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Information Technologies and Consumers' Well-Being: Latest Research and Future Research Directions

Martina Benvenuti, Daniele Scarpi, and Lia Zarantonello

Since our 2021 call for a special issue in the *Journal of Interactive Marketing* on Information Technologies and Consumers' Well-Being, interest in this topic has continued to grow. The database Business Source Premier identifies 76 publications since 2021 that have "technology" in the title and include "well-being" in the author-supplied abstract, as well as 447 publications with both "technology" and "well-being" in the abstract. Calls for special issues on technology and well-being topics have also appeared in other major marketing journals in the last two years, including the *Journal of Consumer Affairs* and *Psychology & Marketing*.

This ever-growing interest in the topic of new technologies and consumers' well-being can be explained by considering, on one side, the unprecedented development in information and communications technologies, and, on the other side, the increased usage of such technologies by large numbers of consumers in many countries around the world. The accelerating role that the COVID-19 pandemic has had in this process has been acknowledged (Amankwah-Amoah et al. 2021), with the result that new technologies, such as artificial intelligence (AI), the Internet of Things, and augmented and virtual reality, among others, have become increasingly important in consumers' everyday life and are changing consumers' experiences in the context of products, services, and brands (Hoyer et al. 2020; Pantano and Scarpi 2022; Puntoni et al. 2021; Zarantonello and Schmitt 2023). Understanding how information technologies are affecting consumers' well-being therefore represents an area of primary importance.

A total of 39 papers from China, Finland, France, India, Italy, Lebanon, Poland, Türkiye, and the United Kingdom were submitted in response to our call for papers, and 12 of them successfully went through the review process and are presented in this special issue. These articles advance our understanding of the relationship between new technologies and consumers' well-being from different perspectives and through the use of different research methodologies. The aim of this editorial is to discuss the state of current research on information technologies and consumers' well-being. Accordingly, it provides an overview of the articles in the special issue and highlights how they contribute to the

growing literature on the topic. It also identifies and outlines future research directions by indicating and discussing areas that require further investigation.

Consumers' Well-Being and Information Technologies in the Special Issue Articles

The special issue articles contribute to the development of the well-being concept in relation to new technologies. Consistent with the literature, a complex, multifaceted concept of consumers' well-being emerges from the articles contained in this special issue. Three levels of conceptualization of well-being emerge from the articles (see Table 1).

The micro level, which refers to consumers as single entities with individual responses, considers specific types of individuals (older consumers, parents, children, etc.). The meso level views individuals in relation to other people and other entities, such as through activities (i.e., shopping) and products (i.e., services). Finally, the macro level extends beyond single entities/groups and focuses on society as a whole. Although most contributions view this concept from a micro perspective and, consistent with the psychology and positive psychology literature (Diener, Oishi, and Tay 2018), refer to well-being as "subjective well-being" or "psychological well-being," other special issue articles consider well-being from a meso (e.g., social well-being) and macro (e.g., societal well-being) level.

To understand how consumers' well-being is studied in relation to new technologies in the special issue articles, it is useful to apply the antecedent-construct-outcome model (Figure 1).

Figure 1 shows that consumers' well-being is considered as an antecedent or construct (the main object of investigation) in only a few articles. Tuan, Visentin, and Di Domenico (2023) conceptualize consumers' well-being as an antecedent of boycotting behavior based on the assumption that consumers' well-being can determine

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Table 1. Micro, Meso, and Macro Levels of Consumers' Well-Being.

Micro Level	
<i>Person:</i> Anticipated well-being (Egaaied-Gambier, Bertrandias, and Bernard 2023), eudaimonic well-being (Tikkanen, Heinonen, and Ravald 2023), hedonic well-being (Tikkanen, Heinonen, and Ravald 2023), immediate emotional relief (Egaaied-Gambier, Bertrandias, and Bernard 2023), overall well-being (physical and mental) (Dhiman and Kumar 2023; Lee and Wan 2023), perceived well-being (Attie and Meyer-Waarden 2023), psychological well-being (Dhiman and Kumar 2023), subjective well-being (Dhiman and Kumar 2023; Raggiotto and Scarpi 2023; Tuan, Visentin, and Di Domenico 2023)	<i>Type of person:</i> Children's and adolescents' well-being (Dhiman and Kumar 2023), consumer happiness (Dhiman and Kumar 2023), emerging adults (Raggiotto et al. 2023), consumers' well-being (Dhiman and Kumar 2023; Yu, Peng, and Wang 2023), Generation Z's well-being (Attie and Meyer-Waarden 2023), older people's well-being (Wilson-Nash, Pavlopoulou, and Wang 2023), parents' well-being (Egaaied-Gambier, Bertrandias, and Bernard 2023), patients' well-being (Gaczek et al. 2023), user well-being (Attie and Meyer-Waarden 2023)
Meso Level	
<i>Group:</i> Social well-being (Wilson-Nash, Pavlopoulou, and Wang 2023)	<i>Type of product/activity:</i> Food-related well-being (Dhiman and Kumar 2023), service well-being (Dhiman and Kumar 2023; Feng and Meng 2023)
Macro Level	
Financial well-being (Dhiman and Kumar 2023), societal well-being (Dhiman and Kumar 2023)	

