Philosophy Term Paper

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Question: What role does technology play in human action and existence? In this connection, critically evaluate Bruno Latour's actor/actant network theory.

From the discovery of fire to the invention of social media, technology has made a significant impact on human existence. Without technology, humans are as good as animals. Technology has played a huge role in our daily activities. From waking up using an alarm clock, connecting the world through the internet, humans are a unique species which have gained superiority by creating, using and destroying objects around them.

Technology has increased production, durability, and efficiency of the products we use. In the medical sector by creating medicines like antibiotics and machines like MRI scan, we are able to better diagnose diseases and are able to create a long lasting cure. This has led to a higher life expectancy of humankind and to a better life. Using social media we are able to connect with each other irrespective of the distance and time. In the real estate sector, we are able to build taller, stronger and long-lasting building. By using cotton, plastic, and silk we are able to create more durable and diverse clothing for humanity. Hence we are able to create a better environment for humans to live by providing better shelter, food, clothing, living standards, and connectivity. This was possible only because of technology.

Though technology has given tremendous applications for humanity. The framework to distribute the profits from them has always been a problem. Various frameworks such as capitalism, communism, or socialism have been proposed and are used but they all come with their flaws. In a capitalist system, the main benefactor is the creator of the technology. In most cases, the creator is able to misuse the trust and exploit its users. This lead to the popularity of communism which sought the give equal profit to everyone, the users, distributors, and the creators but this leads to the corruption of the distributor. Hence even though we have state of the art medicines, due to the cost only the elite are able to utilize them. Even though we have state of the art clothes, many are not armored to face the challenges of cold, heat and rain. Hence even though we have learned to build we have not learned to share.

Another problem with technology is that is it unable to stop itself from destroying humanity. Bombs, gun, drugs, and toxins are created not with a motive to protect humans but to destroy. Technology becomes a source of disruption than creation. Humans lack a framework to stop the misuse of technology.

Hence it is very important to empirically understand the effect of technology and innovation on human actions thus, Bruno Latour and Michel Callon created actor/actant network theory.

Actor-network theory(ANT) can be defined as a methodological and theoretical approach to view the world, where the social and the natural world can be treated as webs or networks.[1]
In the book, *Science for Social Scientists*; London: Macmillan Press Ltd, John Law discusses his early explorations analyze the structure and growth of knowledge as interactions between actors in a network. *Science in Action* written by Latour in 1987 described the various characteristic of ANT tools. These include notions of translation, generalized symmetry and the heterogeneous network. These tool act as a scientometric tool for mapping innovations in science and technology.

As Latour notes, “explanation does not follow from description; it is description taken that much further." [3] The actor-network theory does not explain why the network is created but acts as a tool to describe, analyze and interpret innovation in technology.

ANT is often associated with equal treatment of human and non-human actors. Non-human actors are objects, artifacts, and structures that interact in the network with people by constraining, permitting, facilitating, promoting or responding to human actions.[4]

Latour finds network a fitting term to use because "it has no a priori order relation; it is not tied to the axiological myth of a top and of a bottom of society; it makes absolutely no assumption whether a specific locus is a macro- or micro- and does not modify the tools to study the element 'a' or the element 'b'." [2] Hence according to Latour, the relationship between the actors can be explained only through web/network of interactions and not through any other structure such as a tree, independent nodes or cyclic relations (these all represents a subset of the type of network described by Latour).

ANT theory tries to explain how these actants act as a whole. It tries to explain how the clusters or actors are involved in creating meaning both the materialistic and semiotic. It also looks at explicit strategies developed for relating different elements together into the network so that they form an apparently coherent whole. These networks are constantly changing by making and remaking these relations. [5] This also means that the relations have to be constantly maintained or the network will dissolve. Lastly, these networks can indeed have conflicts.

Integral to ANT is the concept of translation, which is sometimes referred to as sociology of translation. In translation, the innovators attempt to create a forum, a central network in which all the actors agree that the network is worth building and defending. According to Micheal Callon, translation has four key moments.

1. Problematization
2. Interessement
3. Enrollement
4. Mobilization of allies

Actor Theory Network has been widely used internationally as an analytical tool not only in sociology but also in business, urban studies, regional planning, public health and many more. Hence it has become a tool to analyze the effect of technology on various sectors of society. Any object or human can be the center of the attention while evaluating the network and by creating defining the relations we can understand and predict the outcome of interactions in the network. Hence it is also used in designing and testing technology. The cluster of a network has the property to act as a actor itself hence we can understand the relationship of the actor inside the network.

An example of this network would be a “business”. A business has different operations such as service, marketing, sales, research, and development. These operations can be treated as different actors or can be treated as a cluster and a collective object. Hence we can analyze the business as a whole inside the network or each operation in the network. Hence we can evaluate collective objects interactions which are very helpful for estimating the success of a technology.

According to Whittle and Spicer “ANT has also sought to move beyond deterministic models that trace organizational phenomena back to powerful individuals, social structures, hegemonic discourses or technological effects. Rather, ANT prefers to seek out complex patterns of causality rooted in connections between actors.” Hence ANT should challenge the structure and the patterns of connection between the actors.

ANT insists non-humans be actors in the network. Many key figures argue that *intentionality* fundamentally distinguishes humans from non-humans.

ANT has been criticized to be amoral. Which is true as morality is an attribute that can be added to the network but it's not a necessity. Before adding morality to the network it must be clear what is the purpose of the network and whether morality is required in the network.

Another criticism is that it does not account for pre-existing structures. In our example of the business as a network, we have already defined various operations but there is no way to understand the composition and relations that constitute each operation. These actors and their relations were predefined and ANT does not handle the construction or the interest of these structures.

ANT can be seen as an attempt to explain successful innovators by saying only that they were successful. Likewise, for organization studies, Whittle and Spicer assert that ANT is, "ill-suited to the task of developing political alternatives to the imaginaries of market managerialism."

Some critics argue that ANT's approach falls into an endless relativist regress and that it fails to provide explanations for social processes. It also requires the researcher to make the judgment call on which actors are important and that the importance of an actor cannot be evaluated if the actor is not present in the network itself.

Hence we can conclude that Bruno Latour's incremental work actor/actant network theory has helped the community to analyze various structures, relations, and entities as a network of actors. By defining various actors and their attributes and relations we can design, interpret and measure the innovation. This method of analyzing has some pitfalls such has an endless chain of relations and ill-defined process of creation but has been very informative for measuring the success of human existence due to technology.

Resources

1. https://en.wikipedia.org/wiki/Actor%E2%80%93network_theory
2. http://www.bruno-latour.fr/sites/default/files/P-67%20ACTOR-NETWORK.pdf
3. http://www.bruno-latour.fr/sites/default/files/46-TECHNOLOGY-DURABLE-GBpdf.pdf
4. https://www.igi-global.com/dictionary/parawork/38239
5. http://townsendgroups.berkeley.edu/sites/default/files/reassembling_the_social_selections.pdf