

Datanalysing the uninsured: The coloniality of inclusive insurance platforms

Competition & Change
2022, Vol. 0(0) 1–21
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DOI: 10.1177/10245294221125849

journals.sagepub.com/home/cch



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Abstract

This article explores the rise of digital platforms for insurance coverage related to the financial inclusion agenda in developing and emerging economies. The current literature focuses mostly on the emergence and implications of Superplatforms based in core capitalist economies. Combining insights from studies on platform capitalism with post/decolonial scholarship in international political economy, we argue that the rise of inclusive insurance supported by platforms relies on three dimensions of what we term datanalysing: (a) an interoperable and safe digital infrastructure legitimized by international standards; (b) the collection of racially hierarchized data; and (c) the appropriation of data by objectifying the targeted individuals. As datanalysing turns populations from the Global South into profitable resources from which extracting financial value, it sustains colonial practices censuring and classifying subjugated populations. We illustrate our argument with the case of motor insurance coverage. Our analysis offers a wider empirical understanding of the global expansion of platform capitalism to previously unmarketable populations. We suggest that research should place greater emphasis on socio-historical dimensions to highlight the inconsistent and exploitative character of the inclusive insurance agenda.

Keywords

inclusive insurance, platform capitalism, coloniality, developing countries, international political economy

Introduction¹

The rise of platforms in contemporary capitalism calls to mind U.S.-based giants such as Google, Apple, Facebook, Amazon and Microsoft, as well as app-based services such as in ride-hailing (Uber, Lyft, Ola, etc.). Less well known, however, is the use of platforms for insurance coverage related to the financial inclusion agenda in developing and emerging economies. This agenda has

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exploded in the last few years. According to reports of the Centre for Financial Regulation and Inclusion, the number of initiatives on platform-based technology for inclusive insurance products specifically aimed at ‘excluded, underserved and low-income’ (IAIS, 2018: 5) populations across Asia, Latin America and Africa rose from 55 in 2017 to 298 in 2019 (Cenfri, 2017, 2019). International development actors and insurance companies work together to promote digitalization as a ‘game changer’ and an opportunity to partner with microinsurance institutions to ‘reach new customers [...] and help make the insurance market more inclusive’ (A2ii, 2018: 4). Unsurprisingly, the rise of inclusive insurance has gained momentum with the global COVID-19 pandemic, as social distancing and lockdowns foster digital financial transactions and the use of digital platforms to buy insurance products.²

Financial and international development actors commonly acknowledge that digital inclusive insurance markets depend on the use of ‘alternative data’, such as geographic information systems (GIS), reporting on social media activity, transactional payment history and mobile phone metadata (IIF and CFI, 2018: 7). These data feed their risk assessment to insure uninsured individuals and provide financial products at a lower cost (Costa et al., 2015). Collecting alternative data to predict customers’ behaviour, design insurance products accordingly and put a price tag on them has thus become a key element of the new ‘lifblood of insurance’ (World Bank, 2018: 17; CGAP, 2020). Yet, it comes to capitalizing on individuals presumed to provide insufficient information (Insight2impact, 2017; Cenfri, 2018). Actors selling inclusive insurance products view digital platforms as the most promising business model to overcome what they refer to as a ‘lack of information on customers’ (Insight2impact, 2018: 3). This prompts the question of how do inclusive insurance platforms shape such market expansion and what are the broader implications for the financial inclusion agenda?

We address this question drawing on insights from post/decolonial scholarship in international political economy (IPE) and studies on platform capitalism. A rising number of studies in IPE scrutinize the changing nature of contemporary capitalism linked to the platform business model. Meanwhile, this transformation is also analysed in development studies to assess the related impact on individuals targeted by the digital financial inclusion agenda. These two strands of literature tend, however, to ignore each other, in such a way as to overlook how such market expansion of inclusive insurance in the Global South³ employs discriminatory patterns different from those affecting core capitalist economies. Thereby, we argue that the inclusive insurance market expansion supported by platforms relies on three dimensions of what we term ‘datanalysing’: (a) an interoperable and safe digital infrastructure legitimized by international standards; (b) the collection of racially hierarchized data; and (c) the appropriation of data by objectifying the targeted populations. Datanalysing in this context is a reformulated continuity of colonial practices towards targeted populations, currently adopted by financial companies. We suggest that by using their intermediation practices lives of so-called ‘customers’ are turned into profitable ‘resources’ to extract financial value. This process hinges on standards providing a safe and reliable infrastructure on which data can be exchanged, while shaping new conditions of financial inclusion and exclusion. Our analysis shows the simultaneous process of racialized knowledge production – making sense of the subjugated recipients – and classification – turning the individual or groups of individuals into a reliable or unreliable risk.

We illustrate our argument with the case of motor insurance coverage. Our analysis draws on 30 in-depth expert interviews with chief executive officers and chief technology officers of inclusive insurance platforms, and representatives of think-tanks, foundations and international development agencies promoting the digitalization of inclusive insurance. We combine insights from the interviews with analysis of the institutional, technological and historical conditions of platforms

perpetuating colonial patterns of domination and appropriation. The corpus is composed of official texts and research reports of development organizations engaged in the digital financial inclusion agenda, as well as privacy policy documents and official statements from inclusive insurance companies. Inspired by previous studies conducted on platform-mediated labor (Doorn and Badger, 2020), the corpus combination helped us methodologically to develop a comprehensive picture of inclusive insurance platforms' practices in pursuit of market expansion.

The article is structured as follows. We start by providing a short description of inclusive insurance platforms. Next, we discuss the literature on platform capitalism and digital financial inclusion. This is then followed up with a research methods section. The fourth section presents our analytical framework on the coloniality of market expansion in platform capitalism. In section five, we analyse the three dimensions of datanalsying through which the coloniality of the inclusive insurance market expansion plays out, namely, data exchange standardization, collection and appropriation. This analysis is based on the case of motor insurance coverage. The conclusion wraps up the argument and draws implications for policymakers and for further research.

