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Reassembling the surveillable refugee body in the era of data-craving

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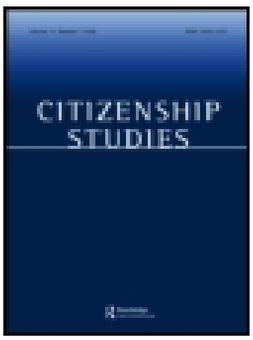

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Re-assembling the surveillable refugee body in the era of data-craving

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ABSTRACT

This article traces the travel of biometric data of Syrian refugees in Jordan through a hastily evolving political economy characterized by a pervasive craving for the extraction, storage and brokering of displacement data. It analyzes iris-enrollment as problematic acts of quasi-citizenship for the displaced requiring the performance of social and economic docility in order to attain identity, cash and service provision. Quasi-objects in the form of digital footprints are fashioned through infrastructures that simultaneously seek to model, yet fail to capture, socioeconomic existence in displacement contexts. Discourses of anti-fraud, donor dictates, upward accountability and strategies of financial inclusion of 'the unbanked', facilitate the marketization of the creation of data-doubles in laboratories of displacement and loopholes for externalization. Driven by increasingly blurred lines between technological, humanitarian and financial interests, this development has transformative effects on both those displaced, and on a humanitarian sector tasked with safeguarding their rights.

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Biometrics; humanitarianism; the unbanked; displacement data; surveillance capitalism; UNHCR; Accenture; World Bank Group

Introduction

In recent years, the expansion of large-scale systems extracting, storing and processing data about displacement has developed at an unprecedented pace. This demands studies of the use of data underpinning different claims and performances of citizenship, rights and entitlements (cf. Hughes and Forman 2017).

As observed by Claudia Aradau (2004) humanitarian action is characterized by sliding between registers of humanitarian care and sovereign border control, framing refugees as both *at* risk and *a* risk. But in line with the recent securitization of the development sector, and the developmentalization of humanitarian aid, states, institutions, corporations and non-state organizations increasingly treat data about migrants as the new gold. What we call 'data craving' can be understood as the intense desire for the extraction, storage and processing of different forms of data about displaced persons, including biometrics, and it now permeates operations in displacement contexts. Across settings, such as the Azraq refugee camp and amongst urban refugees in Amman in Jordan, or the Greek hotspot facilities, different kinds of data extraction and circulation have emerged.

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The questions that this article attempts to answer are: How does displacement data travel? What are the interests behind the craving for displacement data? And what are the implications for refugees and humanitarian organizations?

We use biometric technology within displacement contexts as an entry point to engage with these issues. Biometrics, meaning the 'measurement of life,' through technologies like fingerprints, iris scans, facial recognition, or DNA sampling, can be used to measure, analyze and process digital representation of unique biological data and behavioral traits for the purpose of identification (Ajana 2012, 2013). Biometrics have become part of the datafication of mobility contexts, facilitated by the digitization of the humanitarian sector (Sandvik et al. 2014, 3).

Biometrics represent a form of datafication, that is, the process of translating the flux of life into measurable and manipulable bits and bytes of computerized data (Hildebrandt 2013, 6). Biometric data is used for identification and verification purposes, where the former means that a biometric recording is checked against a larger database of recordings. The latter means that a live recording is checked against a profile already made in the database. Identification establishes the identity of a person (one-to-many comparisons), while verification proves that the person is who the person claims to be (one-to-one authentication) (Magnet 2011). Iris-enrollment is often used for such one-to-one verification purposes.

The desire for biometric data goes well beyond displacement politics, and applies to the sphere of citizenship, as highlighted by recent discussions about the data-mining efforts of 'platform' or 'surveillance capitalism' (Srnicek 2016; Zuboff 2019). Unlike work on 'refugee economies' (Betts et al. 2017, 9) that focus on monitoring variations in refugees´ 'economic outcomes', and the potential of 'innovators', we follow the literature that critically analyzes questions about 'dataveillance', understood as the use of personal data systems in the continued monitoring and collection of data about behaviors or communications of persons across platforms (cf. Clarke 1988; Bigo 2014). Whether enacted upon citizens or the non-citizenry of the displaced, the data craving of humanitarian, technological and financial actors yields massive influence over the rights, duties and opportunities of different forms of populations (cf. Isin 2017, 15).

Lindskov Jacobsen (2017) has noted that scholarly links between biometrics and displacement tend to regard issues like terror, airports, smart borders, and border control. van der Ploeg (1999) has looked at the EU's Eurodac database as a design to make asylum seekers' fingerprints 'readable' and effectuating immobility practices. And Scheel (2017) has examined how information storage and transfer in visa systems constitute border differentiation. Recently, attention has been directed at the use of biometric technology by the humanitarian sector (Rahman et al. 2018; Madianou 2019). This aligns with a series of works on how such technology also reconstitutes humanitarian agency, the case of the UNHCR's biometric rollout attracting particular attention (cf. Lindskov Jacobsen 2010, 2017; Lodinová 2016). Some case studies applying these discussions to specific displacement contexts have concerned Afghan refugees (Lindskov Jacobsen 2015); Syrians in Jordan (Hoffman 2017) and Rohingya refugees in Bangladesh (Oh 2017).

