Data Sovereignty
a Zimbabwean Perspective

#WebSci20
July 6th - July July 10th

dr ing Gertjan van Stam
Masvingo, Zimbabwe

WebSci'20 Workshop on Digital (In)Equality,
Digital Inclusion, Digital Humanism
7 July 2020

Data Sovereignty: A Perspective From Zimbabwe

Munyaradzi Mawere
Great Zimbabwe University, Masvingo, Zimbabwe
munyaradzimawerem@gmail.com

Gertjan van Stam
Masvingo, Zimbabwe
gertjan@vanstam.net

ABSTRACT

This paper applies a trans-disciplinary analysis on the issue of data sovereignty, from an African perspective. The paper interrogates the residence of data and the African prerogatives for its processing. Harvesting from experiences in Zimbabwean health systems, this paper suggests that African governments can steward the collection and appropriate use of data resources, applying the principles of data sovereignty.

CCS CONCEPTS

• **Information Systems**; • **World Wide Web**; • **Web Applications**; • **Social Networks**; • **Social and Professional Topics**; • **User Characteristics**; **Computing / Technology Policy**; • **Applied Computing**; • **Human-Centered Computing**;

KEYWORDS

sovereignty, data, platforms, Africa

ACM Reference Format:
Munyaradzi Mawere and Gertjan van Stam. 2020. Data Sovereignty: A Perspective From Zimbabwe. In *12th ACM Conference on Web Science (WebSci '20 Companion), July 6–10, 2020, Southampton, United Kingdom.* ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3394332.3402823

1 INTRODUCTION

In African contexts, issues of sovereignty – whether social, political technological or otherwise – are pregnant and contested concepts, subject of ongoing discussions. The foundations of the systems of the nation-state and the articulation of concepts of national sovereignty are a result of non-African histories. The Westphalia accords came to pass without African involvement in the towns of Münster and Osnabrück in 1648. These accords set the foundations for the demarcation of autonomous states in Africa. Colonial, bilateral and multilateral agreements established the state boundaries, drawn up outside of Africa, without any African consent or representation. The social and political realities in Europe resulted in the demarcations that exist in Africa, up to the present time. They were solidified in the General Act of the Berlin Conference, in 1884–85. This confirmation of the arbitrary borders authorised Europe's Scramble for Africa. Founding nationalists in Africa imported the resulting bondages through the principles of the Organisation of African Unity (OAU) – the precursor of the African Union – that emphasised the inviolability of colonially-inherited African borders.

Sovereignty in the African contexts is a two-pronged enterprise, existing both in the context of the nation-state and as existing in so-called traditional systems, guided by narratives of identity and culture. The guardians of the nation-state are the national governments in Africa. Their powers are often vested in a democratically elected President. In the so-called traditional structures, authoritative guardianship resides in the Chieftainship.

In this paper, we focus on the state as a core unit for regulatory powers. Nevertheless, with Olayode Kehinde Olusola [32], we concur that this unit of analysis remains inadequate to address the full scale of multiple realities existing in contemporary African politics. In this paper, we choose to limit the interrogation to the perspectives from a nation-state because information and communications technologies seem exclusively and narrowly conceptualised to exist in the legal frameworks set in nation-states and omits any reference to customary laws.

There is a clear void for critical literature on the storage, African agencies in the harbouring and processing of digital data, the use of data from Africa, and the growing exploits of data platforms outside of Africa. Datafication in the Global South, Linnet Taylor and Dennis Broeders [43] show, are resources to an avaricious informational capitalism that fuels new power structures propelling "digital representations of social phenomena and/or territories that are created in parallel with, and sometimes in lieu of, national data and statistics." (page 229). In this paper, we approach the subject matter by interrogating the consequences of the *positionality* (location) of information. Also, we assess what is *at stake* in the handling of digitised information while reflecting on the issues of sovereign choice and agency in Zimbabwe. Underlying questions are "who benefits in contemporary platforms?" and "who's interests are technologies, data, and platforms serving"?