What are inclusive insurance platforms?

An insurance is a protection against risk, paid at a defined price at what is called a premium. It provides the contractual right to claim that protection should the insured-against event occurs, and commits the insurance provider to pay if and when such a time comes. Such promises to pay policyholders entail considerable liabilities. Probability calculus is used to model the weight given to the distribution of potential losses, their frequency and their scale. Unsurprisingly, the larger, the longer and the more granular the information gathered regarding the risk, the more accurate the probability calculated and, therefore, the greater the profits for the insurance company (Graz, 2019: 118).

An inclusive insurance platform is a private company providing a digital intermediation between an insurance company and an end user in the protection against a defined risk. It can be included in what the financial industry calls 'Fintech' or 'Insurtech', that is, firms enmeshing digital technologies such as Artificial Intelligence, Machine Learning, Cloud Computing or Internet of Things within financial services. The specific ability of an inclusive insurance platform is to collect information, organize risk distribution and eventually calculate the value of risk. As such, the firm model is close to what Srnicek (2016: 60–64) calls 'cloud platforms', enabling companies to outsource most of their information technology department for data analyses, storage and maintenance. Yet, in our case, an inclusive insurance platform establishes a direct relationship with the customer, thus, basing its revenue on the commissions from insurance sales and not from the rent of their services. Such platforms emerged as a new entity to support the sale of 'personalized' insurance products including alternative data in risk premium calculations to effectively meet 'consumers' needs' (The Digital Insurer, 2020). The rising use of smartphones and growing expenditures on digital infrastructures in developing and emerging economies has led to inclusive insurance market initiatives to elicit interest in harnessing alternative data in the same way as microcredit markets.

This article takes the case of motor insurance coverage to discuss the broader implications of the rise of inclusive insurance platforms in the Global South. This new way of providing motor insurance policies is important because it has become one of the most highly developed insurance lines able to analyse digital traces, predict risk scores and interoperate easily with other platform services. It is also closely related to core app-based services of platform capitalism, as it specifically targets ride-hailing platform workers. Lean platforms of ride-hailing services in the Global South

have mushroomed in the last couple of years (Eisenmeier, 2018). The inclusive insurance sector is increasingly interested in leveraging interoperable devices to provide uninsured, low and middle income drivers with car or motor bike protection (Catalyst Fund, 2020). Such a transformation of the value chain, in which insurance services use digital platforms to expand their market in developing and emerging economies, prompts us to discuss in more detail recent studies on the diffusion of platforms in contemporary capitalism and the emergence of digital technologies in the provision of financial products for development purposes.

Platform capitalism and digital financial inclusion: A review

A growing number of studies in IPE and cognate fields examine the structural shift likely to result from the rise of platform capitalism. For their part, development studies span several disciplinary fields to analyse the impact that such a transformation has on individuals targeted by the inclusive development agenda. Few, however, focus on the emergence of inclusive insurance platforms for risk assessment in this context. This section reviews and brings into dialogue these two close, yet mostly unconnected, literatures on platform capitalism and digital financial inclusion.

While many scholars see platforms as market organizers that facilitate the exchange of goods and services between users (Schmalensee and Evans, 2007), others understand platforms as embedded in the current transformations of capitalism (Smicek, 2016; Langley and Leyshon, 2017; Montalban et al., 2019; Rahman and Thelen, 2019). From this perspective, platforms impact the global organization of value extraction and accumulation. Montalban et al. (2019) thus describe the emergence of platforms as both a heterogenous process of contemporary capitalism and endogenous to its financialization. In a similar vein, yet with more emphasis on the endogenous contradictions of capitalism, Smicek (2016, 2018) sees platforms as not only engineering a new form of value extraction, based on data rather than labor, but also as contributing to the acceleration of capitalism and its contradictions in the wake of lean production systems and monopolization. Unsurprisingly, as the largest platform firms are based in the United States, a number of scholars view them as a logical continuation of the long-term underlying logic of U.S. imperialism (Jin, 2015). The monopolistic aspect of platforms has also prompted a debate on the extent to which this genuinely transforms capital accumulation, in particular regarding the type of rent upon which it relies (Acquier, 2017; Durand, 2020; Gruszka et al., 2020; Morozov, 2019).

Be that as it may, such an evolution of capitalist development has led to a collision of exploitative processes on a planetary scale – a so-called *carambolage* – not just of technology, but regarding the future of nature and work as well (Gruszka et al., 2020). As a result, platform capitalism needs distinct governing infrastructures. Bratton (2015) has arguably provided the most far-reaching account of such a new dominant architecture. In his view, we are witnessing a shift towards a planetary scale computation in which overlapping layers of a ‘standards-based technical-economic system’ gives rise to no less than a new ‘platform sovereignty’. Therefore, many studies have looked at how platforms oversee, discipline and shape groups of population and individual bodies through massive data analysis and extraction (Gillespie, 2010; Benavent, 2016; Bucher, 2018; Casilli and Méda, 2019; Gidaris, 2019; Zuboff, 2019). Users’ lives can, thus, be viewed as part of an enclosed, commercialized and manageable platform realm (Hands, 2013). Such studies provide valuable insights into the symbiosis of market coordination guiding individuals’ interactions for market purposes.

Finally, most studies highlight how platforms are inclined to expand their market scope and wield their influence. In this sense, they entail what some scholars call ‘platformization’. Helmond (2015) uses the concept in the narrow domain of how the web was transformed with the systematic

development of application programming interfaces allowing websites to more systematically collect data across the web. Poell et al. (2019) have forged a much broader understanding related to how platforms intervene in a wide range of societal arrangements. Platforms are then viewed as propagating their data-driven infrastructure via multi-sided market coordination processes, as well as governance frameworks in basically any and every industry and aspect of daily life. While the expansion of markets for digital inclusive insurance is related to the global transformations referred to in the literature as platform capitalism, it also depends on distinct digital technologies. Such issues are part of a burgeoning body of literature in critical IPE on digital financial inclusion used as an international development project (Maurer, 2015; Mader, 2016; Natile, 2020).