Concerning citizenship, Ajana (2012) argues that biometrics reduces the principle of citizenship to processes of differentiating between biological identities through two categories: The mobile and visible citizen-consumer from whom data is extracted in order to maximize service provisions and economic utility, while for the 'risky other', the

data reifies the invisibility of racializing and nationalized hierarchies. Similarly, Muller (2010) talks of biometrics as intensifying the preservation or restriction of rights and entitlements through 'identity management'.

Both points can be linked to Hilhorst and Jansen´s (2010, 1124) argument that, in many refugee camps, the host state's executive power and responsibilities have been delegated to the UNHCR, which therefore function as a 'sovereign handing out something comparable to citizenship' based on a social humanitarian contract between 'quasi state-citizens' and the organization. Here, Engin Isin´s (2008) concept of 'acts of citizenship' helps to nuance those relations between the quasi state-citizen and humanitarian organizations mediated through biometrics. The act of biometric enrollment can be seen as requiring refugees to perform certain acts and roles to obtain the associated entitlements. Performing docility is key to the assembling and re-assembling of webs of rights, duties and consumption opportunities. This can be perceived as a form of quasi-coerced alliance (Haioty 2016), defined as when one or more actors involved in a transaction are either forced to abide by the rules of a transaction or are otherwise placed in a position in which rejecting a transaction can incur a loss beyond the scope of the rejected proposition.

To analyze this process, the article invokes an interdisciplinary perspective combining forced migration, critical humanitarian and science and technology studies (STS). The choice of STS is here motivated by our desire to shed light on the sociotechnical aspects of biometric displacement politics. A suitable entry point to this considers the acts of quasi state-citizenship in relation to displacement data as overlapping with *humanitarian supply chains* supported by material, information and financial flows (cf. Tomasini and Van Wassenhove 2009). More specifically, we analyze the continuous design and coordination of these supply chains through concepts like the quasi-object, which focuses on the transformative capacity of the nonhuman once transferred to the human and vice-versa (Serres 1982; Latour 1996); infrastructures, which allows for a deeper dive into the relational aspects (Star and Ruhleder 1996; Bowker and Star 1999) underpinning the normalization of biometrics in refugee management; and Callon´s (cf. 1998) work on market building and human/non-human translations (Callon, Law, and Rip 1986: cf. Latour 1987).

If data is the new gold, then the infrastructures used to generate it are themselves of great political and economic value. Yet, only few analyses exist, pertaining to the political economy and financial dynamics that externalizes dataveillance to the displaced via biometric infrastructures (see however Lemberg-Pedersen, Hansen and Halpern 2020).

Such an analysis could be seen as exemplifying Shoshana Zuboff´s (2019) reinterpretation of surveillance capitalism, as an emergent form of capitalism that instrumentalizes the experiences of citizen consumers as the raw material for the commercial practices of extraction, prediction, and sales. Yet, our focus on 'surveillable refugee bodies' (Haioty 2016) and their acts of quasi state-citizenship addresses crucial dynamics beyond her conception of capitalism, digital dispossession and consuming citizens. Namely, the article contributes to the understudied area of the often invisible relations between commercial and financial actors and humanitarian biometrics, and how these can serve to facilitate legal and political 'loopholes of externalization' for companies into displacement contexts. By viewing biometric enrollment of refugees within contexts of strategic and commercial partnerships, we add to an emerging literature on the

financialization and marketization of humanitarian management, such as cash transfers to Syrian refugees in Jordan (Hagen-Zanker et al. 2017; cf. Aitken 2017; Franck 2018).

The travel of displacement data through technological, humanitarian and financial tools has been conceptualized as a form of 'financial-humanitarianism' (Tazzioli 2019). This aligns Gabor and Brooks´ (2017) identification of a vision in international development politics to accelerate the 'financial inclusion' of the world's 'unbanked populations'. The unbanked are those without formal ties to financial institutions, a categorization that thus traverses the citizen/non-citizen-divide, and includes asylum seekers and refugees (see also World Bank Group 2012).

After some methodological reflections, the subsequent section embarks on the travel of biometric displacement data by engaging with the practice of humanitarian iris-enrollment based on the case of UNHCR and IrisGuard´s operations in Jordan. The section after this describes the travel of this data through the emergence of a distinct fusion of financial technologies (fintech) and humanitarian logistics in UNHCR operations, and how this financializes displaced people. Another section then details how displacement is also marketized through interaction with influential commercial on the lucrative market for technological infrastructures. Finally follows a conclusion.

Method

To trace the journey of displacement data about surveillable refugee bodies through infrastructures assembled by humanitarian-commercial-financial interests, we combine the qualitative methods of field interviews and visits and desk research of publicly available documents from online databases and archives. Five semi-structured interviews with staff members from the UNHCR and the IOM were conducted in 2015 by one of the authors, in the registration facility in Amman (Khalda), in Zaatari Refugee camp, and at the UNHCR ICT center in Amman, Jordan. Between 2017 and 2019, the authors also conducted field observations at several humanitarianism, aid, and techvelopment events, where initiatives on displacement data and cross-sectorial collaborations were presented. These were hosted by, respectively, the UNHCR, the Danish Ministry of Foreign Affairs and the Danish Refugee Council. One of the authors also conducted field observations at the then-newly opened World Bank Group-UNHCR Joint Data Center in the UN city in Copenhagen. The desk research complemented these findings.

