

distributed systems, the aim of this workshop was two-fold. First, to further understand, develop and critique these new forms of distributed power and ownership and second, to practically explore how to design interactive products and services that enable, challenge or disrupt existing and emerging models.

Keywords

Blockchain, smart contracts, distributed autonomous organizations, data physicalization, material mapping

Considering distributed autonomous topics

While the DAOs terminology may seem evasive in its multiple uses, we consider the term to refer to organizations and business models that are underpinned by smart contracts and distributed ledgers, operating somewhat autonomously. These novel technologies mean that concepts of value and value exchange are being challenged in a variety of ways, and, far from being neutral, these innovations are entangled with and are co-producing novel political, economic, social and material arrangements (Kinsley 2014), raising questions of ethics, privacy and the socio-political implications of new forms of distributed authority. The fast-moving industry and research agenda provides an opportunity for designers and HCI researchers to question these novel assemblages both conceptually and in practice. The emergence of DAOs raises questions in many areas, inviting us to rethink current practices of ownership, value and ethical relationships and to reconsider 'value constellations' (Speed and Maxwell 2015) not as independent businesses but entangled networks of people, services and things.

DAO
non-clarification
considering?
when writing?
structures

good
explanation to:
why we I use
should DAOs?
about DAOs?
(Soe Biosci)

This is why I use
social models (whilst
thinking about
social models are for
collective behaviour
modeling collective
behaviour.

Implications of
network topology
on voting mechanisms

Social Network Topology → Possibly Scale-Free.

transgress conventional notions of business ownership.

2. Ownership, power and governance: Central to the conceptual drivers to the workshop is the shift in concepts and practices raised by DAOs. The fact that DAOs are autonomous (and, we will also question what 'autonomous' means in this context) raises questions of responsibility, ownership and power, in particular, what kinds of power relations do DAOs embody and reproduce, and what changes in conventional power relations are brought about by peer-to-peer, autonomous exchange. Similarly, questions are raised around the governance of DAOs, which may

→ e.g. choosing
to-efficient representation
for regular voting?

1. Defining and designing for DAOs: The concepts of value and value exchange raise several interesting questions for designers. There is an existing body of work in HCI that has studied issues of the exchange of money between individuals and organizations (e.g. Carroll and Bellotti 2015); however, little of this work addresses DAOs directly.

As a novel workshop offering interaction designers a platform to consider the implications of designing for a DAO, the main purpose of the workshop was to deepen our presently limited understanding of this rapidly emerging technology to better understand what DAOs are, and how the data and transactions that occur between and with them might be a material for design. This will also expand our understanding of the ways in which DAOs may stimulate new social and commercial relationships that involve novel forms of design, manufacture and user engagement with data. To tackle these broad topics and issues, we have focused the workshop on three key topics as guiding perspectives for our exploration:

Potential
for this
research with
this