A considerable range of studies have examined the entanglement of microcredit services with digital technologies using big data analysis for credit scores. For instance, Loubere (2017) has focused on peer-to-peer loan platforms to show how they are part of a broader government surveillance project, while reproducing patterns of inequality and exploitation. Similarly, the literature on financialization in the context of development has provided a number of insights into how a new network of international actors draws on digitalized data collection as a key governing tool to monitor and discipline low-income individuals, as well as to profile them as new financial assets (Gabor and Brooks, 2017). In the same vein, big data predictive models for inclusive credit can exacerbate indebtedness instead of emancipating individuals (Langevin, 2019). According to Aitken (2017), the practice of alternative credit scoring to include unbanked people in the financial realm aims at encompassing financially excluded individuals in visible categories of knowledge and intervention from which financial value is extracted and bodies are made governable. By the same token, Bernards (2019) points out that the alternative data used for psychometrics in credit scores are aimed at providing calculable values likely to be exchanged and subject to speculation, but also facing broader limits to market expansion.

The aforementioned studies provide rich accounts of the governing dimensions upon which the extraction and valorization of individual data for digital inclusive financial products rest. They also emphasize platforms' disciplinary and exploitative character. However, they tend to ignore each other and to overlook the distinct racialized biases borne by the market expansion of inclusive insurance in the Global South. Regarding the first shortcoming, digital financial instruments have been conceptualized, for instance, as 'financial infrastructures' (Bernards and Campbell-Verduyn, 2019) or 'calculative infrastructure' (Aitken, 2017). Yet, the ability to exchange, collect and analyse individuals' data depends largely on the organizational form of service entities known as 'digital platforms'. With a few exceptions (Nuccio and Guerzoni, 2019; Rikap, 2020; Rikap and Lundvall, 2020) the key role of digital platforms in the coordination and analysis of large volumes of recorded data that shapes contemporary global capitalism is rarely acknowledged. Yet we suggest that digital financial inclusion and platform capitalism are two sides of the same coin.

Secondly, studies on platform firms operating in the Global South extensively scrutinized Super Platforms such as the GAFAM (Couldry and Mejias, 2018; Kwet, 2019; Rikap and Lundvall, 2020). Less attention has been given to the ways in which market expansion processes based on small digital platforms specifically target populations from the Global South. Further research is also needed to specify what platforms' intertwining of anthropomorphic and social reproduction (Fumagalli and Morini, 2020) really means for inclusive insurance markets' targeted populations and individuals. Such market expansion is likely to reproduce discriminatory and exclusionary patterns contradicting official claims regarding financial and insurantal inclusion. However, apart from Jin's conceptualization of 'platform imperialism', the literature presumes a natural trend of platforms growing steadily and evenly, or as Van Dijck states 'an innate interest of platforms in global market and worldwide reach of customers' (Dijck et al., 2018: 30). We thus suggest to further

draw from post/decolonial IPE scholarship to conceptualize the coloniality of market expansion through digital platforms. Inclusive insurance shapes financial access in targeting ‘subprime populations’ for development purposes (Roy, 2010; Kish and Leroy, 2015).

Research methods

Our analysis of the process of datanalsysing draws on a case study methodology (Yin, 2018). We assess inclusive motor insurance as ‘an aspect of historical happening’ (Bennett, 2004: 29) selected for the analysis of platform capitalism within the inclusive insurance sector. This method offers a post-positivist methodological position, coherent with our research object and theoretical framework, as it grounds knowledge in the co-constitution of international dynamics, structures and local realities (Lai and Roccu, 2019).

The choice made for studying the case of inclusive motor insurance is based on the following methodology. As inclusive insurance initiatives are nascent, it first required that we map and categorize the companies. For this purpose, we used CENFRI’s database called Insurtech Tracker⁴ to map the Insurtech landscape in developing and emerging economies. In addition, we closely followed the 2019 and 2020 International Conference on Inclusive Insurance and monitored events awarding initiatives such as the 2019 and 2020 Inclusive Fintech 50 powered by the Center for Financial Inclusion at Accion.⁵ We selected platform firms in the field of inclusive insurance based on three specific criteria: (i) having a digital infrastructure mediating the economic relationship between an insurance company and a final customer; (ii) collecting traditional and alternative data on customers (iii) applying predictive data analytics for risk assessment (iv) and aiming at achieving financial inclusion through insurance services. Thus, the inclusive insurance platforms studied operate in Latin America, Africa and South East Asia having thus a specific focus on the Global South.⁶

Our corpus is constituted of in-depth interviews and official documents – for example, such as industry reports. Inspired by previous studies conducted on platform-mediated labor (Doorn and Badger, 2020), this combination of sources helped us methodologically to develop a comprehensive picture of inclusive insurance platforms’ practices in pursuit of market expansion. Gaining access to platform practices in collecting alternative data happened to be quite challenging due to the confidentiality of certain information and the travel restrictions during the pandemic moment. International events and conferences, whether taking place online or physically, happened to be strategic places to meet inclusive insurance platforms chief executive officers and getting access to the field. Potential interviewees were contacted via LinkedIn, a professional social networking platform, which is very useful to qualitative research involving individuals difficult to find or to reach in person (Robinson, 2021). We established contact with the interested interviewees either after conference meetings or through snowballing. To further address access and privacy issue (Davies, 2001; Kezar, 2008), we triangulated two sources to corroborate, compare as well as discover points of tensions in our results (Warszawsky, 2014; Pottie-Sherman and Graham, 2021). Our analysis draws on 30 in-depth expert interviews with chief executive officers and chief technology officers of inclusive insurance platforms, and representatives of think-tanks, foundations and international development agencies promoting the digitalization of inclusive insurance. Interviews were conducted from November 2019 to November 2020. Due to the pandemic, most interviews were conducted via video communication which helped to establish trustworthy relations without sharing the same physical space and gain access to more interviewees in a short laps of time (Sedgwick and Spiers, 2009; Archibald et al., 2019). All interviews were anonymized for confidentiality. Interview data was combined with official documents and research reports of

development organizations engaged in the digital financial inclusion agenda (IIF, 2016; Insight2impact, 2016, 2017, 2018, 2019; Cenfri, 2017, 2018, 2019; CFI and IIF, 2017; IIF and CFI, 2018), as well as privacy policy documents and official statements from inclusive insurance companies in order to corroborate evidence. All documents were available online and published in a timeframe between 2016 – 2021.