One possible limitation with this research design is that its interviews, observations and data collection from the field were carried out over an extended period (2015–2019). As such, the data collection spanned from a point where biometric data collection in displacement settings transformed from novelty to widespread practice. However, this very feature is also what allows us to engage with the evolution and travels of displacement data during this period, thus contributing to the understudied political economy of partnerships between humanitarian organizations, private companies and financial actors.

The methodology behind the collection of data was inspired by George Marcus´ approach to multi-sited ethnography (1995). The intention was to visit multiple locations, in order to take into account the dynamic and structural relations characterizing the humanitarian logistics behind refugee management. This approach is also in line with Donna Haraway´s (1988) argument that all knowledge is situated and located, depending

on the multiple positions of the researcher and the researched. This point is in fact of crucial importance, since the task at hand is *the production of knowledge about some ways of producing knowledge about someone*.

Incidentally, our individual positionalities also had an impact, since one of the researchers´ background and proficiency in Arabic, allowed her access to information from UNHCR, local staffers and locals during fieldwork in Jordan. Our positions as, respectively, independent researcher and academic male staff at a university in the global North, also facilitated attendance to the aforementioned events and conferences.

It must, therefore, be acknowledged, first, that the political economies underpinning the humanitarian production of displacement data and academia cannot be clearly demarcated. Second, that neither form of knowledge production amounts to neutral 'discoveries', but instead express 'power-charged social relations' of ongoing conversations (Haraway 1988, 585). These points highlight the risk of reaffirming existing power asymmetries that continue to face research in displacement contexts.

Derived from postcolonial reflections, Tuck and Yang (2014, 224) argue the importance of acknowledging that colonial matrices of power can tie together researchers' sense-of-selves with an assumed entitlement to knowledge-of-Others. This connects to Pascucci´s (2017, 250) point about the risk of 'over-research' and 'research fatigue' of certain displacement contexts, and how these problems are often linked to access through humanitarian infrastructures. Our analysis fashions out one, albeit not the only possible, negotiation of these challenges: We collect knowledge not from the already surveilled bodies of displaced people, but instead from and about the actors in the humanitarian-financial-technological political economy through which displacement data travels. The following section turns to examine UNHCR-practices of iris-enrollment.

UNHCR, refugee iris-enrollment and the journey of displacement data

It was shortly after the 9/11 attacks that the UN ExCom advisory board, comprised by member states, recommended the construction of a standardized global biometrics system. One of the UNHCR's early uses of iris-technology then came with the repatriation of Afghan refugees in Pakistan in 2002 when the companies BioID and Iridian partnered to provide the UNHCR with identification technologies leading to the iris-enrollment of over 950.000 Afghan refugees. Also in 2002, the UNHCR implemented its first version of proGres (Profile Global Registration System) as an IT case management tool storing data locally.

Eight years later, the UNHCR implemented its proactive biometrics-policy 'Policy on Biometrics in Refugee Registration and Verification Processes' UNHCR (2010). Then, in 2013, alongside the company Accenture, it created the Biometric Identity Management System (BIMS), which was developed through tests on the populations of the Dzaleka refugee camp in Malawi (cf. Lindskov Jacobsen 2015). Here the fingerprints, iris-data and facial images of 17.000 refugees were captured. From 2015, the BIMS was rolled out to camps in Thailand and Chad and by 2018 and more than 7 million displaced persons were enrolled in the system. The UNHCR is now paving the way for integrating proGres v.4 and BIMS, alongside other identity management systems, into a single central database called PRIMES (Population Registration and Identity Management EcoSystem).

The infrastructures of digital displacement management change according to geopolitics, technologies and market developments. In STS, infrastructures are perceived as relational, functional systems comprising classifications and social constructions. Their visibility is often seen as contingent upon them being questioned, rejected, or in other ways breaking down (cf. Star and Ruhleder 1996; Star & Bowker 1999, 2). Invoking the conceptual framework of David Harvey, Zuboff (2019, 99–100) argues that infrastructures of data-craving create 'digital dispossession'. However, we should note that unlike dispossession in the physical realm, the digital sphere is not characterized by information scarcity (Morozov 2019). Rather, refugee biometrics infrastructures function by extracting information, and manufacturing from it hybrids of nature-culture (Bowker and Star 1999), such as iris- or fingerprint-data. The sum of these digital footprints then constitutes the *data-doubles* of the displaced. While such data are often presented as the raw essence of identity, the categories are in fact 'cooked' and constantly re-assembled, covering over a fundamental heterogeneity (Bowker 2013). This connects to a point made by Roger Clarke, namely that

> Surveillance technologies do not monitor people *qua* individuals, but instead operate through processes of disassembling and reassembling. People are broken down into a series of discrete informational flows which are stabilized and captured according to pre-established classificatory criteria. They are then transported to centralized locations to be reassembled and combined in ways that serve institutional agendas (quoted in Raley 2013).

