This is For Everyone? Steps towards decolonizing the Web

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ABSTRACT

From the outset, the Web has been steered by powerful commitments to 'openness': in its technical requirements - open standards, protocols; and in the promotion of free and open information exchange. The mutual co-construction of conceptualisations of the Web as both an embodiment and facilitator of 'openness' is not without its problems, however. In this brief (deliberately provocative) discussion we explore ways in which treating openness as a 'universal good' ignores (and marginalises) diversity in cultural practice and obscures the structures of power and control embedded in the processes of the cultural appropriation of knowledge. In this way, questioning the Web's 'openness' is a mechanism by which to explore the digital divide, the inherent politics of the Web as a socio-technical infrastructure and the historical processes that have led to its continued development.

Categories and Subject Descriptors

H.1.1 [**Systems and Information Theory**]: Information Theory

General Terms

Theory

Keywords

digital divide, openness, knowledge exchange, open data, power, inequality, Indigenous data

1. INTRODUCTION

The technical architecture of the World Wide Web aims to support the free and open exchange of information online. Born as a distributed mechanism for communication and collaboration between high energy physicists at CERN, the Web has evolved into a global information infrastructure now embedded in the daily lives of its 2.9bn[1] users. From the outset, the Web has been steered by powerful commitments to 'openness': in its technical requirements - open standards, protocols and decentralised networks; and in the promotion of free and open information exchange. As such, the Web presents a radical alternative to more familiar regimes of data and infrastructure ownership, demanding innovative business models and new forms of governance to secure its future 'for everyone'.[2] The struggle to achieve this should not be under-estimated; and the openness of the Web should not be taken for granted, but recognised as contingent and hard-won. However, nor should we assume that the Web is - in fact - for everyone. Indeed, attention to an emergent 'digital divide' has emphasised inequalities in access to the hardware that enables Web access and, more recently, to inequalities in the skills required to derive value from Web access [6, 15, 16]. In both cases, the Web is conceptualised as a source of information and the problem defined in terms of unequal benefit from Web-based information. In this paper we aim to extend this notion of the 'digital divide', making a more fundamental claim about the power relationships embedded in the socio-technical infrastructure of the Web. It is not simply that there are inequalities in terms of access to and value derived from the Web, but that the socio-technical nature of the Web itself raises questions of difference, power and inequality. Specifically, our argument is that however alternative the organisation, funding and governance of the Web may be to mainstream modern economic and political systems, it remains grounded in particular conceptualisations of information exchange, ownership and progress that are tied to a Western scientific rationality.

2. DECONSTRUCTING OPENNESS

We can work our argument through some further consideration of the 'openness' that continues to be central to representations of the Web. Whilst it is clear that the free availability, open standards and decentralised structure of the Web have been central to its phenomenal growth [7], it would be a mistake to accept as a self-evident truth that openness is a universal good. Let us take Open Government Data as an example. Recent years have seen significant growth in the number of governments committing to the online publication of data, freely available for scrutiny

[1]The estimated total number of Internet users as of July 2014, retrieved from Internet Live Stats: `http://www.internetlivestats.com/internet-users/#trend` [Accessed 18 May 2015]

[2]Tim Berners-Lee on the importance of 'universality': `http://www.theguardian.com/technology/2013/dec/03/tim-berners-lee-spies-cracking-encryption-web-snowden` [Accessed 26 April 2015]

and re-use [14]. Widespread claims have been made that this will support both economic growth and participatory citizenship, and yet emergent criticisms echo established arguments about digital divides: specifically, questioning who has access to these data; and who has the skill, time and influence to make effective use of them [3, 14]. Furthermore, it is suggested that the current focus on open technical standards may eclipse longer-standing and more radical campaigns for democratic openness [24]. These are all important and valid points. But the issues extend further than this.