The research material was coded with the Software Nvivo 12.0 to systematize the body of research, compare statements and eventually understand analytical patterns across documents (Richards, 2015). The coding step helped to depict a framework of categories (Suedfeld et al., 1992) in line with the market expansion process underpinning platforms. The unit of the analysis of the interview guidelines aimed at grasping the type of protocols used to exchange data, the type of data collected and the method of risk assessment based on data analytics. The coding process enabled us to triangulate interviews and texts as it summoned up the three practices of data exchange standardization, data collection and data appropriation.

Datanalysing: The coloniality of market expansion in platform capitalism

To address the shortcomings identified above, we suggest combining insights from the literature on platform capitalism with post/decolonial IPE approaches to study inclusive insurance platforms. This allows us to analyse the various colonial legacies on which platform capitalism relies, and which it reproduces, in the field of inclusive insurance.

Studies on platform capitalism offer an interesting account of the conditions of data production through platforms. Together with novel exploitative processes of labour, platforms use their ability to extract data to gain a monopolistic position and feed their appetite to collect more and more data (Srnicek, 2016; Isin and Ruppert, 2019; Sadowski, 2020). However, the principal feature supporting the expansion of markets is data analysis. The analysis leads to the interpretation of data, consequently revealing some sort of ‘relationships and truths about the world’ (Kitchin, 2014: 38; Thatcher, O’Sullivan and Mahmoudi, 2016). In the literature, data analysis has mainly been conceptualized as a process of datafication in the way platforms transform aspects of everyday life into tangible and quantifiable data (Amoore and Piotukh, 2015; Dijck et al., 2018). Hence, we draw on these studies to comprehend platforms’ abilities to expand markets by extracting and analysing data, to transform targeted populations into new financial revenues.

We combine these insights with those from post/decolonial IPE that shed light on the legacy of colonialism in structuring the global economy and expanding markets (Chakravarty and Silva, 2013; Tilley, 2016; Bhattacharyya, 2018; Bhambra, 2020). Scholars emphasize that, as a result of colonialism, ‘data politics’, that is, the collection and use of digital data, plays out differently in the Global South and in the north (Isin and Ruppert, 2019: 207). They reveal the continuity between techniques of government and modes of knowledge used during colonialism – such as the census, maps, museums and statistics – and today’s ‘data empire’ (Appadurai, 1993; Christopher, 2008; Isin and Ruppert, 2019; Touchelay, 2019). They highlight the continuous, yet transformed, practices of public and private institutions that use knowledge and data to count, categorize, order and rule populations.

Post/decolonial IPE scholars have developed tools to study the emergence and deepening of platform capitalism, highlighting how colonial legacies shape forms of differentiation of new patterns of value extraction (Casilli, 2017; Ricaurte, 2019). The concept of ‘data colonialism’ sheds light on the asymmetries of power undermining the capture of large volumes of individual data understood as a capital accumulation process by dispossession, commodifying previously

unmarketable aspects of life (Thatcher, O'Sullivan and Mahmoudi, 2016: 2). Hence, as the main economic model of data collection, platforms transform social life across the human globe into 'an open resource for extraction' (Couldry and Mejias, 2018: 2). Data colonialism involves a complex assemblage of experts, methods, technologies, data, practices and institutions that govern post-colonial people (Isin and Ruppert, 2019: 219).

The concept of data colonialism renders us attentive to the fact that data as 'resources' must be appropriated. These processes of appropriation are deeply colonial, drawing on 'racial social classification' (Quijano, 2007: 171). Race – defined as a mode of 'classifying, ordering, creating and destroying people, labor power, land, environment and capital' (Tilley and Shilliam, 2018: 537) – plays out as a catalyst for financial services to hierarchize populations and transform them into financial assets (Roy, 2010; Melamed, 2011; Chakravarty and Silva, 2012, 2013; Kish and Leroy, 2015; Bhattacharyya, 2018; Natile, 2020). We draw on this literature to focus on the coloniality of platforms: the attempt of platforms to expand the inclusive insurance market through drawing on and reproducing racialized differences based on hierarchical assumptions regarding the populations situated in the Global South.

A second important dimension of data colonialism is the way in which it reproduces and institutionalizes colonial forms of governing through 'ruling subjects for profit' (Couldry and Mejias, 2018: 1). Building on this insight, we add a conceptual dimension by focusing on a key mechanism of coloniality that is part of value extraction processes: subjects are turned into 'objects of knowledge' (Quijano, 2007: 174). Platforms' big data analysis is set as the mainstream way of knowing the world through data (Milan and Treré, 2019). Western-invented algorithmic decision-making is deployed as a technological measurement tool aimed at representing, knowing and treating insurance applicants from the Global South as its object. In substance, it creates an asymmetric relation by which non-Western people are objectified and, therefore, subjugated, as individuals lacking proper agency and requiring external help (Sabaratnam, 2011). It is crucial to analyse this process of objectification to grasp the way insurance customers are made 'visible or invisible' (Maldonado-Torres, 2007; Gruszka and Böhm, 2020) and rendered an entity of study from which knowledge is produced to optimize the extraction of financial returns.