The UNHCR's biometric registration of refugees in Jordan began in 2013 as the organization introduced biometric software to displacement contexts in five Middle Eastern countries. This was done through software from the Jordanian company IrisGuard, who had developed iris-scanners utilized by homeland security and the banking sector, in partnership with the Jordanian Government, and the World Bank Group. The outcome was the EyeGuard AD100.

Western humanitarian organizations often justify dataveillance practices as demonstrating effectiveness and upward accountability to donors, and immunization against political critique, through the production of disaggregated data about beneficiaries (Misselwitz and Hanafi 2010, 371; Rahman, Verhaert, and Nyst 2018). The UNHCR argues that iris recognition technology makes possible early detection of duplicate registrations, which is labeled fraud, when refugees purposely seek to register more than once. Moreover, the registration processes become faster, a desirable feature in displacement contexts where thousands of people need to be registered on a daily basis (cf. Nambu 2014). During an interview at the ICT center in Amman, a staffer also relayed these motivations, adding to them the challenge of 'donor fatigue':

> Obviously, trying to minimize recycling, the duplicate registrations, helps for a lot of different reasons. One is, obviously, it makes for good numbers, and makes for a more accurate way of how we're dealing with our population, but it has the domino effect, making sure that we have accurate numbers so it increases donor-confidence in what we're doing, which is a big factor when we're [an] organization that's funded exclusively by donors. So when you hit donor-fatigue, which sadly we have, you have to learn to do more with less. So this is a big factor (Informant 2 UNHCR ICT Amman, personal communication, October 14th, 2015).

For displaced persons, however, dataveillance through biometrical systems also problematizes organizations´ downward accountability, bringing with it risks like violated

privacy, coerced extraction and data misuse (Ebrahim 2003, 814). Also, spoofing, that is, the reverse-engineering of iris-data, is predicted to emerge as a problem, which could increase the risk of identity-theft for enrolled refugees (Rahman, Verhaert, and Nyst 2018, 4). The collection, categorization and storage of data about displaced persons can have more to do with the interests of donors than with the safety and protection of the displaced population (Farraj 2011). While discourses aligned with data craving often portray these two forms of accountability as 'dual wins,' an expansion of upward accountability along with an ideal of 'clear audit trails' may result in a diminished downward accountability (Madianou 2019).

Still, iris-enrollment has emerged as a widespread humanitarian technology. While the face is a social organ subject to three-dimensional expressions and changes over time, human irises are typically fully developed by the 36th month of gestation. In comparison to other biological features like fingerprints or faces, irises are thus less likely to change. Through the binary response of verification, the technology forces the body to communicate its validity independent of its proprietor´s willingness to do so (cf. Aas 2006). The iris-scanner thus works to rule the potentially unruly.

The UNHCR-IrisGuard partnership illustrates that iris-data may hold transformative capacity also on those designing iris-scanners, as well as those using it to extract, store or 'broker' information, here understood as actors specializing in the collection and exchange of digital footprints of the displaced (cf. Crain 2018, 90). Quasi-coerced alliances run both ways. For conceptualizing iris-data as a *quasi-object* means that it is 'not an object, but it is one nevertheless since it is not a subject, since it is in the world; it is also a quasi-subject since it marks or designates a subject who, without it, would not be a subject'. (Serres 1982, 225). This emphasis on the indeterminate movement of the object, the value it is assigned, and its transformative capacity on those moving it (cf. Latour 1996, 16) aids in understanding how iris-data continuously changes, independent of its proprietor, to which it is no longer confined after having been generated. Humanitarian and financial actors´ reassembling of iris-data further distances refugees ´ agency from the translations of their own identity.

The meeting between the refugee as an iris-holder and the iris-scanner as an iris-data generator signifies the different roles assumed by the human and the non-human. Meanwhile, the meeting between the human and non-human actant creates a third actant, i.e. the iris-data. During its travel, the iris-data´s simultaneous transformation of its new proprietor(s), and its dismantling of the actual iris-holder reconfigures the ontological conception of the biometrically enrolled refugee body. The ramifications of this for the humanitarian sector are the topic of the following section.

The displaced and the unbanked on the frontiers of humanitarian financialization

Maintaining a fixed stare is necessary for the iris-scanning machine to detect and record one´s iris-pattern and generate the iris-data in a demodulation process. In the Zaatari and Azraq refugee camps, the World Food Programme (WFP) rolled out its Building Blocks-pilot, by distributing aid through a combination of biometrics, blockchain technology and algorithms. To pay for purchases at the grocery store, refugees must scan their irises, which serve as biometric verification, as explained in an 6 October 2016

article on the WFP website. Behind this conditioned act lies a technological infrastructure wherein the person´s iris-data is processed via algorithmic machine learning in order to sort through the data and authenticate the person as someone entitled to purchase. The consumer and credit history of the refugee is then permanently stored on the blockchain, accessible to WFP and the UNHCR.