We conceive 'data' as things known or assumed as facts that are the basis of reasoning or calculation, and, therefore, subject to philosophy and contextuality. The framings of the constitution of quantities, characters, or symbols in the fields of calculation and computing, invariably negate philosophies, ontologies, and epistemologies from Africa [39]. Definitions appear set in a normative epistemology that assesses the benefits of an action by its essentialised results. Such an epistemology is foreign to most African communities. It omits the dynamic and integral nature of African epistemologies [3] and the relational qualities of 'things' [24]. Data sovereignty refers to the self-determination of individuals and organisations – and, we argue, countries and communities – concerning the use of their data [13].

It is from our African positions, set in a complex context of competing philosophies and practices affecting sovereignty and

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.
WebSci '20 Companion, July 6–10, 2020, Southampton, United Kingdom
© 2020 Copyright held by the owner/author(s). Publication rights licensed to ACM.
ACM ISBN 978-1-4503-7994-6/20/07…$15.00
https://doi.org/10.1145/3394332.3402823

Short introduction

- Gertjan van Stam (PhD-culture, MTech-ICT, BSc-Telecoms engineer)
  - Living and working in sub Sahara Africa since 1987, full time since 2000
  - Research focus on the intersection of technology and culture
  - Community deposits @ http://www.vanstam.net/gertjan-van-stam
- Munyaradzi Mawere (PhD-social anthropology, Masters in social anthropology, philosophy, and development studies)
  - Professor @ Simon Muzenda School of Arts, Culture and Heritage Studies, Great Zimbabwe University
- Presentation to give a glimpse on context and content
- Invitation to read and contemplate the application of the paper

Method

- Decolonial research paradigm
  - Focus on communities, according to local/national needs
  - Long term commitment, set in ethics, equity and complementarity
- Living Research method
  1. Request from local authorities (national, provincial, local and traditional)
  2. Introduction of research by local authorities
  3. Co-developed with local communities and all stakeholders
  4. Monitored by, and looping in with, local communities
  5. Reporting of progress to local communities and national governance
  6. All discussions and write-ups done from within the community
  7. Presentations done under local guidance

Data

- Definition: “Known or assumed facts used for reasoning and calculation”
- Computation prioritises quantities, characters, and symbols
- Subject to philosophy and contextuality
- Defined and categorised normatively, outside of Africa
- Omits dynamic and integral nature of most African epistemologies
- Quantifications fuel existing power structures

Sovereignty

Deputy Director Information Communication Technology, MoHCC, 25 May '20

- Contested fields, location and identities
- Demarcations set in non-African histories, without African consent
  - Westphalia Accord (1648)
  - General Act of Berlin Conference (1885)
- Colonial frames imported through Organisation of African Unity
- Multiple realities and ways of knowing exist
  - Legal frameworks set within the notion of the nation-state
  - Omission of customary laws
  - Negates social justices, e.g. fluidities

Digital Platforms

how developing countries may be affected by this (r)evolution in terms of the creation and capture of value, and what should be done to improve the status quo.

The economic geography of the digital economy does not display a traditional North-South divide. It is consistently being led by one developed and one developing country: the United States and China. For example, these two countries account for 75 per cent of all patents related to blockchain technologies, 50 per cent of global spending on IoT, and more than 75 per cent of the world market for public cloud computing. And, perhaps most strikingly, they account for 90 per cent of the market capitalization value of the world's 70 largest digital platforms. Europe's share is 4 per cent and Africa and Latin America's together is only 1 per cent. Seven "super platforms" – Microsoft, followed by Apple, Amazon, Google, Facebook, Tencent and Alibaba – account for two thirds of the total market value. Thus, in many digital technological developments, the rest of the world, and especially Africa and Latin America, are trailing considerably far behind the United States and China. Some of the current trade frictions reflect the quest for global dominance in frontier technology areas.

xvi

UNCTAD. (2019). Digital economy report 2019: Value creation and capture - implications for developing countries. New York: United Nations.

