



# The sociology of technology before the turn to technology



Ryan Gunderson

Department of Sociology & Gerontology, Miami University, 375 Upham Hall, Oxford, OH 45056, USA

## ARTICLE INFO

### Article history:

Received 5 February 2016

Received in revised form

30 July 2016

Accepted 12 August 2016

Available online 15 August 2016

### Keywords:

Science and technology studies

Classical sociology

Mauss

Veblen

Cooley

Weber

## ABSTRACT

This project recommences an underdeveloped conversation between the sociology of technology and classical sociology. There was a vibrant and consistent interest in technology among sociology's founders between Marx and Ogburn and revisiting this tradition is beneficial for contemporary sociological studies of technology. In addition to functioning as exemplars of excellence for the sociology of technology, classical sociology provides distinctive and important considerations and contributions, including: the potential benefits of borrowing technology (Veblen), the ecological influences on technological development and use (Cooley), the impact of technology on science (Mauss), and the rationalization of technology (Weber). Most importantly, classical sociology offers partial though unique frameworks for examining technology in society and vice versa, frameworks that are novel precisely because they are out of sync with recent trends.

© 2016 Elsevier Ltd. All rights reserved.

## 1. Introduction

I share the commitment of Weinstein [92] and Westrum [94] to the fruitfulness and contemporary relevance of classical sociological insights for the sociology of technology. However, I problematize and parse out the argument that, “[a]fter Marx [until the 1920s, i.e., Ogburn] there was a long hiatus in social thought about technology. Although there were important social theorists who wrote on the subject, systematic attention to technology and its social relations was absent” [94: p. 50, cf. 92: ch. 2]. A good deal of work within and outside the subfield has shown the depth, complexity, and dynamism of Marx's analysis of technology [e.g., 5,39,45,59: ch. 2, 60: pp. 29–39,93,94: ch. 2], thereby correcting the view of Marx as the archetypal technological determinist. To a lesser extent, William F. Ogburn—if we conceive of his early work as part of the classical period—has received a fair amount of attention in the subfield [e.g., 14,32,92,94: ch. 3].<sup>1</sup> It is correct to assert that sociological analysis of technology tapered between Marx and Ogburn, but there are a number of notable exceptions during and immediately following this period. In addition to reinforcing and deepening Weinstein's [92: p. 46] argument that Thorstein Veblen's system of thought was “a conscious and explicit

sociology of technology,” I show that a series of other classical sociologists offer the subfield important insights: Charles H. Cooley, Marcel Mauss, and Max Weber.<sup>2</sup>

While acknowledging labor process studies' debt to Marx or citing the Ogburn tradition, some contemporary sociologists consider the sociological study of technology a more recent affair. Woolgar [97] famously announced a “turn to technology” in the

E-mail address: [gunderrm@miamioh.edu](mailto:gunderrm@miamioh.edu).

<sup>1</sup> See Duncan [16: pp. 352–353] for complete bibliography of Ogburn's works on technology.

<sup>2</sup> A few justifications concerning the exclusion and inclusion of particular sociologists and related social scientists seem necessary (exclusion is chiefly due to length restraints). The goal was to select classical sociologists (1) whose ideas I believe contribute to contemporary technology studies and (2) whose contributions primarily sit chronologically in between the work of Marx and Ogburn. The latter were both excluded due to a larger awareness of their ideas among contemporary theorists of technology (see introductory citations). Cooley, although a social psychologist, was included as a classical sociologist because he is often considered one [e.g., 11,34], he worked in a sociology department, and his social psychology is sociological. Early American sociologists of technology after Ogburn, including those associated with the Ogburn tradition [e.g., 25], were excluded because their work largely falls outside what is typically considered the classical period [e.g., 12,13] or was short-lived [e.g., 3]. Spencer's [71: Part 8] theory of technological change in industrial progress, Simmel's [e.g., 65: ch. 6] critique of autonomous technology as objective culture [24], and Scheler's [e.g., 63: ch. 5] critique of “life's” enslavement by the “tool” were excluded due to length restraints and because I have discussed Simmel's and Scheler's sociologies of technology together elsewhere [28]. Additionally, sociological non-sociologists, such as Mumford [54] and Spengler [70], were excluded from analysis due to length. (As one reviewer pointed out, Marx would also be more accurately branded a “sociological non-sociologist” seeing as he associated sociology with Comte's positivism and never aimed to be a sociologist [41: p. 9].)