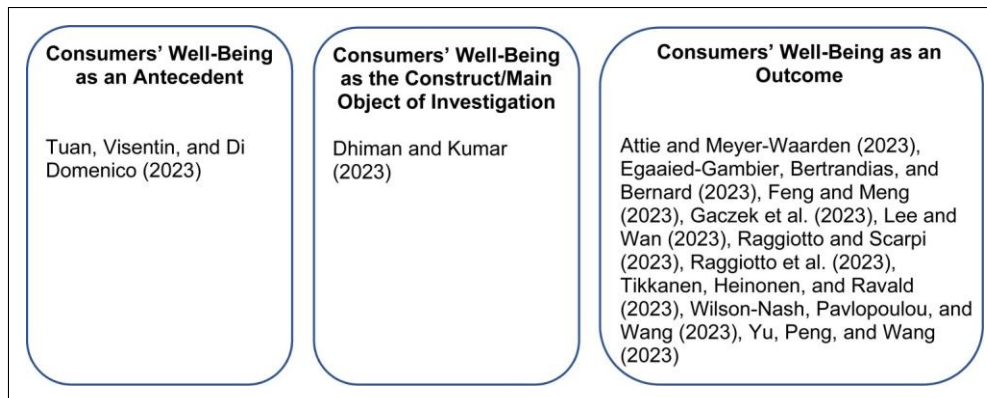


Figure 1. Consumers' Well-Being in Information Technology Research.

their responses. Dhiman and Kumar treat consumers' well-being as a construct (the main object of investigation), which is analyzed through a systematic literature review.

The other articles in the special issue view consumers' well-being as an outcome variable. In this vein, Raggiotto et al. (2023) enrich the literature on problematic internet use, applying the cognitive behavioral model from psychology in the novel consumer context of e-sports. The other articles demonstrate how well-being can be impacted by different types of new technologies, such as smart wearable technologies (Tikkanen, Heinonen, and Ravald 2023), sleep apps (Attie and Meyer-Waarden 2023), AI-produced health care recommendations (Gaczek et al. 2023), mobile payment (Yu, Peng, and Wang 2023), contactless technology (Feng and Meng 2023), social networking services (Wilson-Nash, Pavlopoulou, and Wang 2023), parental control software (Egaaied-Gambier, Bertrandias, and Bernard 2023), and video games (Raggiotto and Scarpi 2023). Finally, Lee and Wan (2023) address how technology can improve well-being by promoting healthy eating habits.

This tendency to consider consumers' well-being mainly as an outcome (i.e., a dependent variable) is aligned with the literature on well-being and new technologies (e.g., Liu et al. 2019).

Table 2 presents a summary of the key aspects of the 12 special issue articles.

Avenues for Future Research

In this editorial, we identify and suggest five areas of investigation for future research on information technologies and consumers' well-being (Figure 2).

Consumers' Individual Differences

Consumers' individual differences can play an important role in the relationship between information technologies and consumers' well-being. Examples of consumers' individual differences examined in this special issue include consumer's privacy concerns (Attie and Meyer-Waarden 2023; Raggiotto and Scarpi 2023), sanguine versus melancholic personality traits (Attie and Meyer-Waarden 2023), consumers' anxiety (Gaczek et al. 2023), parents' role overload (Egaaied-Gambier, Bertrandias, and Bernard 2023), consumers' perceived control over the digital environment (Raggiotto and Scarpi 2023), and consumers' maturity in terms of age (Raggiotto

Table 2. Special Issue Articles.