Outside the Jordanian camps, the EyeGuard AD100 was retrofitted to some Cairo-Amman Bank ATM machines (Mayhew 2012), and later expanded to urban settings. Once enrolled, refugee populations have several encounters with the EyeGuard AD100 machine, as biometric capture is required for identity verification, grocery shopping and cash withdrawal. In January 2016, the technology was upgraded via the EyeCloud Financial Inclusion Platform (UNHCR 2017), where the UNHCR provides a virtual bank accessible to collaborating NGOs dispersing assistance. Alongside the Cairo-Amman Bank, and IrisGuard, the UNHCR also created a pilot project, the Common Cash Facility (CCF), which has evolved to facilitate aid delivery of nine organizations to 90% of the non-encamped refugees in Jordan.

Describing the rationale for these systems, a UNHCR staffer interviewed in 2015 at the Registration Facility in Khalda, invoked the following reasons:

> For us we're trying to give refugees that . . . at a really time that's tough for them their dignity. Where for example a female head of household maybe she cannot go at 10 a.m. on a Monday morning to the charity or to line up even outside UNHCR. Rather with this . . . with using the iris, using the bank, using the cash system, they can go whenever they want. (Informant 3 UNHCR, Reg. Fac. Khalda, personal communication, 18 October 2015).

Similar to how the biometric roll-out is justified inside the camps, the staffer´s seamlessly fluent link between iris scan, dignity and financial inclusion and service provision illustrates how the quasi-coerced nature of the financial-humanitarian alliance also merge different rationalities: Biometric extraction, blockchain technology and aid delivery, in conjunction, means that the UNHCR internalizes into its *modus operandi* the function of a credit institution.

This humanitarian purpose creep towards financialization was clearly articulated by the General-Secretary of the UNHCR, Fillipo Grandi, on medium.com, 18 May 2017. Here, Grandi explained how the response to the Syrian refugee crisis had changed the organization´s response towards 'innovation through technology'. Collaborating with financial actors and tech companies, he said, the Agency was now pursuing the construction of 'credit history and economic identity' for the displaced, in order to 'enable access to more financial services'.

The iris-enrollment practices of the UNHCR and WFP can therefore be seen as a double enactment of what a 'proper' refugee is and does: It is a person readily available to constantly verify a pre-approved identity, thus solving 'the problem' of authentication for donors and agencies. And it is also someone who continues to perform the act of recording personal transactional and credit behavior.

The humanitarian-fintech partnership of CCF has set in place an infrastructure that generates and stores what a UNHCR-commissioned report conducted by the Cash Learning Partnership (CaLP) calls 'real-time refugee withdrawal data' (Gilert and Austin 2017, 6). This is based on the recorded times and places of refugees´ cash withdrawals. The UNHCR argues that this public-private partnership generates more

accountability and 'value for money' (UNHCR 2017b). According to CaLP, the data about refugees´ daily lives could be converted into trend analyses of their purchasing power and consumer behavior at the level of households. Although issues of legality and compliance currently prevent the transfer of the CCF to camp settings or non-registered refugees, the report did hold out the promise that CCF-like operations could be expanded to other groups, but noted that this required the construction of a 'reliable beneficiary database' (Gilert and Austin 2017, 6). In other words, it requires stable and predictable levels of surveillable displacees to be financially included.

The CCF´s creation of digital footprints for the displaced via biometrics represents a way of 'banking the unbanked', that is, by granting global finance a venue through which the informal household economics of displaced persons, asylum seekers and refugees are converted into generators of recordable financial assets (cf. Gabor and Brooks 2017). This policy of financialized recording of the unbanked is also pursued through instruments like the World Bank Group-European Bank for Reconstruction and Development´s Global Concessional Financing Facility (GCFF) designed to channel development aid to refugees and host communities in the MENA region. This confirms Muller´s (2010) point that biometric 'identity management' has evolved from a focus on identification, and towards authentication, or verification, as granting access to resources or privileges.

After 2015, discourses about 'the problem of the unbanked' and the need to accelerate change have attained an even more dominant position (UNHCR and Social Performance Task Force 2017; MicroFinancia, Sida and UNHCR 2018). The drive to enroll and establish the credit and consumption histories of the unbanked and displaced through digital footprints has become an inextricable force driving the humanitarian data craving. For instance, the report 'Serving refugee populations: The next financial inclusion frontier' (2018) conceptualizes displacement phases according to financial sector service demands. Thus, it states a need for survival cash and debt repayment during the 'arrival phase'; for savings, remittances, micro/consumer-credits and health insurance during 'initial displacement'; for savings products, micro/consumer credit, mortgage, business loans and health insurance during 'protracted displacement' and for full host-like financial services during integration and 'permanence' (UNHCR and Social Performance Task Force 2017, 7). To the displaced, this humanitarian fintech-expansion is predicated upon the assumptions of neoliberal responsibilization. This has the effect of depicting the individual's voluntary registration, planning and mapping as a solution to displacement. But this also obscures the socio-economic and structural factors perpetuating dynamics of protracted displacement, such as exploitation, oppression, race, class and gender.

