



Revista CEA
ISSN: 2390-0725
ISSN: 2422-3182
revistacea@itm.edu.co
Instituto Tecnológico Metropolitano
Colombia

Introduction: Artificial Intelligence in Management



Woodcock, Jamie

Introduction: Artificial Intelligence in Management

Revista CEA, vol. 9, núm. 21, 2023

Instituto Tecnológico Metropolitano

Disponible en: <https://www.redalyc.org/articulo.oa?id=638175311003>

DOI: <https://doi.org/10.22430/24223182.2848>



Esta obra está bajo una Licencia Creative Commons Atribución-NoComercial-CompartirIgual 4.0 Internacional.

Editorial

Introduction: Artificial Intelligence in Management

Jamie Woodcock
University of Essex, Reino Unido de Gran Bretaña e Irlanda del Norte

jamie.woodcock@googlemail.com

 <https://orcid.org/0000-0001-7097-305X>

Revista CEA, vol. 9, núm. 21, 2023

Instituto Tecnológico Metropolitano

DOI: <https://doi.org/10.22430/24223182.2848>

Editorial:



Artificial Intelligence (AI) has become a popular topic of debate, both within and beyond academia (Pasquale, 2015; Kitchin, 2017; O’Neil, 2017; Turow, 2017; Eubanks, 2019). According to some commentators, we are on the cusp of major social and economic change. The future of work is now to become the present. This introduction aims to lay out some of the emerging and pressing issues relating to AI in management. It is not an attempt at prediction or doomsaying but instead outlines what research questions and methods can equip us to make sense of these changes.

The first point to make is that AI can mean many things. It is a very broad category of digital technologies, and the concept of intelligence is open to interpretation. For example, using a word processor to write this introduction – as well as having software provide advice on spelling and grammar, as well as Grammarly interjecting – is not commonly thought of as AI in the contemporary sense. Neither are all the automated functions used in the preparation of a journal. However, if the response to ChatGPT prompts were included in the text, suddenly there would be a discussion about the use – and misuse – of AI. One part of the problem is that AI becomes a technology in the future. Other forms of digital technology are able to slide into the background around how we work, while AI is drawn into sharp focus. Technology has always been used in the labour process. However, today we use technology as a stand-in for digital technology, forgetting the long history of tools and machinery that came first.

Thinking back to this longer history of technology at work is an important reminder of how fraught technological development can be. Technology does not develop in a linear fashion. Instead, there are often multiple options, choices taken by those with power or money, and conflict over how technologies are used in practice. Noble’s classic study of automation in a factory demonstrates how the technology that provides the most control for management can succeed over forms that are more technically effective (Noble, 1978).

Automation also has a longer history than digital technology. Struggles over automation have been an important part of factory work – even going back to textile work and the Luddites (Binfield, 2004). The introduction of machinery to the labour process, shifting what Marx called the “organic composition of capital” (Marx, 1990), is part of the attempt to increase the productivity of workers. As Notes from Below have argued:

There is often a binary understanding of automation, either something will be automated or not. This leads to a focus on the machine – how effective is the new self-driving vehicle – rather than looking at how automation is actually affecting work and workers. Rather than an either-or, automation is used much more as an *augmentation* of the labour process (Notes from Below, 2018, par. 14).

Therefore, the task for those interested in a workers’ perspective of technological change should start from the dynamics at work and understand how and why it is happening.

One challenge is that there is substantial media hype around new AI technology. As Mike Cook (2018) has put it, “many people are misrepresenting AI in order to make it appear more intelligent than it is”. There is a need for investment and the hype plays an important role in future development. This can also risk the emergence of forms of “fauxtimation”, which Astra Taylor (2018) uses to explain how “automated processes are often far less impressive than the puffery and propaganda surrounding them imply—and sometimes they are nowhere to be seen” (par. 4).

Much of the contemporary debates has focused on platform work (Srnicsek, 2017), and particularly on algorithmic management (Lee et al., 2015; Rosenblat & Stark, 2016; Scholz, 2017; Rosenblat, 2018). Here there are examples of the applications of AI that are transforming the labour process and consumption of some services, like transportation or delivery. So far, platforms have provided a “laboratory for capital” (Cant, 2019), testing out new uses of AI that could then be applied more widely. There have also been lively debates on how workers are responding to these changes (Waters & Woodcock, 2017; Fear, 2018; Briziarelli, 2019; Gent, 2019; Cant, 2019; Leonardi et al., 2019; Cant & Mogno, 2020; Tassinari & Maccarrone, 2020).

A second important challenge is to understand how these technologies are actually used at work. As I have argued elsewhere (Woodcock, 2022), “algorithmic systems of control at work have both strengths and weaknesses” (p. 5). They can be effective in some cases, or more limited elsewhere. Algorithmic management can operate like a panopticon (Woodcock, 2020), working effectively until challenged, either through strikes or other forms of collective action. As Rob Kitchen has argued, “algorithms are used to seduce, coerce, discipline, regulate and control: to guide and reshape how people . . . interact with and pass through various systems” (Kitchen, 2017, p. 19). However, management in the workplace operates through specific “systems of control”, including “direction” of tasks, the “evaluation” of performance, and “discipline”, used to “to elicit cooperation and enforce compliance with the capitalist’s direction of the labour process” (Edwards, 1979, p. 18). This also means that workers can, and indeed do, push back on forms of control.