WebSci'20

Data Power-Dynamics

- Dominant narratives tell that data, data-processing, and technology are a-political and a-historical, however
  - composition/handling of data set in ideologies, politics & measures of success
  - production and computing contingent on choices of inclusion and exclusion
  - data-handling framed by foreign designs
- Many (Bay Area) designers blind to ‘other’ forms of identity
- Alignment with neo-liberal ideas on wealth creation
  - private market competition
  - capricious capitalism

Observations from an African place

- Foreign ontological and political shaping of the digital world disempowers African meaning making and sovereignty
- Foreign processing of African data creates parallel representations
- Dominant digital platforms operate outside of African oversight
- Outsourcing African data allowed for scandals as Cambridge Analytica
- Algorithms appear to be biased to Euromerican realities
- Threats of wholesome surveillance
- Outcomes provide little – if any - *knowing* in African communities

Some quotes from the paper

- “The data extraction by commercial, opaque transnational companies and non-accountable non-African institutions from African environments seems to be threatening sovereignties in the African continent.”
- “capturing [of data] is negotiated, executed and monitored for contractual and legal compliance that is based upon norms and values mostly foreign to many African communities. US-centric standards, corporate responsibilities, the primacy of ‘markets’, and, most significantly, an unapologetic profit-motive govern the modelling of leading, contemporary digital platforms.”

Subordinating Africa

- Dominant platforms gatekeep digital worlds
- Extraction of African data no feature on international agendas
- African security interests subjugated to transnational capitalism
- Africa-failing narrative sustains coloniality
- Unabating extraction of African data for research in the West
- Metaphysical and epistemological discordances
- Imported technologies ignorant of African realities
- Oblivious of ‘black holes’ in the information society

African arguments

- African social values and moral philosophies (like ubuntu/unhu)
  - unaligned with people being approached as individuals
  - stands against capitalistic philosophy of competition
- No legitimacy for Western domination
- Dominant digital platforms import foreign administrative ideologies and super-colonial structures
- Algorithms can disrupt when deployed in ‘other’ contextual, cultural, moral, or epistemological settings

Policy guidance

- Arrest dependence on foreign digital platforms and their data-processing
- Subject data-processing algorithms to scrutiny and public oversight
- Decide on what data to harvest and how to keep data in country
- Certify algorithms that serve public functions, e.g. in health
- Establish international laws securing national data-sovereignty, irrespective of data location

Conclusions

- Dominant digital platforms harvest and extract African information unscrupulously
- There is little regards to African sovereignties
- Current practices of data mining and extraction compels critical questions and assessment regarding data-sovereignty

Tatenda, Siyabonga

(Thank you)

#WebSci20

July 6th - July 10th

dr ing Gertjan van Stam

Masvingo, Zimbabwe

WebSci'20 Workshop on Digital (In)Equality, Digital Inclusion, Digital Humanism

7 July 2020

Data Sovereignty: A Perspective From Zimbabwe

Munyaradzi Mawere
Great Zimbabwe University, Masvingo, Zimbabwe
munyaradzimawerem@gmail.com

Gertjan van Stam
Masvingo, Zimbabwe
gertjan@vanstam.net

ABSTRACT

This paper applies a trans-disciplinary analysis on the issue of data sovereignty, from an African perspective. The paper interrogates the residence of data and the African prerogatives for its processing. Harvesting from experiences in Zimbabwean health systems, this paper suggests that African governments can steward the collection and appropriate use of data resources, applying the principles of data sovereignty.

