streams of narrative illustrated here. In a subsequent phase, I seek to compare such narratives with the experience of beneficiaries of digital humanitarianism, interrogating the extent to which, and ways how, the benefits promised by technology vendors have been met in their lived experiences.

I expect two main contributions from this research-in-progress work. First, understanding vendors’ perspectives illuminates the stance of a central actor in the humanitarian industry, the private sector, which designs and implements the technologies through which humanitarian assistance is delivered. Making sense of vendors’ motivations is key to understand the drivers of humanitarian technology design, and of the way this intersects with people’s experience of it.

Second, recent research illuminates issues of injustice in humanitarian technology (Madon & Schoemaker, 2021; Cheesman, 2022). Such injustices range from the exclusion of entitled beneficiaries from aid programmes, to undue surveillance of vulnerable subjects, including refugees and asylum seekers, through technologies purportedly designed for humanitarian efforts. By making sense of vendors’ perspectives, this work puts me in the position to understand the genesis of injustice, illuminating how ideas of service provision and empowerment may end up into degenerative outcomes for users. Only

by understanding the genesis of such degenerative outcomes can we imagine ways to overcome them, fully exploiting the potential of technology to support fairer humanitarian practices.

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