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## **ELECTRONIC MARKETS**

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Electronic markets can be defined as markets mediated by electronic communications systems. The term was originally used in management information systems to refer to electronic procurement systems, securities exchanges and other inter-organizational systems. From 1990s onwards the meaning of the term expanded to include consumer Internet marketplaces such as auction and travel booking sites. Today electronic markets also include smartphone apps that connect consumers to providers of goods and services.

A popular explanation for the rise of electronic markets is that new information and communication technologies have reduced transaction costs to make it increasingly economical to use markets instead of hierarchies to coordinate transactions (Malone, Yates, & Benjamin 1987). Management scholars, computer scientists, and especially economists associated with the subfield of market design have helped engineers design auction systems, reputation systems and other institutional mechanisms that make market-style exchanges possible between participants who may be distant and pseudonymous (Roth & Ockenfels 2002; Lehdonvirta & Castronova 2014). Economic sociologists and science and technology studies scholars have examined the social construction of electronic markets, or how different interests, norms, conflicts and knowledges come to be reflected in electronic markets' institutional and material architectures, shaping market outcomes (Pinch & Swedberg 2008; MacKenzie 2009).

Electronic markets play a growing role in both the sociology of work and the sociology of consumption. In the sociology of work, electronic markets are noted for their role in value chain restructuring and the associated transformations of work and employment. Inter-organizational electronic markets are used in processes of vertical disintegration, geographic dispersion and specialization, and the lengthening of supply chains towards independent contractors and portfolio workers (Hoque et al. 2011; Flecker 2016). Online marketplaces and smartphone apps create markets for ever smaller units of commodified and precarious labor, referred to as the 'on-demand economy' or the 'gig economy' (Bergvall-Kåreborn & Howcroft 2013; Lehdonvirta 2016).

In the sociology of consumption, electronic markets are noted for their role in changing consumption practices and objects of consumption. Critical observers are concerned that constantly available electronic markets, engineered to exploit psychological weaknesses, contribute to hyperconsumption and the commodification of childhood (Ritzer 2001, Grimes 2015). Celebratory accounts posit that electronic markets empower consumers by eliminating gatekeepers and enhancing consumers' ability to seek information and collaborate (Lehdonvirta 2012; Belk 2013). Other issues include the experiential and cultural aspects of online

marketplaces and the rise of virtual goods as a category of consumption (Denegri-Knott & Molesworth 2012; Lehdonvirta, Wilska, & Johnson 2009).

Some electronic markets are blurring the boundaries between producers and consumers. This has provoked debates about 'prosumerism', 'crowdsourcing' and the 'sharing economy', in which commentators identify both exploitative and empowering aspects and implications to wider society (Kleemann et al. 2008, Ritzer & Jurgenson 2010). A key concern in this nascent area is how electronic markets reconfigure the institutional underpinnings of an economy.

Belk, R. (2013) Extended Self in a Digital World. *Journal of Consumer Research* 40(3): 477-500.

Bergvall-Kåreborn, B. & Howcroft, D. (2013) 'The future's bright, the future's mobile': a study of Apple and Google mobile application developers. *Work, Employment and Society* 27(6): 964-981.

Denegri-Knott, J. & M. Molesworth (eds) (2012) *Digital Virtual Consumption*. New York: Routledge.

Flecker, J. (ed.) (2016) *Spatial Dynamics of Virtual Work*. London: Palgrave-Macmillan.

Grimes, S. (2015) Playing by the market rules: Promotional priorities and commercialization in children's virtual worlds. *Journal of Consumer Culture* 15(1): 110-134.

Hoque, K., Kirkpatrick, I., Lonsdale, C., & De Ruyter, A. (2011) Outsourcing the procurement of agency workers: the impact of vendor managed services in English social care. *Work, Employment and Society* 25(3): 522-539.

Kleemann, F., Voß, G. G., and Rieder, K. (2008). Un(der)paid Innovators: The Commercial Utilization of Consumer Work through Crowdsourcing. *Science, Technology & Innovation Studies* 4(1): 5-26.

Lehdonvirta, V. (2012). A History of the Digitalization of Consumer Culture. In: J. Denegri-Knott and M. Molesworth (eds), *Digital Virtual Consumption*. New York: Routledge, pp. 11-28.

Lehdonvirta, V. (2016) Algorithms That Divide and Unite: Delocalization, Identity, and Collective Action in 'Microwork'. In: J. Flecker (ed.), *Spatial Dynamics of Virtual Work*. London: Palgrave-Macmillan.

Lehdonvirta, V. & Castronova, E. (2014) *Virtual Economies: Design and Analysis*. Cambridge, MA: MIT Press.

Lehdonvirta, V., Wilska, T.-A., & Johnson, M. (2009) Virtual Consumerism: Case Habbo Hotel. *Information, Communication & Society* 12(7): 1059-1079.

MacKenzie, D. (2009) *Material Markets: How Economic Agents are Constructed*. Oxford: Oxford University Press.

Malone, T. W., Yates, J., & Benjamin, R. I. (1987) Electronic markets and electronic hierarchies. *Communications of the ACM* 30(6): 484-497.

Pinch, T. & Swedberg, R. (eds) (2008) *Living in a Material World: Economic Sociology Meets Science and Technology Studies*. Cambridge, MA: MIT Press.

Ritzer, G. (2001) *Explorations in the Sociology of Consumption: Fast Food, Credit Cards and Casinos*. Sage: London.

Ritzer, G. & Jurgenson, N. (2010) Production, Consumption, Prosumption The nature of capitalism in the age of the digital 'prosumer'. *Journal of Consumer Culture* 10(1): 13-36.

Roth, A. E & Ockenfels, A. (2002). Last-minute bidding and the rules for ending second-price auctions: Evidence from eBay and Amazon auctions on the internet. *American Economic Review* 92 (4): 1093–1103.