Authors (Alphabetical Order)	Main Findings	Research Method(s)	Key Dependent Variables	Well-Being-Related Variable(s)	Type of Technology
Attie and Meyer-Waarden	Sleep apps positively influence perceived usefulness, perceived ease of use, real use, and perceived well-being; privacy concerns and personality traits moderate the direct effects on perceived well-being.	Survey	Intention to use, perceived well-being	Perceived well-being	Mobile apps
Dhiman and Kumar	Three themes emerge in relation to consumer happiness: marketing beyond satisfaction, marketing for health and mind, and digital felicity.	Systematic literature review	—	—	—
Egaaied-Gambier, Bertrandias, and Bernard	Digitally assisted control improves parents' anticipated well-being, decreasing role overload and increasing parental efficacy. Product features are critical, with software designs promoting children's and product autonomy being less effective in improving parents' well-being.	Online experiment, survey	Immediate emotional relief, anticipated well-being	Parental well-being, anticipated well-being	Parental control software
Feng and Meng	Personal cognitive traits and contactless technology alter consumers' perceived connectedness to the servicescape, influencing their perceived value and well-being.	Quasi-experiments	Perceived psychological closeness, perceived physical distance, connectedness to the servicescape	Perceived value, self-efficacy	Contactless technology in services
Gaczek et al.	Consumers' willingness to rely on AI-produced health care recommendations depends on the valence of the medical diagnosis, consumers' perception of diagnosis trustworthiness, consumers' health anxiety score, and social proof.	Experiments, online experiments	Perceived AI's diagnosis trustworthiness, willingness to follow AI's medical recommendation	Patient's well-being	AI in health care
Lee and Wan	<i>Mukbang</i> live streaming's content, influencer, and channel impact consumers' perceived value, impulse purchase, and food consumption.	Experiments	Consumers' perceived value and impulse purchase	Food consumption	<i>Mukbang</i> live streaming
Raggiotto et al.	Online social support	Online survey	Well-being	Problematic internet use,	Social

(continued)

Table 2. (continued)

Authors (Alphabetical Order)	Main Findings	Research Method(s)	Key Dependent Variables	Well-Being-Related Variable(s)	Type of Technology
	offsets the negative effect of problematic internet use; social support reduces the negative influence of problematic internet use on prosocial behavior; but only for adult consumers.			prosocial consumer behavior, online social support	networking sites
Raggiotto and Scarpi	E-sports can lead to well-being by achieving feelings of self-enhancement under the positive moderation of perceived control over the digital environment and the negative moderation of privacy concerns.	Online survey	Well-being	Subjective well-being	E-sport videogames
Tikkanen, Heinonen, and Ravalid	Consumers use smart wearable technologies for agency in well-being. Four technology use types for well-being emerge: self-improvement, justification, adaptation, and activism.	Self-reported questionnaires, qualitative interviews	—	Personal well-being	Smart wearable technologies
Tuan, Visentin, and Di Domenico	For Generation Z consumers, subjective well-being is key in activating (vs. inhibiting) boycott behaviors as a response to unethical situations encountered both online and offline	Online experiments	Enact boycott, support boycott	Subjective well-being	Online context
Wilson-Nash, Pavlopoulou, and Wang	Older consumers leverage three strategies—selection, optimization, and compensation—to improve their use of social networking services and social interactions during COVID-19 lockdown	Netnography, in-depth interviews	—	Social well-being	Social networking services
Yu, Peng, and Wang	Mobile payment triggers consumers' hedonic mindset, which, in turn, increases their preferences for hedonic products. This effect is moderated by mobile device type	Experiment, online experiment	Number of hedonic products listed, ease of listing hedonic products	Consumers' well-being	Mobile payments