A pervasive problem for the financialized techvelopment-discourse on displacement data is the *actual* socioeconomic lives of refugees. Parallel to the case of dataveilled citizens, refugees can often be aware of the monitoring implications of humanitarian operations – if not about the exact volume and modes of reassembling of information about their lives – while partially continuing to act and perform in accordance to these data craving structures. Aware of the surveillance implications of humanitarian logistics, refugees often engage in wide-ranging informal socioeconomic realities, like family networks, barter trade and informal shops (cf. Ledwith 2014). These run in parallel with and often supervene on the formal structures. The quasi-coerced financial inclusion strategy and its impact on refugees reflects Callon's (cf. 1989) view, that although

economic models project abstractions onto a messy reality, they still reconstruct and reconstitute that reality.

While the financial inclusion discourse frames informal economics as fraud, one staffer in Khalda observed that often refugees did not do it 'for bad reasons' but 'for the most needier reasons': Having to sell vouchers to pay for other things, or if 'they could buy the food for cheaper in a marketplace rather than a supermarket, right where the vouchers are linked to'. (Informant 3 UNHCR, Reg.Fac. Khalda, personal communication, October 18th, 2015).

The discrepancy between the formally recorded economic behavior of refugees extracted through biometrics, and their informal transactions constitutes an important, but by institutions largely unacknowledged, rift between the financial and humanitarian actors partnering on displacement data. However, besides institutional drives towards financialization, there are also other economic incentives at work in the marketization of displacement. The following section details the political economy of the infrastructures underpinning the travel of displacement data through extraction, storage and processing.

The marketization of displacement data infrastructures

The surveillable refugee body is constantly reassembled through the digital footprints of displacement data. While this process is co-shaped by humanitarian and financial interests and institutions, the materiality of the technological infrastructures is not formed in a depoliticized void, but through political and economic processes.

The UNHCR-IrisGuard-Cairo Amman Bank partnership demonstrates how data craving in displacement contexts involves different actors. Some compete on markets for data exchange, while others pursue contracts for building, maintaining and evolving the infrastructures extracting and transmitting displacement data. Crucially, while the extraction of data from displaced quasi state-citizens may be problematic in terms of organizations´ downward accountability, the same practices also constitute an incredibly profitable market for the ICT and biometrics sector.

By 2019, the global biometric market was estimated to grow from 33 USD billion to 65.3 USD billion by 2024 (Market and Markets 2019). Many of the companies involved come from the security, defence and border control sectors, attracted by the significant economic incentives in the form of contracts and subcontracts for the digitizing humanitarian infrastructure and supply chain.

IrisGuard is one example. Founded in Jordan in 2001, its first major contract was for border control with the United Arab Emirates (UAE) in 2002. Through iris-enrollment, it developed a database called the 'IrisFarm' allowing to distinguish citizens from 'expellees', namely deported workers from India, Pakistan and Bangladesh attempting to re-enter the UAE on new documents (Daugman and Malhas 2004). A contract with India´s Unique Identification Authority soon followed before it joined forces in Jordan and Palestine with the Cairo Amman Bank in 2008, and then with the UNHCR in 2013 where it developed the EyePay platform. By then, the company had already gone international with a London-based subsidiary, IrisGuard UK Ltd., and offices in Switzerland and the UAE. In 2017, EyePay was integrated with the Ethereum blockchain. On its website, IrisGuard frames itself as a 'leader in financial inclusion for the world's

unbanked' and claims that more than 2,3 million refugees across the Middle East have been registered on their biometric database.

Through its involvement in displacement contexts, IrisGuard has secured patents on technologies like EyePay, EyeCloud and EyeCash, and consolidated itself on the global market for displacement biometrics. Its ownership is constituted by private equity funds, such as funds from Growthgate in 2010 and Goldman Sachs in 2017. Besides contracts with the UNHCR and the World Food Programme, in 2019, the company also won a contract with Zain Cash and the UNHCR on using iris technology through the EyePay Cash platform to disperse cash to refugees in Iraq, according to zain.com on 21 August 2019.

Other actors on the market for displacement data include Accenture, Atos, Sopria Steria, 3 M, Morpho, Motorola, NEC Advanced Security Solutions, Northrop Grumman, Leonardo, Precise Biometrics, SAGEM Morpho, Sagem Sécurité, Unisys and HP. Like IrisGuard, Accenture oscillates between humanitarian and border control operations, being a major recipient of contracts for the technological infrastructure not only from the UNHCR, but also from EU-Lisa (the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice).

In 2014, alongside its Bridge[3] Consortium partners Morpho and HP, Accenture was awarded a three-year framework contract, worth a total of € 27.6 million, for the maintenance of the EU's Visa Information System (VIS)-system (Commission 2013). Alongside consortium co-members Atos and HP, the company was also awarded a series of framework contracts by EU-Lisa for the maintenance and working order of the second generation Schengen Information System (SIS II) from 2014 to 2018, worth a total of more than €46 million (Lemberg-Pedersen, Hansen and Halpern 2020). In 2016, Accenture was invited to an EU-Lisa Industry Workshop to reflect on how its UNHCR contract for biometric registration could inspire the use of EU-Lisa's border control databases (EU-Lisa 2016, 3)

Accenture, originally the company Arthur Andersen, is a multinational company headquartered in Dublin functioning as a consultancy, technology and credit operations company in 120 countries. According to marketscreener.com on 5 December 2019, its major stockholders were: Vanguard Group Inc. (8.69%), Massachusetts Financial Services Co. (4.52%), SSoA Funds Management, Inc. (4.19%), Capital Research & Management Co. (2.50%) and BlackRock Fund Advisors (2.5%).