CCS CONCEPTS

• **Information Systems**; • **World Wide Web**; • **Web Applications**; • **Social Networks**; • **Social and Professional Topics**; • **User Characteristics**; **Computing / Technology Policy**; • **Applied Computing**; • **Human-Centered Computing**;

KEYWORDS

sovereignty, data, platforms, Africa

ACM Reference Format:

Munyaradzi Mawere and Gertjan van Stam. 2020. Data Sovereignty: A Perspective From Zimbabwe. In *12th ACM Conference on Web Science (WebSci '20 Companion), July 6–10, 2020, Southampton, United Kingdom.* ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3394332.3402823

1 INTRODUCTION

In African contexts, issues of sovereignty – whether social, political technological or otherwise – are pregnant and contested concepts, subject of ongoing discussions. The foundations of the systems of the nation-state and the articulation of concepts of national sovereignty are a result of non-African histories. The Westphalia accords came to pass without African involvement in the towns of Münster and Osnabrück in 1648. These accords set the foundations for the demarcation of autonomous states in Africa. Colonial, bilateral and multilateral agreements established the state boundaries, drawn up outside of Africa, without any African consent or representation. The social and political realities in Europe resulted in the demarcations that exist in Africa, up to the present time. They were solidified in the General Act of the Berlin Conference, in 1884–85. This confirmation of the arbitrary borders authorised Europe's Scramble for Africa. Founding nationalists in Africa imported the resulting bondages through the principles of the Organisation of African Unity (OAU) – the precursor of the African Union – that emphasised the inviolability of colonially-inherited African borders.

Sovereignty in the African contexts is a two-pronged enterprise, existing both in the context of the nation-state and as existing in so-called traditional systems, guided by narratives of identity and culture. The guardians of the nation-state are the national governments in Africa. Their powers are often vested in a democratically elected President. In the so-called traditional structures, authoritative guardianship resides in the Chieftainship.

In this paper, we focus on the state as a core unit for regulatory powers. Nevertheless, with Olayode Kehinde Olusola [32], we concur that this unit of analysis remains inadequate to address the full scale of multiple realities existing in contemporary African politics. In this paper, we choose to limit the interrogation to the perspectives from a nation-state because information and communications technologies seem exclusively and narrowly conceptualised to exist in the legal frameworks set in nation-states and omits any reference to customary laws.

There is a clear void for critical literature on the storage, African agencies in the harbouring and processing of digital data, the use of data from Africa, and the growing exploits of data platforms outside of Africa. Datafication in the Global South, Linnet Taylor and Dennis Broeders [43] show, are resources to an avaricious informational capitalism that fuels new power structures propelling "digital representations of social phenomena and/or territories that are created in parallel with, and sometimes in lieu of, national data and statistics." (page 229). In this paper, we approach the subject matter by interrogating the consequences of the *positionality* (location) of information. Also, we assess what is *at stake* in the handling of digitised information while reflecting on the issues of sovereign choice and agency in Zimbabwe. Underlying questions are "who benefits in contemporary platforms?" and "who's interests are technologies, data, and platforms serving"?

We conceive 'data' as things known or assumed as facts that are the basis of reasoning or calculation, and, therefore, subject to philosophy and contextuality. The framings of the constitution of quantities, characters, or symbols in the fields of calculation and computing, invariably negate philosophies, ontologies, and epistemologies from Africa [39]. Definitions appear set in a normative epistemology that assesses the benefits of an action by its essentialised results. Such an epistemology is foreign to most African communities. It omits the dynamic and integral nature of African epistemologies [3] and the relational qualities of 'things' [24]. Data sovereignty refers to the self-determination of individuals and organisations – and, we argue, countries and communities – concerning the use of their data [13].

It is from our African positions, set in a complex context of competing philosophies and practices affecting sovereignty and

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.
WebSci '20 Companion, July 6–10, 2020, Southampton, United Kingdom
© 2020 Copyright held by the owner/author(s). Publication rights licensed to ACM.
ACM ISBN 978-1-4503-7994-6/20/07…$15.00
https://doi.org/10.1145/3394332.3402823