social studies of science in 1991, Pinch and Bijker [58: p. 25] stated that “[t]here have been some limited attempts in recent years to launch [a sociology of technology]” before their approach, or, in Russell’s [61: p. 337] reply to the former piece: “technology studies have hardly started.” Certainly, sociological inquiries of technological development and impacts have become more important in the field in recent decades—from microsociology [6: pp. 539f] to environmental sociology [27: pp. 67f]—and it is clear that sociologists, no matter the specialty, should critically reflect on modern technology’s place in their teaching and research [98]. However, perhaps only Weinstein [92] and Westrum [94]—with notable other exceptions discussed in the proceeding sections—take seriously insights from other “old” sociologies of technology during the resurgence in the sociological study of technology since the mid-1970s. Tracing the sociology of technology back to the early modern period, Weinstein [92] showed that modern technology and social science were twin-born, with the early moralists and political economists keen to the moral impact and social potentials of technology. If we are to place modern disciplinary distinctions on this history, Weinstein suggests that an interest in technology from a sociological perspective began with its founder, Comte, who, originated sociology in order to help bring about a Saint-Simonian technocratic order, requiring an integration of technology and sociology. Marx, of course, sustained a sociological analysis of technology, as highlighted above. However, following the institutionalization and specialization of the sciences, the sociology of technology following Marx and preceding Ogburn supposedly became more “passive” and less overt [92,94]. According to Weinstein [92: p. 35], although Weber’s academic sociology contains valuable insights for the sociology of technology, it neglected a systematic analysis of technology, a turn that has influenced the discipline at large. In America too—partially due to the influence of Weberian sociology, a focus on perfecting methodological techniques, and increasing academic specialization—little attention was devoted to sociological analysis of technology, with two exceptions: Ogburn and, earlier, Veblen. However, as Westrum [94: ch. 3] has shown, Ogburn’s near-technological determinism “died out” and the death of Ogburn school—ironically symbolized by the publication of a textbook in 1957 that was intended to begin a new field [2]—almost killed the sociology of technology until its resurgence in the mid-1970s.

The purpose of this project is twofold. First, I hope that the article acts as a stimulus for contemporary sociologists of technology to revisit classical sociological works. None of the classical sociologists receive the in-depth attention that they deserve as the goal is to recommence a conversation with the classics. However, I do provide enough explication and interpretation to point interested sociologists of technology in the right direction for deeper investigation. Nor do I provide any serious critiques of the thinkers covered. If this project is an illustration of Adorno’s [1: p. 4] warning that theoretical perspectives today mirror commodities in a marketplace, where “[e]ach one is offered as a possibility among competing options,” it is due to a conviction that something has been lost without maintaining a conversation with classical thinkers as a whole, as proposed in the concluding comments. The point is to rekindle this conversation, not to immediately limit it. Second, I show that there was a vibrant and consistent interest in technology among sociology’s forefathers. By rethinking prominent classical sociologists as early representatives of the sociology of technology, the goal is for the article to also spark new interest in the sociology of technology among scholars of classical sociology formerly unconcerned with the sociological aspects of technology. After detailing classical sociology’s diverse and unique conceptualizations of technology-society interactions, I conclude with a statement explaining the potential fruitfulness of revisiting the

classics in the sociology of technology.

## 2. Veblen: sociologist of technology *par excellence*

Technology was the central, though not sole determining [55: p. xxv], variable in Veblen’s sociology. He offers the subfield insights on the social nature of technology, technological development and its relation to social change, and the diffusion and borrowing of technological innovations. Further, his critique of modern capitalism, monopolized and primarily concerned with increasing profits through finance, and normative views regarding an alternative social future are rooted in an analysis of technological change and its social conditions.<sup>3</sup> While Veblen’s views on technology have received attention in institutional economics [e.g., 29,85] and the history of technology [35], it is surprising and unfortunate that he is imperceptible in contemporary sociological studies of technology. Perhaps this is due to his relative neglect in studies of classical sociology [67]. Although none of his works can be given adequate treatment here, his catalog provides one of the most systematic and penetrating analyses of technology in the discipline’s history.

Technology, in Veblen [79: p. 103], was interpreted as a strictly social affair:

[t]echnological knowledge is of the nature of a common stock, held and carried forward collectively by the community, which is in this relation to be conceived as a going concern. The state of the industrial arts is a fact of group life, not of individual or private initiative or innovation. It is an affair of the collectivity, not a creative achievement of individuals working self-sufficiently in severalty or in isolation. In the main, the state of the industrial arts is always a heritage out of the past; it is always in process of change, perhaps, but the substantial body of it is knowledge that has come down from earlier generations.

Although individuals contribute to the current state of the industrial arts, any advancement and innovation, even in specialized sectors, comes from their familiarity with the existing “immaterial equipment,” or state of technological knowledge. Innovations from the “savage state of the industrial arts” to the “machine age” are cumulative developments in the “common stock of technology” [79: p. 104]. In Veblen [76: pp. 131ff, 79: ch. 3], social evolution itself is a cumulative and dynamic process of technological development and institutional adaptations, when institutions are understood as “prevalent habits of thought with respect to particular relations and particular functions of the individual and of the community” [76: p. 132]. However, the state of the industrial arts cannot be reduced to the tools and machines utilized. For example, in his vivid discussion of the “machine process” of modern industrial production, Veblen [77: p. 9] clarified that the “scope of the process is larger than the machine”: it stretches across all industries, comprises human bodies, the vast and diverse storehouse of knowledge needed to operate the machinery, a wealth of material inputs, and the standardization of time, communication, and consumption, thereby forming a comprehensive system.

The state of technological development conditions and challenges established habits of thought. In his discussion of the evolution of causal thinking, Veblen [78,79: ch. 5] argued that the development of machine technologies has shaped the modern “matter-of-fact” way modern humans, particularly industrial workers, engineers, and scientists, interpret the world in

<sup>3</sup> Due to length restraints, I do not review Veblen’s [79] theory of instincts, where the “instinct of workmanship” “underlies” all technological systems.

Download English Version:

<https://daneshyari.com/en/article/6851506>

Download Persian Version:

<https://daneshyari.com/article/6851506>

[Daneshyari.com](https://daneshyari.com)