In 2015, Accenture was awarded a three-year contract by the UNHCR to perform the system maintenance and user training for the BIMS. According to a 19 May 2015 article on Accenture´s website, the contract involved fingerprint, iris data and facial image capture through its Unique Identity Service Platform (UISP), as well as substantial subcontracting to companies like WCC Smart Search & Match, Green Bit, GenKey, Warwick Warp, IriTech, SmartSensors and Cognitex.

Accenture was also responsible for developing the Ethereum-based blockchain technology which in conjunction with IrisGuard´s iris-scanners were installed in the supermarkets of the Azraq refugee camp, allowing for recording consumption behavior. The company partnered up with the WFP, starting with a test-population of 10.000 camp residents, then upscaled the technology to 50.000, before deploying it to 100.000 residents across several Jordanian camps.

According to UNHCR's Purchasing Order lists for contracts greater than 100.000 USD available on unhcr.org, between 2014 and 2018, the Agency awarded nine contracts

to IrisGuard for computer services and registration equipment worth 3,3 USD million; 21 contracts to Accenture for data collection equipment, software maintenance, computer, financial and corporate consultancy services worth 6.7 USD million; 26 contracts to Microsoft for computer and financial services, software design, development, implementation, maintenance and licenses, and corporate consultancy services worth 15.7 USD million; and 52 contracts to the Cairo Amman Bank for business/administrative and financial services totaling around 220,7 USD million. These four companies illustrate the recent growth of technological-humanitarian-financial alliances from 10 UNHCR contracts in 2014, to 18 in 2016, over 33 in 2017 and 39 in 2018. Similarly, between 2016 and 2018, the Cairo Amman Bank expanded its operations from 4, over 17 and to 31 contracts.

Through the public-private ID2020-platform, Accenture and Microsoft have also announced the ambition to develop a blockchain-based database capable of creating digital identities to more than 1,1 billion people globally, according to a 19 June 2017 article on Accenture´s website. The companies pursue the contracts for this endeavor by facilitating forums where the boundaries between states´, humanitarian and commercial interests are blurred. Here, humanitarian and development organizations are targeted as an emerging market.

One example is the 2019 opening of UNHCR-World Bank Joint Data Center on Forced Displacement in the UN-city in Copenhagen . Similarly, both IBM and Accenture served as founding members of the Partnership for Refugees initiative, established by the Obama administration in 2016. According to an 6 October 2019 article on the Accenture-website, the initiative led to 'more than 50 corporate commitments, totaling over 650 USD million in donations and commercial investments'.

Such Partnerships also allow companies to profile themselves toward customers and employees, for instance through IBM´s Impact Grants or Accenture´s Development Partnerships (ADP), both of which are pursued through discourses voicing humanitarian ambitions (cf. IBM 2017). Importantly, the strategy is mirrored by humanitarian organizations who, voicing need for tech and economic expertise, establish their own units to attract business engagement, such as the UNHCR´s Private Philanthropy and Partnerships (PPH) or the World Food Programme´s Innovation Accelerator. In these forums, the political economies of infrastructure contracts, humanitarianism and the financialization of displacement merge together.

On 4 December 2017, the UNHCR website published a blog post reporting from an ID2020 workshop where the UNHCR, the WFP Innovation Accelerator, Microsoft and Accenture discussed how to spread formal financial tools to the two billion unbanked people in the world. This is indistinguishable from Accenture´s own strategy on financial markets illustrated by its website-headline 'Unbanked population market opportunity', which frames unbanked populations 'a unique opportunity to create a new underbanked market'.

But the partnerships with the commercial and financial sectors around narratives of digital empowerment of the displaced, 'techvelopment', 'techplomacy', innovation and acceleration (cf. Scott-Smith 2016) have repercussions for humanitarian actors. In the words of the UNHCR itself (2017*a*, 13), 'companies in the private sector are [...] increasingly prominent and visible partners' when the Agency addresses displacement, 'contributing with funding, technical expertise, creativity and innovation'. At the same

time, however, displacement context also offer opportunities for businesses beyond contracts for the material infrastructure of humanitarian logistics, namely when such contexts function as laboratories for company tech development and patents.

The absence of common standards for data protection among NGOs and states in the global South, along with the legal immunity of UN institutions, creates what we can call 'loopholes of externalization'. These allow tech companies to avoid incurring direct accountability when testing and researching new technologies on displaced populations (cf. Rahman, Verhaert, and Nyst 2018, 2; Lindskov; Jacobsen 2017, 12). According to Mark Duffield (2013, 18), complex humanitarian crises in the global South have become 'cyber-humanitarian laboratories' functioning as feedback-loops for private companies to test new technologies for the extraction, analysis and application of humanitarian intelligence about displacement. Consequently, humanitarian organizations partnering with companies in displacement contexts also function as enablers for 'unregulated commercial laborator[ies] [for] data mining experimentation that would be politically difficult in the North'. (Duffield 2016, 153). While the biggest donors, corporations, and humanitarian organizations stem from the global North, the financial technologies are rolled out and tested in the global South. The fintech roll-out in protracted displacement crises in the global South therefore posits postcolonial and racialized dimensions of these large-scale dataveillance operations targeting the displaced as urgent areas of further research (cf. Lemberg-Pedersen 2019).

