

Algorithmic technologies in organizing food supply

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Purpose: To better understand how the organizational aspects of food retailing, we study the introduction and diffusion of algorithmic technologies drawing on data from the UK food retail market. We are particularly interested in how algorithms have changed the nature of distribution – moving from a focus on products to a focus on customers, their behaviors, and the associated data analytics.

Design/methodology/approach: Theoretically, we draw on a performative perspective of technologies and thus a practice-based understanding of the recursive interaction between people and technologies over time (Orlikowski, 2000; 2007). Studying the generative character of algorithms in the organizing of food systems, we explore how algorithms have built on the preferences of consumers, turning the sourcing of food into a highly automated transaction. Our paper, consequently, focuses on how algorithms are perceived and employed by food retailers and how this has changed the nature of food retailing in the UK over the last 40 years.

Findings and practical implications: The paper's contribution is twofold. First, by considering the use of algorithmic technology in food retailing, we shed light on how algorithmic technologies change the way in which food supply is organized. Examining the agency power of algorithmic technologies in the organizing of food distribution systems adds to our understanding of the generative and transformative nature of technologies (Barley, 1986; Orlikowski, 2007). This particular focus on big data and algorithmic technologies contributes to how such technologies are changing the way organizations function and it points to the challenges and opportunities that lie ahead of us (Constantiou & Kallinikos, 2015; Etzion & Aragon-Correa, 2016). Second, our study highlights the impact such transition has on how food is being viewed in our society. This adds to current research on how food markets have become increasingly driven by financial and economic considerations (Clapp, 2016; Ghosh, 2010).

Originality/value: In contrast to the attention that customer data attracts in practice as well as in marketing research, theorization and detailed empirical investigations focusing on how algorithms and big data have impacted the organizing of food distribution are rare.

Keywords: algorithms, big data, power, Transparency, technology-in-use.

Article classification: Research Paper