Chapter 21
The Impact of Disruptive Digital Technologies on Organizational Structures and Marketing Systems:
Democratization of Marketing in the Solidarity Economy

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ABSTRACT

Disruptive digital technologies, such as Web 3.0 and 3D printing, have been instigating new organizational structures and by extension new marketing systems given that they change and evolve in response to technological and social changes. By capitalizing upon institutional theory, this chapter delineates how Web 3.0 technologies enable social change via global collaborative commons, which have the potential to ascertain distributive justice for public at large. It also prognosticates how the marketing discipline in Era V (2020-?) will have to go through a sea change to reproduce and carry itself to a further level if it does not want to face the risk of extinction.

INTRODUCTION

Disruptive digital technologies (DDTs), such as Web 3.0 and 3D printing have been instigating new organizational structures and by extension new marketing systems. The traditional marketing system under the influence of Dominant Social Paradigm (DSP) has been morphing into a "purposeful marketing system", which has been evoked by digital commons or Global Collaborative Commons (GCCs) in recent years. The tradition-shattering purposeful marketing system is a reciprocative one based on

distributive justice, which rejects the pre-established and socially constructed structures and appears to complement tradition-bound regnant marketing system, if not to replace it.

Until the onset of the new millennium, traditional chain-and-command organizations (CCOs) have been operating in the context of tradition-bound marketing system or the "received marketing paradigm", which essentially prioritized growth, customer life-time value, targeting middle- and upper-class high value markets (Achrol & Kotler, 2012). The received marketing paradigm was also firm-centric and aimed to create value inside the business entity. Starting from 2007, these vertically integrated CCOs have adopted Web 2.0 technologies and incorporated users into their innovation and value creation activities in alignment with the new innovation paradigm, called open innovation (Chesbrough, 2003). This paradigm change has been evolutionary in its approach to value creation as it emphasized the importance of crowdsourcing and co-creation in innovating, devising, and developing creative products by drawing on external agents. Even though co-creation through Web 2.0 includes users in design and production, the process is orchestrated and controlled by the firm over a centralized platform through "value-in-access" perspective (Kelleci, 2021). This practice is a continuation of "marketing-as-usual" perspective (Sheth & Sisodia, 2006) and still entails a firm-centric approach to value creation. In firm-centric marketing-as-usual perspective, the goal is to increase sales and profitability largely on behalf of shareholders. Nevertheless, today, this approach has been shifting toward decentralized management approaches due to the advances in Web 3.0 technologies, the rise of participatory culture and, consequently, the emergence of Open Value Networks (OVNs) and Global Collaborative Commons (GCCs) respectively. These spawned organizational structures (i.e., OVNs and GCCs) stimulate a new marketing system, which capitalizes on a new type of value-creation, called "value-in-participation" (Kelleci, 2021).

Both OVNs and GCCs are rested on open-source movement. Nevertheless, there are a number of differences between them. By way of illustration, OVNs draw on Web 2.0 technologies, and they primarily enable intangible (or in some cases tangible) public resource sharing, resting largely on "value-in-possession" perspective (Richins, 1994). For instance, Open Motors, formerly known as OSVehicle, could be illustrated as an example of OVNs given that the company's purpose is to share intangible resources to democratize mobility. On the other hand, GCCs make use of Web 3.0 technologies and they seek to share revenue and distribute wealth on a fair basis. Web 3.0 is the underlying enabler of an emerging Global Collaborative Commons (GCC) movement by dint of Internet of Things (IoT) and Artificial Intelligence (AI) together with 3D Printing or additive manufacturing. IoT is a powerful twenty-first century intelligent network, which makes it ideal to reify "postcapitalist commoning", evoked by supra-individual digital collective intelligence (Peters & Reveley, 2015). This new organizational structure portends a paradigmatic form of nonmarket – social production in an emerging economic paradigm of twenty-first century, called solidarity economy. In this regard, GCCs are more revolutionary configurations as they rest on the emerging "value-in-participation" perspective, which aims to create distributed or inclusive value for society at large. (Kelleci, 2021, p. 4). Thus, GCCs appear to bring about shock and awe for traditional chain-and-command organizations (CCOs). For instance, Sensorica, which is conceived as GCC, could be illustrated as a paradigmatic form of social production. It aims to develop crowd-sourced hardware and software services (e.g., IoT, precision agriculture, renewable energy, scientific instruments), which is based on commons-based peer production (CBPP) movement (Wikipedia, 2021). Sensorica is not a corporation but could be defined as a non-registered association, which employs a value accounting system (VAS) to evaluate the contributions of Sensoricans (members of Sensorica) and to compute equity in the product, i.e., percentage of contribution (P2P Foundation, 2011). VAS as a new social contract, which ensures that contributors will have their fair share in the future as well. In other words,

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