EFWG 2022-06-23 Meeting - Trinh Nguyen

Meeting Schedule
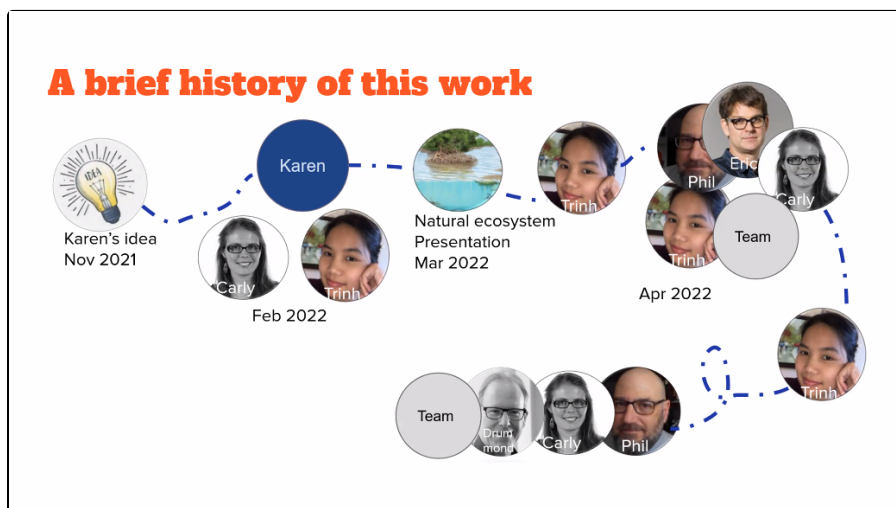
- Bi-Weekly at 8:00-9:00 am PST / 11:00-12:00 am EDT / 15:00 – 16:00 UTC / 17:00 - 18:00 CET
- https://zoom.us/j/95389236256?pwd=RFErMm9SS0tBenA1Q0dSYlpXK3Bqdz09

Attendees

- Steve Magennis
- Carly Huitema
- Eric Drury
- Phil Wolff
- Trinh Nguyen
- Jorge Flores
- Vladimir Simjanoski
- Nicky Hickman
- P A Subrahmanyam

Agenda Items

- Welcome & Introductions
- EFWG Community Topics
  - Governance-across-the-layers meeting is coming up.
- What is a ToIP Ecosystem?

Prior art, Trinh's paper draft.

Objectives

- Understand what "ecosystem" means.
- Propose a definition for a digital trust ecosystem
- Set the foundation for further discussion in governance and digital ecosystem.

Contents

Part I: "Ecosystems" in different disciplines

Part II: Similarities and differences between natural ecosystems and human economies

Part III: Trust Ecosystems

My proposed approach: focus on the characteristics of the ecosystems instead of its components, we will not be buried in the details.

First cut at five pages turned into something longer.

"Ecosystem" in biodiversity (Tansley, 1935; Prior et al, 2000)

An ecosystem is a unit of vegetation that includes the plants, their associated animals, and all the physical and chemical components in that immediate environment.

Characteristics of natural ecosystems:

- Boundaries are defined by research interested, nested system.
- Constantly changing: no "original, pristine" stage of an ecosystem
- Resilient: the degree of recovering from disturbance
- Biologically diverse: The more diverse, the more resilient
- (Ruthless) competition for survival
- The mechanism to control overexploitation.

Social "Ecosystem" in psychology (Bronfenbrenner, 1979)

Social ecosystem theory concerns humans and their living environments and sees individual behavior as influenced by many internal and external/environmental factors.

Characteristics of social ecosystems:

- The individual is the center.
- Micro layer: relationship between an individual with his family, peers, etc.
- Meso layer: the settings that indirectly affect an individual (i.e. labor markets)
- Macro layer: social, cultural norms, beliefs, and ideologies

Business ecosystem (Moore, 1993, Aarikka-Stenroos & Ritala, 2017)

Formally mentioned in the literature by Moore (1993) in an HBR article, became a buzzword by 2010s.

Characteristics of business ecosystems:

- Preceded by concepts like "platform" model, keiretsu, zaibatsu, chaebol, cartel
- The terms is used metaphorically and has many sub-streams
- Base on 2 logic:
  - Co-evolutionary logic (competition and evolution),
  - Boundaries and composition (examine the ecosystem beyond a network of actors)

Data ecosystem (Marcelo et al., 2019)

Data Ecosystems are socio-technical complex **networks** in which actors **interact** and **collaborate** with each other to find, archive, publish, consume, or reuse data as well as to foster innovation, create value, and support new businesses.

Characteristics of data ecosystems:

- Data ecosystem is a nascent research field, publication started in 2014
- There are many definitions, but not yet a conceptual or governance frameworks.
- Emphasizes the material infrastructure which consists of ICT resources and services (i.e. hosting or storage capacity) that facilitate the access and exchange of data.

Comparing them by characteristics: Constant change, favors diversity, resilience, co-evolution, competition, interconnectedness, mechanism to counteract overexploitation, human agency, metaphysical factors (beliefs, norms, cultures)...

Characteristics	Natural ecosystem	Business ecosystem	Data ecosystem	Social ecosystem
Man-made boundaries	Yes	Yes	Yes	Yes
Constant change	Yes	Yes	Yes	Yes
Favors diversity	Yes			
Resilience	Yes	Yes		
Co-evolution	Yes	Yes	Yes	
Competition	Yes	Yes		
Interconnectedness	Yes	Yes	Yes	Yes
Mechanism to counteract overexploitation	Yes			
Human agency		Yes	Yes	Yes
Metaphysical factors (beliefs, norms, cultures)		Yes	Yes	Yes

Comparison table of ecosystems concepts in different disciplines

Grey boxes are either "no" or not described.

Key differences between natural ecosystem and "human economies"

Human agency + technology advancement + cultural adaptation requirement = unchecked **overexploitation** + the rise of monopolies

⇒ human economies are more likely to be collapsed by internal causes than external causes

What is Digital Trust Ecosystem?

Proposed definition:

> **A Digital Trust Ecosystem is an interconnected community of diverse institutional and individual participants in a trust environment sustained by the combined governance of technology and human actors.**

Key concepts:

- Diversity is vital to sustaining an ecosystem
- Trust is the environment, not a single component
- Developing a mechanism to counter overexploitation and monopolies is vital.

Discussion:

Diversity is an attribute or quality, not a necessity. So should not be part of the definition.

There are prior ToIP definitions of ecosystem.

Presentation Files

- Learning Pathways Taskforce

Recording

- Meeting Recording

Meeting Notes

Welcome & Introductions

- Notes

EFWG Community Topics

- TBD - Web5 design. Two of three pillars are DIDs and VCs, third is decentralized web nodes. Perhaps invite them to present with us?
- Q&A

Admin Reminder : remember to re-subscribe to new meeting calendar

If you want your name on the invite, reach out to Elisa Trevino (on slack), she will put your name in the calendar invite to make sure that the invite is sent out each time.

Coming up

- Next presentation: TBD