Actor Network Theory (ANT)

Hani
• Frequently associated with three writers: Michel Callon, Bruno Latour and John Law.
• ANT, may be used a theoretical approach to better reveal the complexities of our sociotechnical world.

• Help us to understand how “truth claims” are constructed and in CSCW, how objects/artefacts enable and mediate organized action.
• Considers both human and non-human elements equally as actors within a network.
• Therefore, we should employ the same analytical and descriptive framework when faced with either a human, a text or a machine. That compose a network within an activity.
“An actor in ANT is a semiotic definition – an actant – that is “something that acts, or to which activity is granted by another”...an actant can literally be anything provided it is granted to be the source of action” (Latour 1996, p.373; see also Callon & Latour 1981, p.286).
Philosophical ontological leveling

• Duality between humans and non-humans
• ANT theorists consciously use the term “sociotechnical network” or “heterogeneous network” in order to overcome the “duality element “between humans and non-humans, and the construction of actor-networks (Callon & Latour 1981; Latour 1987; Law 1994).
• This particular aspect of ANT, called generalized symmetry (Callon 1986a),
• The social and material/technical in networks describes the interplay between technology and people/users
• Unit of analysis
  - Relations and connections between human and non-human actors in real-life situations/«network dynamics»
  - We do not exist in vacuum: any act in the world is influenced by different factors. These create a network.
  - ANT revolves around and describes ongoing processes within such a network.
Two central attributes

• 1. Inscription: technical objects, through their affordances creating a form of «inbuilt prescribed-use», for a purpose.
2. Translation/Delegation

- “appears as the process of making connections between two domains, or simply as establishing communication” through combination and mixing different elements” (Brown 2002, pp. 3-6).

- Translation process continues until alignment/equilibrium is reached
• The result of translation is when certain entities develop control over others
• The translation is then inscribed into a medium, procedure, work plan,…
• The inscription attempts to «define» a framework for possible action.
• The actants may support this inscription process through «enrollment»
problems

• oxymoron “actor-network”. How can something be both an actor and a network? Does this not contradict conventional notions of agency & structure and content & context that have guided social thought since Descartes?

• The answer to this question, briefly, is that everything can be considered both an actor and a network – it is simply a matter of perspective. “Everything”, then, is an actor in a network of action:
Key points

• Symmetry between human and non-human
• Agency of non-human
• Actants both, human and non-human
• Material semiotic: maps concepts and things into a network
• Social order/stability of networks depend on alignment of the network, which occurs through translation of actors interests
• Tools influence actor-structure interactions, they change with accumulating experience.
• In addition to physical shape, the knowledge also evolves.
• Tools are influenced by culture, and their “use” is an expression for the accumulation and transmission of social knowledge.
• Tools influence both the agents and the structure
Video

- Actor network theory in plain English
- https://www.youtube.com/watch?v=X2YYxS6D-ml