In this landscape, the difficulty with disentangling humanitarian from commercial interests also becomes problematic. This is illustrated by the 2016 joint UNHCR-Accenture report 'Connecting Refugees. How Internet and Mobile Connectivity can Improve Refugee Well-Being and Transform Humanitarian Action'. It states that in the future, the UNHCR will advocate the need for telecommunication providers to expand technological infrastructures for microwave links, satellite dishes and drones globally. The Agency also expresses intentions to invest in WI-FI network infrastructures through contracts with technology companies (UNHCR and Accenture 2016, 23). Co-authoring the report, Accenture, already a prominent recipient of UNHCR contracts, stands to gain many more from such advocacy.

Considering the architecture of the loopholes of externalization through which displacement data travels help us understand how the blurring of interests can lead to technological harms. Humanitarian organizations are not equipped with the expertise to set up and maintain the technological infrastructures pursued, and the question is to which extent they are able to safeguard against violations to data protection and privacy when the infrastructure of humanitarian data chains are imbricated in partnerships with profit-driven companies. Yet, with every instance of subcontracting to more companies – pervasive in the sectors of displacement, aid and financial infrastructures – another risk of insecure data handling follows.

The focus on upward accountability characterizing the data craving in humanitarian infrastructures grant corporation roles as de facto co-shapers of humanitarian practices, discourses and epistemologies. At the same time, the technological partnerships between the UNHCR, the World Bank or WFP increasingly turn humanitarian actors into brokers of displacement data. As information resellers and de facto credit institutions, they rely on infrastructures of commercial surveillance to monetize and transmit data upwards

along donor-structures or downwards to beneficiaries along the humanitarian supply chains.

Conclusion

Through an interdisciplinary and multi-sited approach, this article has explored the effects of the changing landscape of humanitarian action in displacement contexts. It has argued that biometric enrollment of refugees can be seen as acts of quasi-citizenship of a kind requiring docility to the extraction, storing and brokerage of their identity management and their daily economic activities. These acts are performative ones, carefully tuned to the managerial and financial interests responsible for re-assembling the surveillable refugee body and its rights, duties and entitlements.

Refugee acts of quasi-citizenship are increasingly determined by intersecting and blurred markets involving actors like the UNHCR, the EU, the World Bank Group, IrisGuard, Accenture and the Cairo Amman Bank. These markets are characterized by a pervasive craving for data about displaced populations as risky others. The identities of the displaced and dataveilled are thus re-assembled according to their aid needs, but also according to donor dictates concerned with risk management, and technological and financial market opportunities. The emphasis on managing the other as risk opens up avenues for research into how the normalization of data craving in displacement contexts today influences already vulnerable people in the Global South. Similarly, the absence of regulations that are present in the Global North pushes for research into the postcolonial and racialized disparities of digital rights for the displaced in the global South.

The financialization of displacement data can be compared with Shoshana Zuboff´s (2019) re-interpretation of the concept of surveillance capitalism.

Our focus on displaced populations entangled in webs of rights and duties, and managed through infrastructures thus liberates the analysis from Zuboff´s problematic assumptions about citizenship, dispossession and capitalism, whereby a consuming citizen is 'dispossessed' of data by private forces. Instead, our analysis of the iris-data demonstrates how the activity of data extraction and brokerage is assembled through quasi-coerced technological-humanitarian-financial complexes. Moreover, our analysis differs from hers by analyzing a trend that does not focus on dispossession and scarcity, but on the data-doubling and credit ranking of the displaced, enabled by the loopholes of externalization. Analyzing the marketized management of the displaced also adds a layer to the slide of metonomy between migrants as *at* risk and *a* risk, namely that refugees are now depicted *as* risk, their existence reassembled into profitable credit nodes through financialized securitization.

Programs like the CCF-partnership between UNHCR and Cairo Amman Bank-IrisGuard in Jordan and between the UNHCR, WFP and Accenture in the Zaatari and Azraq refugee camps financialize information about the displaced. They experiment with the conversion of displacement data into digital footprints, which can be used for verification and transaction purposes, and be brokered to financial institutions (cf. Aitken 2017). Reframed as development, humanitarian and refugee interventions, this policy drive results in a spiralling number of projects reassembling the displaced as the unbanked and steering them into a particular system of financial services (Gabor and Brooks 2017, 432). The reassembling of refugee identities through extraction and iris

data-doubles leads to urgent questions about privacy, technological harms and the docility required from displaced persons to access rights and entitlements. It must also lead to concerns about the incentives in the emergent political economy of humanitarian supply chains to displacement contexts. For by engaging in these partnerships, humanitarian organizations like the UNHCR increasingly function as data brokers accelerating the access of companies and financial institutions to the profitable new risk frontier of the world´s displaced populations.

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