In line with post/decolonial IPE, studies on algorithmic biases highlight the distorted promises and discriminatory outcomes of big data analysis (Boyd and Crawford, 2012; Couldry and Powell, 2014; Crawford and Schultz, 2014; Treré, 2016; Leurs and Shepherd, 2017). Scholars alert us to the hidden colonial assumptions upon which platforms, and their seemingly neutral and technical practices, are based (Noble and Tynes, 2016; Noble, 2018; Milan and Treré, 2019). Hence, the collection of certain data might conceal correlated pre-existing discriminatory practices (Tufekci, 2015). Thereby, racial biases in platforms' big data analysis are mainly implicit, unconscious and often rooted in the social thoughts, institutions and practices prior to, or embedded in, the creation of the system (Friedman and Nissenbaum, 1996; Turner Lee, 2018; Simon et al., 2020).

Integrating insights from studies on platform capitalism and post/decolonial IPE, we conceptualize the role and significance of data in the coloniality of market expansion through digital platforms as a process of 'datanalsing', which unfolds in three dimensions. First, platforms' technical infrastructure is legitimized by international standardization institutions. This institutional framework regulates and sustains the platform-based expansion of the inclusive insurance market. Secondly, platforms' data collection racially hierarchizes the targeted populations. Eventually, data is appropriated as a mean to transform lives of previously unmarketable individuals into a resource from which to extract value. The appropriation process involves the objectification of individuals, producing charts of int-eligibility and unint-eligibility as a simultaneous process of knowledge production and financial inclusion/exclusion. The coloniality of market expansion through

platforms epitomizes the reformulated colonial power relations in contemporary platform capitalism by means of appropriation, racial hierarchization and classification practices, not only to govern the targeted populations but also to extract value from previously untapped resources. We now analyse each dimension of ‘datanalsying’ in turn.

Data exchange standardization

Inclusive insurance companies are cloud-based platforms appropriating and analysing individuals’ data. One major feature of a digital platform is its necessity to safely⁷ connect and interact with other platforms, which is crucial for market expansion (Nuccio and Guerzoni, 2019). This section elucidates the ways in which data exchange standardization processes form the foundation of the inclusive insurance market, enabling it to expand via platforms, focusing on two dimensions: interoperability and security. These two dimensions refer to issues in the role standards play in market expansion (Graz, 2019).

Studies on digital platforms analyse the conditions and characteristics of interoperability, which guarantees a secure and open space on the web (Bodle, 2011). Hence, the rise of the Web 2.0 enabled web-based applications to be developed hinging on an interoperable technical architecture providing ‘connectivity, programmability and data exchange’ (Plantin and Punathambekar, 2019: 4). As for any insurance services, the expansion of markets for inclusive insurance relies on standardized formats of data exchange (Graz, 2019). One such aspect draws on devices and data interoperability. This practice depends on the implementation of *web-service-based application programming interfaces*, or APIs, which consist of a set of codes that define standardized formats of data exchange, including software and hardware (Dijck, 2013; Dijck et al., 2018). Basically, platforms’ access to each other’s data is governed by APIs. The API protocol is the one allowing, for instance, digital insurance platforms to pick up datasets of individuals’ transactional history from partnered e-wallet platforms. The companies interviewed claimed to rely on APIs in financial services, called ISO/TS 23029:2020, developed by an expert working group and edited by the technical committee ISO/TC 68/SC 9 to establish a norm on information exchange in financial services. In short, the standard defines a framework, the functions and protocols for systems to be able to have safe and synchronized interactions.⁸ Contrary to some social platforms using open APIs guaranteeing free access to the platform database, inclusive insurance platforms need to set up protected and private channels of communication. In order to be in a position to extract value from a large-scale standardized exchange of data, inclusive insurance companies respond to the risk of hacking and data breaches with security and encryption protocols. Among them, is another International Standard – ISO/IEC 20648:2016, which details the requirements for use of the Transport Layer Security (TLS) protocol in conjunction with data storage technologies.

Interoperability and security issues in the standardization of data exchanged by inclusive insurance companies unfold as follows. Many platforms establish partnerships with what are called ‘third-party companies’. E-commerce platforms, digital payment platforms, insurance and microinsurance companies or even basic merchants’ shops can be plugged into the platform ecosystem embedding the entire value chain. For example, a platform operating in West Africa offers insurance products to ride-hailing contractors. The company manages to gather financial historical data from the credit bureau authority that directly feeds their customer risk profile index. This means that each time a customer logs in and subscribes to an insurance policy, the company receives details of the individual’s current status of indebtedness and comes to know the frequency with which an individual honors their debt. This example shows the importance of APIs connecting platforms among different companies. Encrypted protocols allow only authorized entities to have access to personal

or even, in some cases, sensitive, data. This is yet more crucial when it comes to partnerships with digital payment platforms. When data are exchanged, a company can collect data on individual expenses, the type of spending, the frequency and the amount. Other instances illustrate how platforms set up an interoperable and safe system of data exchange inside their own framework. For example, if a company developed its own mobile application to which recipients can subscribe and on which they can enrol for a motor insurance policy, once the information is gathered, the data are immediately shared through an API with the company cloud system.

The collection, storage and transfer of data not only call for platforms to use standards of data security and exchange to create their market and support its expansion; this also shows how platforms need an interoperable multi-layered architecture to function (Bratton, 2015: 46). Since most platforms do not have direct access to customers, reliable channels of data circulation are crucial to trace and profile customer activities (Dijck et al., 2018). As Yates and Murphy (2019: 292) have pointed out, API protocols are essential parts of the infrastructure of the global economy, creating a reliable and familiar playground available for all actors involved in market relations on the web. Therefore, institutional agreements standardizing platforms' relations in the inclusive insurance industry act as a precondition to design the security attributes to ensure economic transactions (Loconto and Busch, 2010; Graz, 2019). In sum, the intervention of international standards in regulating platforms sheds light on how practices are reformulated by public/private standards setting bodies guaranteeing an interoperable and safe international technical infrastructure. This functions as the foundation on which platforms can collect individuals' data, to which we now turn.