First, Science and Technology Studies and specifically the information infrastructure literature insist that we consider the epistemological underpinnings of data, their construction and representation (e.g. the categorisations, metadata schemas, etc.), as well as choices over which data are or are not released. A particularly powerful example here are ethical concerns over colonialist representations within census data collected about Indigenous peoples.[3] Previous research points to the inherently political nature of this type of information, both in terms of data structures and in the historically minimal involvement of Indigenous peoples themselves in the collection, maintenance and use cases for such data of which they are the subject [22]. Whilst there has been a regular critique of the data practices which surround the curation of Indigenous census data [1, 13, 19, 23], there has been little engagement with the potential ramifications for the release of these data as open data. Open Government Data repositories deserve further reflection - to question their provisions for transparency and accountability but also to recognise the underlying power structures which facilitate their release and use. In what ways does the technical process of 'making data open' (or labelling it as such) - mask or obscure the highly contextual and subjective nature of 'Indigenous data' and potentially reify contested conceptualisations of 'Indigeneity'; and how does it shape the types of questions that may be asked and ultimately how this information is interpreted and re-presented?

Second, drawing more heavily on postcolonial literature, and specifically its application in heritage management, we want to raise concerns about the cultural appropriation of knowledge in the interests of 'openness' and the presence of incompatible conceptualisations of information and knowledge exchange. In other contexts, universal notions of 'the commons' and 'the public domain' have been questioned particularly with regards to the mechanisms by which the access and use of tangible and intangible cultural heritage of Indigenous communities are determined [8, 9, 10, 11, 18, 17]. Contrary to western philosophical notions of the public domain and intellectual property, circulation and access to information are culturally situated and in certain communities are defined by group membership, decided by 'one's age, gender, ritual status, family and place-based relationships' [10]. In light of this, there is a growing body of evidence that Indigenous communities are building their own locally designed and controlled mechanisms for managing network connections [20], including data governance strategies [5], content management systems [11] and 'traditional knowledge license' models [2, 12], all of which are based in the negotiation of access and control (rather than just access), and support the re-centring of socio-technical infrastructures to the needs of local communities. Though these approaches should be celebrated, others have acknowledged the power structures which persist between 'collecting institutions' and 'source communities' in such 'open' information sharing projects, particularly when 'digital return' is offered as surrogate to the return of cultural heritage objects held at collecting institutions [4]. How do these collaborative processes of 'access control' potentially mask the continued 'soft control' of information flows by dominant memory institutions? What are the ramifications for alternative forms of knowledge creation, interaction and representation based in the negotiation of access online (e.g. social peer-to-peer)?

3. CONCLUSIONS

Rather than taking the Web for granted, we should engage critically with it as a performative socio-technical infrastructure, excavating the historical forces, agents and agendas that underlie the realities and implementations of the Web. In the brief discussion above we have identified ways in which treating openness as a 'universal good' ignores (and marginalises) diversity in cultural practice and those communities that subscribe to them, and obscures the structures of power and control embedded in the processes of the cultural appropriation of knowledge. In this way, questioning the Web's 'openness' is a mechanism by which to explore the digital divide, the inherent politics of the Web as a socio-technical infrastructure, and the historical processes that have led to its development. 'Internet-centrism'[4] mistakenly presents openness as a naturally occurring element of the Internet, and an inevitability that society should adapt to (by 'upgrading their norms') in the hope that the benefits of being open outweigh the costs of adaptation (e.g. the loss of privacy, and creation of a surveillance state) [21]. A de-colonial approach to the Web re-centres the focus from a false binary of open versus closed, towards an approach that considers the cultural situatedness of protocols for information sharing, and the online and offline relationships that determine access. Critical engagement with openness as a social value exposes the culturally situated myth that 'information wants to be free' [11], and advocates for locally contextualised and determined access and use privileges.

Re-imagining the Web from a post-colonial perspective means opening up the black box of universalism to reveal particularities and the power relations that have shaped universal claims about 'openness' and 'everyone' to examine the operation of power in such claims and the diversity of meanings and practices that this might obscure. From this perspective the digital divide should not be about global inclusion in a web already built or managed by its builders according to their pre-determined perspectives, but about a critical reconstruction of how we understand the Web; to question conceptualisations of openness and, perhaps, to build it differently.

[3]For our purposes we use the term 'Indigenous' in line with the UN Permanent Forum on Indigenous Issues 'non-definition' described here: `http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf` [Accessed 18 May 2015]

[4]A term used by Morozov [21] to describe the 'technological defeatism' of approaching the Web infrastructure as an inevitable 'unstoppable force'.

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