Future research is urgently needed to understand three key things. First, how (and why) are AI technologies being developed? Technologies are developed from within existing social relations. This means that they are developed by people or organisations with specific material interests and to be used for particular aims. Second, how (and why) are AI technologies being used in practice? Technologies need to be introduced into workplaces that already have power relationships and conflicts over other aspects of the work. Are they being used to increase efficiency, control, reduce the number of workers, or for other reasons? Third, what effective strategies are being developed to either resist, subvert, or find alternative uses for AI? Across each of these questions, further empirical research is needed that moves beyond advertising claims or predictions. Instead,

critical research is needed to uncover the struggles over AI as they are developing in the here and now. This is what will shape the future of work to come.

REFERENCES

- Binfield, K. 2004. *Luddites and Luddism*. The Johns Hopkins University Press.
- Briziarelli, M. (2019). Spatial Politics in the Digital Realm: The Logistics/Precarity Dialectics and Deliveroo's Tertiary Space Struggles. *Cultural Studies*, 33(5), 823–40. <https://doi.org/10.1080/09502386.2018.1519583>
- Cant, C. (2019). *Riding for Deliveroo: Resistance in the New Economy*. Cambridge: Polity.
- Cant, C., & Mogno, C. (2020). Platform Workers of the World, Unite! The Emergence of the Transnational Federation of Couriers. *The South Atlantic Quarterly*, 119(2), 401–11. <https://doi.org/10.1215/00382876-8177971>
- Cook, M. (2018). *A Basic Lack of Understanding*. Notes from Below. <https://notesfrombelow.org/article/a-basic-lack-of-understanding>
- Edwards, R. (1979). *Contested Terrain: The Transformation of the Workplace in the Twentieth Century*. Basic Books.
- Eubanks, V. (2019). *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. St. Martin's Press.
- Fear, C. (2018). "Without Our Brain and Muscle Not a Single Wheel Can Turn": The IWW Couriers Network. Notes from Below. <https://notesfrombelow.org/article/without-our-brain-and-muscle>
- Gent, C. (2019). *The Politics of Algorithmic Management: Class Composition and Everyday Struggle in Distribution Work*. University of Warwick.
- Kitchin, R. (2017). Thinking Critically about and Researching Algorithms. *Information, Communication & Society*, 20(1), 14–29. <https://doi.org/10.1080/1369118X.2016.1154087>
- Lee, M. K., Kusbit, D., Metsky, E., & Dabbish, L. (2015). Working with Machines: The Impact of Algorithmic, Data-Driven Management on Human Workers. In *CHI '15: Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, pp. 1603–1612. ACM Press. <https://doi.org/10.1145/2702123.2702548>
- Leonardi, D., Murgia, A., Briziarelli, M., & Armano, E. (2019). The Ambivalence of Logistical Connectivity: A Co-Research with Foodora Riders. *Work Organisation, Labour & Globalisation*, 13(1), 155–171. <https://doi.org/10.13169/workorglaboglob.13.1.0155>
- Marx, K. (1990). *Capital: A Critique of Political Economy*. Vol. 1. Penguin.
- Noble, D. F. (1978). Social Choice in Machine Design: The Case of Automatically Controlled Machine Tools, and a Challenge for Labor. *Politics and Society*, 8, 313–47.

- Notes from Below. (2018). *Editors' Notes on Class Composition and Technology*. Notes from Below. <https://notesfrombelow.org/article/editors-notes-on-class-composition-and-technology>
- O'Neil, C. (2017). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. Penguin.
- Pasquale, F. (2015). *The Black Box Society: The Secret Algorithms That Control Money and Information*. Harvard University Press.
- Rosenblat, A. (2018). *Uberland: How Algorithms Are Rewriting the Rules of Work*. University of California Press.
- Rosenblat, A., & Stark, L. (2016). 'Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers'. *International Journal of Communication*, 10, 27. <http://dx.doi.org/10.2139/ssrn.2686227>
- Scholz, T. (2017). *Uberworked and Underpaid: How Workers Are Disrupting the Digital Economy*. Wiley.
- Srnicek, N. (2017). *Platform Capitalism*. Wiley.
- Tassinari, A., & Maccarrone, V. (2020). Riders on the Storm: Workplace Solidarity among Gig Economy Couriers in Italy and the UK. *Work, Employment and Society*, 34(1), 35–54. <https://doi.org/10.1177/0950017019862954>
- Taylor, A. (2018). *The Automation Charade*. Logic Magazine.
- Turow, J. (2017). *The Aisles Have Eyes: How Retailers Track Your Shopping, Strip Your Privacy, and Define Your Power*. Yale University Press.
- Waters, F., & Woodcock, J. (2017). Far From Seamless: A Workers Inquiry at Deliveroo. *Viewpoint Magazine*. <https://www.viewpointmag.com/2017/09/20/far-seamless-workers-inquiry-deliveroo/>
- Woodcock, J. (2020). The Algorithmic Panopticon at Deliveroo: Measurement, Precarity, and the Illusion of Control. *Ephemerata: theory & politics in organizations*, 20(3), 67–95. <https://ephemerajournal.org/sites/default/files/2022-01/20-3Woodcock.pdf>
- Woodcock, J. (2022). Artificial Intelligence at Work: The Problem of Managerial Control from Call Centers to Transport Platforms. *Frontiers in Artificial Intelligence*, 5. <https://doi.org/10.3389/frai.2022.888817>