Data collection

A core feature of digital platforms is their ability to harvest large amounts of data from a network of other platforms (Gerlitz and Helmond, 2013; Langlois and Elmer, 2013; Helmond, 2015; Kenney and Zysman, 2016). In this section we take the case of motor insurance policies to show how such data collection relies on 'datanalsying' practices characterized by a class- and race-based hierarchization of the target populations. We first analyse the colonial legacies which are embedded in traditional data collection. Secondly, we present how the use of alternative data strengthens these colonial practices. Directing the focus on the coloniality of platforms pushes us to contextualize and historicize the seemingly neutral variables and their broader implications in terms of market expansion and the creation of conditions of int-eligibility and unint-eligibility.

Inclusive insurance platforms collect four categories of alternative data to feed risk assessment methods for motor premium pricing: smartphones' metadata; GIS and data from other platform sources, such as transactional data or social network data. These datasets are added to so-called traditional information collected for the sale of motor insurance policies, usually combining demographic information with vehicle attributes. We find that collecting racialized data preceded the compilation of alternative data. For instance, inclusive insurance platforms draw correlations with the variable 'personal address'. The correlation logic implies that higher or lower premiums are charged according to ascribed (careless or attentive) behaviours of individuals living in the same geographical location. Yet the precise dimensions of the area are not specified. Correlations can be drawn on different scales, from a neighbourhood to an entire region. In Colombia, for instance, the residency variable is assessed on a regional scale. Thus, living in some regions might disadvantage some customers as historical data gathered by insurance companies show either highly fraudulent behaviour or a significant propensity to be involved in car accidents:

This is not written anywhere. But, certain areas of our country are not good for banking or insurance companies, because they are too risky. In some small towns there's a lot of fraud. And there is a bias against selling products in those areas. Some [insurance] companies don't like to sell products along the coast of the country. So, good people, good customers there cannot access the same products. Not even our products because we are not allowed to sell them. (Interview with a Colombian-based digital insurance platform chief technology officer, September 2020)

In this circumstance, the seemingly neutral variable 'personal address' hides and reproduces mechanisms of racial hierarchization. In Colombia, racialized differentiations were institutionalized during the Hispanic dominion in 1550 with the establishment of the Real Audiencia de Santafé, the royal appeals court of the Spanish Empire based in Bogotá (Olinto Rueda, 2012). The institution produced the first population census with the purpose of recording the number of 'Indian' residents on the Chibcha plateau (Olinto Rueda, 2013: 25). This categorization evolved throughout the decades, distinguishing populations according to their 'origin', meaning their skin color, along with their geographical location (Orrego, 2016). From the above statement, we perceive a colonial continuity in the way racial hierarchization is associated with regional identifications. In Colombia, the social construction of racial categories is historically anchored in geographical spaces (Leal, 2010; Agudelo, 2013). Colombia has a strong concentration and division of so-called ethnic groups into specific geographical parts largely reflecting the colonial configuration of the ethnic space (Blutstein and Edwards, 1983). Cities and towns along the coast are mainly inhabited by people characterized as 'black and mulattos' (Hudson, 2010). Descendants of slaves, exploited by the Spanish empire to mine gold on the Pacific coast in the 16th century, were later forced to remain there in precarious conditions as the possibilities of integrating into the post-colonial society were very restricted (Wade, 1985; Acemoglu et al., 2012).

Independent of the potential of 'personalizing' an insurance policy through alternative data, discriminatory patterns are inherited from previous discriminatory sets of data. Therefore, the appropriation of geospatial information by inclusive insurance platforms racially hierarchizes and excludes an entire population group *a priori*. This racial differentiation is based on a hierarchical assumption that residents living in specific regions, which are mostly inhabited by Afro-Colombians, are unreliable, fraudulent and unsuitable for insurance coverage. Integrating the variable 'personal address' in the risk assessment model *de facto* reproduces a racialized segregation of space and colonial stereotypes regarding unguarded and dishonest behaviours of targeted populations.

If we now turn to the collection of alternative data, the main unconventional data gathered for motor insurance are GIS data.⁹ GIS data consist of the geographical location and the description of the geographical location (Insight2impact, 2018: 4). These provide instantaneous information on driver attitudes, respectively acceleration and brake frequency, distance covered, time and part of the day spent driving, as well as roads taken. These data are collected either through a specific application or through smartphone sensors. Thus, high frequency patterns of acceleration, high numbers of kilometers driven, as well as frequent driving on unmaintained roads, are assumed to increase the propensity of risk and, therefore, raise the premium price. Yet, GIS might also reproduce racialized hierarchization patterns inherited from the colonial era. In Kenya and, more precisely, in Nairobi, inclusive insurance platforms are highly engaged in insuring motor taxi drivers or independent contractors working with ride-hailing platforms. Using instant GIS data produces patterns of int-eligibility and unint-eligibility, either because the policy price appears to be too expensive or simply because the platform risk assessment model rejects the customer as being uncoverable. Hence, ride-hailers face contradictory scores, from which their risk propensity might

increase, instead of decrease. For instance, knowing the daily distance covered by a car might not accommodate these workers. Street access to buildings in poor neighbourhoods is not guaranteed, hence requiring long drives to reach a precise destination.¹⁰ In addition, poor neighbourhoods, with bad road conditions and street access, might constitute discriminatory variables:

[...] Some roads in Nairobi are riskier than others. Places such as Kibera or Eastlands are not as developed as other areas like Kilimania or Kililecia. And you'll find that in a particular area, there's probably more people on the roads. So, the data scientists and the technical team came up with some kind of risk scoring, such that areas that are more congested would have a higher risk score compared to other well-developed areas that don't even have mini motorcycles driving on that route. (Interview with a Kenyan-based digital insurance platform chief executive officer, October 2020)

