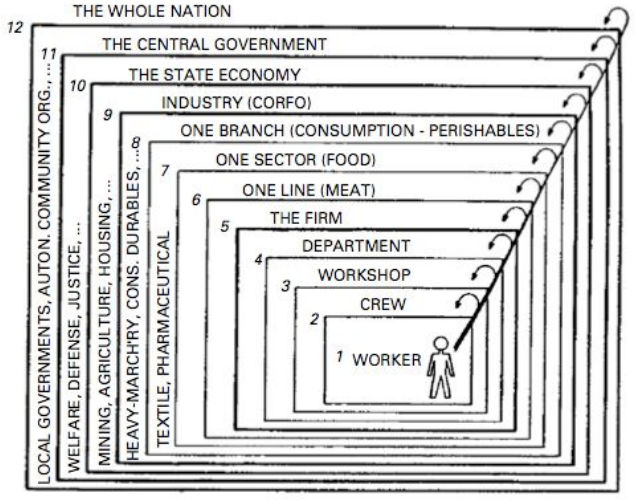
Re-designing the Liberty Machine

The role of cybernetics and theatre as a model for critical engagement with blockchain technology.

Max Dovey
Institute of Network Cultures
max@networkcultures.org
June 2017

Abstract

This paper proposes some performance methods for participating in and engaging with the idea of blockchain, smart contracts and DAOs as a governance technology. It starts with referencing a previous experiment within the field of cybernetics to reflect and consider the political trajectory and potential for blockchains to facilitate decentralized governance. By reflecting on previous experiments that used cybernetics information theory to design models for networked computing within government organisations, a critical analyses of blockchain as a tool for governance can be facilitated. I propose to do this by developing a series of performance scenarios that examine the political ambitions of cybernetic management and recent experiments with blockchain as governance technology. These performance scenarios incorporate the method of 'Forum Theatre' established within the Theatre of the Oppressed movement[1], that uses theatre and performance to reflect on social and political constructs and enable audiences to articulate views, concerns and criticisms with potential applications of blockchain as a governance technology.



A recursive diagram drawn by Beer outlining the overall schematic of project Cybersyn[1]

For 3 years in 1970 an extraordinary experiment took place in Chile to design and construct a distributed decision system that would use data to aid the management and governance of the country. Project Cybersyn was an experiment in political design to build a network of computers to monitor the nationalised sectors of industry and use data to inform economic spending and political decision making. Project Cybersyn was never fully realised and destroyed when Allende was overthrown, but the experiment has been extensively documented in 'Cybernetic Revolutionaries' by Eden Medina (The MIT Press, 2014)[2]. The book focuses on the chief engineer of the project, the British cybernetician Stafford Beer whose research into cybernetic systems and models for governance provide a rich framework with which to examine the prominent development of DLT technology in systems for decentralized governance. In a series of lectures titled 'Designing Freedom'[3] Beer reflects on his experience with designing a computer system to manage and administer tasks on behalf of the government. The abrupt end to project Cybersyn appeared to make Beer only more convinced that cybernetic systems could become the 'Democratic Machinery to replace existing Bureaucracies[4] and be used to 'reclaim

individual freedom'[5]. Beer's visions appear to be a pre-cursor in relation to the shift within crypto communities to build and deploy legal smart contracts and juridical procedures with using blockchain applications. There is potential within blockchain to design and implement autonomous applications that can manage and govern tasks traditionally allocated to a human resource. Ethereum, a platform for developing apps on the blockchain, explicitly encourages developers to build experiments in voting systems, legal applications and democratic organisations which are broadly defined as 'governance 2.0.'[6] The website of Ethereum displays a visual guide on how to 'build a democracy on the blockchain'[7] and many applications use the platform to demonstrate alternative models for democratic governance with decentralized technology at their core. Projects demonstrating blockchain's use as a system for governance include Bitnation, 'A decentralized borderless voluntary nation'[8] to Dyne's D-cent democracy toolkit [9] that is used in political parties in Europe such as Reykjavik [10] and Barcelona[11]. Whilst the political ambitions for using blockchain as a technology to govern or administer democratic procedure differ in each case, I believe that Beer's applied research into cybernetic management provides valuable insights into some of social and political dilemmas of using blockchain to govern or manage citizens. This reference can serve as a useful framework to reflect on the challenges faced when designing such systems but equally can instigate a collectivel reflection on the current field of blockchain in the field of social governance. I propose examining this comparison using performance and participatory workshops to act out and articulate how different technological designs reveal radically different political and social outcomes.

"The big problem was not the technology, it was not the computer, it was [the] people,"[12]

I propose to develop a performative method for disseminating the inherent political implications of blockchain as a governance technology using techniques developed by Augusto Boal's 'Theatre of the Oppressed' [13]. 'Forum Theatre' is a type of theatrical game in which a problem is presented as an unsolved form to which the audience act as 'spect-actors' to enact and suggest solutions. Using methods of theatre and performance that specialise in revealing the social and political consequences of potential scenarios will offer more informed experimentation with governance technologies such as blockchain, smart contracts and DAOs. Using the Project Cybersyn as a clear reference audiences will be able to gain insights into the challenges faced when trying to adapt civic, legal and juridical practices into computational programs. Furthermore, The political implications that drive advancement of blockchain as a governance technology provide rich territory for forum theatre that enables audiences not only to understand some of the technical aspects but challenge and engage with the political territory that cryptography and distributed ledger technology originates from.

Endnotes

1. Boal, Augusto. *Games for actors and non-actors*. London: Routledge, 2010. Print.
2. Medina, Eden. *Cybernetic revolutionaries: technology and politics in Allende's Chile*. Cambridge, MA: The MIT Press, 2014. Print.
3. Beer, Stafford. *Designing freedom*. London: Wiley, 2000. Print.
4. Beer, Stafford. *Designing freedom*. (pg. 35) London: Wiley, 2000. Print.
5. Beer, Stafford. *Designing freedom*. (pg.18) London: Wiley, 2000. Print.
6. "Bitcoin Governance 2.0: Let's Block-Chain Them." *CryptoCoinsNews*. N.p., 13 Oct. 2014. Web. 06 June 2017.
7. For an up to date list of the most recent see http://dapps.ethercasts.com/
8. "Governance 2.0." *BITNATION*. BITNATION, 21 Mar. 2017. Web. 06 June 2017.
9. "Technologies for 21st Century democracy." *D-CENT*. N.p., n.d. Web. 06 June 2017.
10. "Better Reykjavik shines in an independent audit." *Better Reykjavik shines in an independent audit | D-CENT*. N.p., n.d. Web. 06 June 2017.
11. "How it works." *DemocracyOS - Change the Tool*. N.p., n.d. Web. 06 June 2017.
12. Medina, Eden. *Cybernetic revolutionaries: technology and politics in Allende's Chile*. (pg.190) Cambridge, MA: The MIT Press, 2014. Print.
13. Boal, Augusto. *Games for actors and non-actors*. London: Routledge, 2010. Print.