

## Theories of technology, society and innovation systems


The **sociology of technology** is an emerging but as yet embryonic field. It is concerned with explaining how social processes, actions and structures relate to technology.

Does technology shape society, or does society influence our technological choices? Is technological determinism a theory of society or a theory of technology? (The debate on Science, Technology and Society (STS) studies has been animated by two opposite views on technology: one that affirms that technology shapes society, and the other that society shapes technology. The former, is commonly associated with the notion of **technological determinism**; while the latter could be labeled '**social shaping of technology**' which covers various approaches, such as social constructivism and actor-network theory.

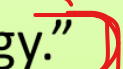
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# Technological Determinism



Technological determinism is coined by Thorstein Veblen in 1920s. It belief that technology is the agent of social change. Technology moulds society and change our behavior. It is the notion that technological development is autonomous with respect to society; it shapes society, but it is not reciprocally influenced. It exists outside society, but at the same time influences social change. In technological determinism, the technology is seen as the most significant determinant of the nature of society. Simply we can say that it refers to the idea, “ We have no choice but to adopt this technology.”



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There are various views on technological determinism and how to classify it; the most common labels being hard and soft determinism. According to Marx and Smith (1994), on the one hand, hard technological determinists impute agency (the power to produce change) to technology, and imply that technological development is inescapable, inevitable. Marx said , “The windmill gives you society with the feudal lord: the steam mill with the industrial capitalist.”

On the other hand, soft determinists recognize human agency, and that changes in history are due to various and complex social, economic and cultural factors.

- According to some sociologists-
- Technological determinism is unsatisfactory because technologies do not follow some predetermined course of development. Research and development are the significant determinant of the sorts of technologies to develop. Its development is also depends on broad range of social, political and economic factors. It is clear that culture play a role in shaping the history of technological development, and that societies do not develop along a unique, fixed path.