Following this logic, individuals who live in poor neighbourhoods driving every day on cratered roads are construed as riskier customers. This is not only a class-based mechanism of differentiation. It also reproduces the racialized residential segregation of Nairobi, established during colonization. During the British dominion in the early 20th century, the colonial government implemented a human stratification process along racial lines and income status (K'Akumu and Olima, 2007). Colonial imperatives to control the population included the development and implementation of public health standards among the various ethnic groups. This policy was based on the prejudice claiming that locals were carriers of infectious diseases due to insalubrious living conditions; therefore, ethnic segregation would ease and prevent any spread (Stren, 1978; Greenwood and Topiwala, 2020). It resulted in a tri-partition of Nairobi as the colonizing Europeans settled on the northern and western part of the city, people labelled as 'Asians' were placed in the northern east side and the population labelled 'African' was condemned to live in the highly densified southern part. This contributed to the emergence of informal settlements such as the Kibera slum (Salau, 1988). Today, Kibera hosts approximately 1 million individuals and is considered one of the largest and poorest neighbourhoods on the African continent (Mukeku, 2018).

To sum up, inclusive insurance platforms collect data in such a way that they include a class- and race-based hierarchization of the targeted populations. The merging of traditional with alternative data collection entails exclusionary patterns that stand in clear contradiction with development agencies' discourse on the benefits of alternative data assessment to increase financial inclusion. The practice depicts colonial continuity in its quest to categorize individuals in the Global South, which here regards inclusive insurance' market expansion imperative in transforming populations into profitable resources.

Data appropriation

Platforms cannot be dissociated from their analytical tools (Kenney and Zysman, 2016; Srnicek, 2016). Indeed, the inherent ability of platforms to analyse data is central to their modalities to push the market beyond its presumed capacity. In this section we emphasize the appropriation process by which targeted populations are objectified in numerical and categorical terms to be tapped as financial resources. The knowledge produced in 'personalizing' the premium price determines the conditions of int-eligibility or unint-eligibility individuals face.

Predictive analytics consist of the extension of probability statistics to offer forecasting capabilities with extensive amounts of data (Bramer, 2020; Olson and Wu, 2020). In insurance, the trained algorithm aims at identifying good and bad risk, as well as the likelihood of insured perils (McGurk, 2019). The main difference with probabilistic statistics is the analysis of current, as well

as historical, facts (Nuccio and Guerzoni, 2019). This model can be used in many fields, from fraud detection to marketing (Wilson, 2017). Inclusive insurance platforms use predictive analytical models for risk assessment as a way to ‘personalize’ premium pricing. We identify two types of predictive models used to determine a customer’s risk propensity: the classification model works through categorizing information, such as defining and distinguishing a ‘good’ from a ‘bad’ driver; and the forecast model generates a numerical outcome on a specific risk. For instance, a Colombian inclusive insurance platform provides predictive analysis to offer discounts on a motor insurance premium. The platform claims to reward customers for good driving skills, whereas, in fact, the model is set up to predict the likelihood of a person having a car accident:

[...] in total, it’s about 20 or 30 variables that we collect, and we cross-reference them with data on car accidents. And we apply a cluster that basically separates or splits people into categories, like people who are likely to crash and people who are not likely to crash. Each driver that receives a quote for insurance on our website is assigned a score to belong to one of those sets of clusters. [...] (Interview with a Colombian-based digital insurance platform chief technology officer, September 2020)

Hence, the process of objectification is epitomized here as a numerical classification. The classification chart that analyses the chosen database, rather than ‘personalizing’ the premium price of the policy holder as claimed by the platform, generates a score between 0 and 1 where 0.6 is the threshold to be identified as a ‘good driver’. In short, below the 0.6 arbitrary threshold, the driver will have to pay the full fee, whereas if the score is above the index, the premium fee will be reduced. It splits policy holders into two categories, namely, ‘good’ and ‘bad’ drivers, rather than customizing the insurance premium.

Apart from the disciplinary aspect incentivizing, complying and adapting their driving behaviour accordingly, this procedure reproduces a broader colonial practice of classifying targeted populations (Cohn, 1984; Dirks, 1987). This process generates knowledge through platforms, enabling the objectification, comparison and classification of the targeted populations, a practice strongly related to the colonial bureaucratic power of censusing and mapping colonized populations (Appadurai, 1993). The mechanism of classification, in fact, produces a numerical outcome by which individuals can easily be compared and understood. The knowledge generated is of crucial importance to determine the eligibility or ineligibility of a recipient as a future resource for financial value extraction.

Similarly, the forecast model draws on colonial governance instruments. This model is adopted by an inclusive insurance platform based in Kenya to predict the comprehensive coverage of motor insurance in case of an accident. The platform claims to provide a more accurate risk assessment method than insurance companies. Yet, instead, it objectifies their driving behaviour in numerical terms, thus transforming social activities of the targeted populations into tangible objects (Appadurai, 1993). Through a downloadable application, the inclusive insurance platform is able to include in its forecast model, among others, demographic data, as well as GIS data with supposed driving characteristics. The platform aims at providing a personalized price based on the customer’s driving ability:

We thought that it’s not fair to charge everyone the same 5% because some people are better drivers than others. So now our regression model comes up with this percentage. (Interview with a Kenyan-based digital insurance platform chief executive officer, October 2020)

The chief executive officer explains that insurance companies used to charge the parties a fee of 5% of the vehicle's residual value in case of an accident. The amount to be paid was then multiplied by the coverage benefit. Hence, the platform suggested applying a variable fee percentage according to a set of criteria distinguishing good from bad drivers. Hence, the numerical predictive model processes all those data in order to produce a score based on a variable, or a 'personalized' fee percentage, according to a driver's behaviour.

This process illustrates the technique of objectification as all the data gathered from an individual's life are reinterpreted on a numerical scale. Predictive analytics has the capacity to transform a supposedly unreliable customer into a tangible and priceable financial resource (McFall and Moor, 2018). The individual is profiled, and attributed a certain easily understandable numerical score, priced in monetary terms (Kear, 2017). Thus, the individual is transformed into a financial asset ready to be traded (Callon, 2017; Fourcade and Healy, 2017). The final output of predictive analytics is the conception of a monetary quantifiable price related to a driver's propensity to crash.

Hence, the scrutiny of data appropriation sheds light on platforms' conditions of data production. Risk assessment tools are key for inclusive insurance platforms as they represent their main source of profit to increase sales and commissions. However, this process illustrates a current phase of accumulation identified with the exploitation of life itself (Fumagalli et al., 2019). The recipient is largely unaware of the creation of alternative data which produces information on the individual's social relations, interactions and practices on a real-time basis (Terranova, 2000). Hence, social life as a whole appears to be the main resource on which capital can monetize future revenues (Morini and Fumagalli, 2010), in this case financial revenues. Hence, the life of targeted populations is transformed into data that serve as resources that can be discovered, collected and appropriated by inclusive insurance platforms. Thus, current forms of capitalism are adapting to platform design and practice, yet still maintaining essential features of colonial days (Couldry and Mejias, 2018, 2019). In the context of inclusive insurance platforms, this works in racially hierarchized ways, reproducing relations of coloniality.

In summary, inclusive insurance platforms shape the conditions of inclusion/exclusion in the economic and financial systems, appropriate the value of life as a new resource from the data obtained from the individuals in the Global South, and extract future revenues from the sale of financial products. Thus, these platforms facilitate accumulation processes based on the colonial and racial imperative of objectifying subjugated populations in an attempt to appropriate their lives as a resource to generate future revenues. Our analysis reveals the contradictions of the global inclusive insurance agenda and its discriminatory and exploitative character.

Conclusion

This article has drawn on debates regarding the rise of platform capitalism and the financial inclusion agenda to shed light on the use of digital platforms in the Global South. We have used the case of motor inclusive insurance to show how the market expansion sought by platforms relies on three dimensions of what we term datanalysing: data exchange standardization; collection; and appropriation. Our findings describe the standardized devices for interoperable and secure economic transactions; the appropriable tools to objectify, classify and racially hierarchize recipients; as well as the calculable tools of knowledge production turning individuals and populations into objects of knowledge from which future financial value can be extracted.

Our analysis also situates the incorporation of the current expansion of platform capitalism into the continuity of colonial practices of classification and knowledge production, as well as racialized hierarchization regarding the targeted populations. We reveal that these platforms create conditions

of int-eligibility and unint-eligibility as a simultaneous process of exploring and studying individuals in the Global South in order to include them in, or exclude them from, the financial system and shape the conditions of inclusion. Platform-based market expansion in this context is embedded in inherited patterns of material appropriation and stereotypes guiding colonial logics in the contemporary global economy (Quijano 2000; Mantz 2019; Grosfoguel 2007; Tucker 2018). Ultimately, our case study informs the research agenda on platform capitalism with the contextual circumstances and implications of small platform business models when deployed beyond core capitalist economies and implemented as solutions advertised as alleviating financial distress and promoting development. Further research would be critical to assess the ways in which targeted populations experience, deal with, and potentially resist platforms practices to focus on the agency and room of manoeuvre individuals have when dealing with inclusive insurance platforms.

Eventually, our findings also suggest that policymakers pay attention to the historical roots and the structural consequences of the adoption of inclusive insurance platforms in providing financial services for development purposes. In the context of the current pandemic, proponents of platforms for the inclusive insurance market are pushing for further adaptation in the sector. Yet, Covid-19 also had a strong impact on our social habits. Further research might focus on how the pandemic is affecting the appropriation process of real-time data at a time when social interactions and practices have been reduced and transformed by measures of social distancing and lockdowns. This might reveal further inconsistencies related to the limitations of platforms as a model promising financial emancipation and empowerment.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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Notes

1. We would like to thank Stefano Guzzini, Jonas Hagmann, Oliver Kessler, Zeynep Gulsah Capan, Sylvain Maechler, Rebea Berfelde and Madeleine Böhm for providing helpful comments on earlier versions of this article. We also thank Joanne Deller for her great proofreading work.
2. Insight2Impact, 'Digital platforms' role in African digitization and gig work on the back of COVID-19'. Published on the 21st of April 2020. [URL: <https://cenfri.org/articles/digital-platforms-role-in-african-digitisation-and-gig-work-on-the-back-of-covid-19/>].
3. We are using this terminology but are aware of its colonial connotation.
4. CENFRI Insurtech tracker official website, [URL: <https://cenfri.org/databases/insurtech-tracker/>]. Accessed 8 December 2021. The terminology 'Fin/Insurtech' is used by the industry to refer to the enmeshment of digital technologies with the provision of financial/insurance services. We clarify this distinction below at p. 9.
5. Inclusive Fintech 50 official website, [URL: <https://www.inclusivefintech50.com/>]. Accessed the 8 December 2021.

6. Due to anonymity requirements, we cannot provide further detail regarding the location of platforms.
7. Here, 'safe' designates a robust and crypted software system able to resist hacking attacks aimed at stealing data sources.
8. ISO/TS 23029:2020 (2020) Web-service-based application programming interface (WAPI) in financial services.
9. Insight2Impact, Project website published the 13th of June 2018. [URL: http://access.i2ifacility.org/Alternative_data_sources/]. Accessed the 28th of April 2021.
10. Here, we take the example of Nairobi and the lack of street access for cars in the slum of Kibera. [URL: <https://millionneighborhoods.org/#16.5/-1.284919/36.825969/-8.9/39>]. Accessed on the 28th of April 2021.

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