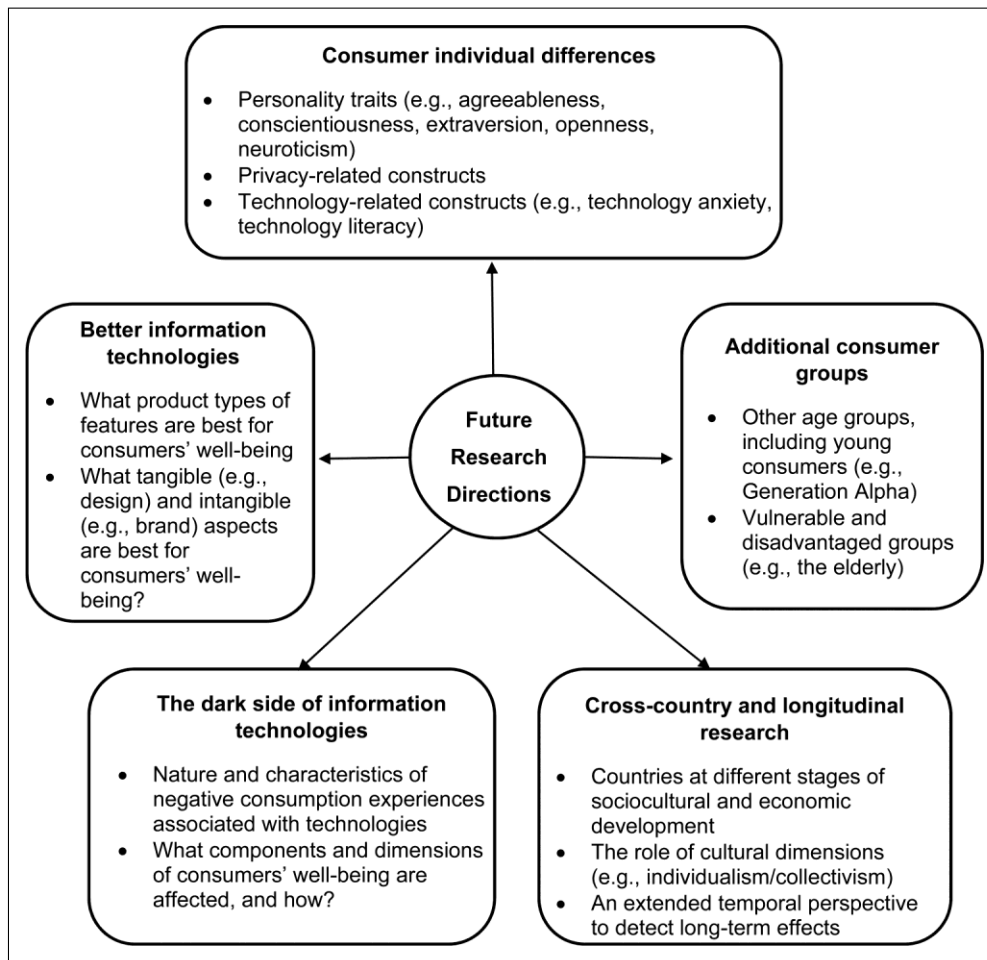


Figure 2. Future Research on Consumers' Well-Being and Information Technologies.

et al. 2023). To extend the set of individual differences, future research could examine additional personality traits (e.g., the “Big Five,” such as introversion/extraversion), privacy-related constructs, attitude, and technology-related variables (e.g., technology anxiety, technology literacy).

Additional Consumer Groups

The special issue articles investigate the relationship between information technologies and well-being in relation to specific groups of consumers defined based on their age, such as Generation Z and emerging adults (Attie and Meyer-Waarden 2023; Raggiotto et al. 2023; Tuan, Visentin, and Di Domenico 2023) and older consumers (Wilson-Nash, Pavlopoulou, and Wang 2023), and their role in an interpersonal/social context, such as that of parents (Egaaied-Gambier, Bertrandias, and Bernard 2023) and patients (Gaczek et al. 2023). Future research should include additional groups of consumers, including very young ones (e.g., Generation Alpha) for which new technologies play a key role in their development, and should continue to investigate more vulnerable and disadvantaged groups (e.g., the elderly).

Cross-Country and Longitudinal Research

Extending the context of analysis across geographic and temporal boundaries would also contribute to advancing our understanding of information technologies and well-being. The special issue articles were conducted in single countries, albeit at different levels of sociocultural and economic development (Inglehart 2018), including China (Yu, Peng, and Wang 2023), France (Egaaied-Gambier, Bertrandias, and Bernard 2023), and the United Kingdom (Wilson-Nash, Pavlopoulou, and Wang 2023). Future research could use cross-country comparisons and cultural aspects to understand the extent to which nationalities and culture dimensions (Hofstede 2020; Kaasa 2021) affect the relationship between new technologies and well-being. By extending the temporal perspective of analysis, adopting a longitudinal study approach could help shed light on the long-term effects of new technologies on consumers' well-being and societal well-being.

The Dark Side of Information Technologies

The special issue articles focus on the positive impact of information technologies and well-being. As suggested by some of

the articles in this special issue (e.g., Raggiotto and Scarpi 2023), the negative effects of new technologies on consumers' well-being are currently an underdeveloped and understudied area of research. Examples of aspects that could be investigated include the nature and characteristics of negative experiences associated with new technologies, as well as the components or dimensions of consumers' well-being that are affected. Important implications could be derived from these studies to help mitigate and better manage the negative effects of new technologies on well-being.

Better Information Technologies

The last avenue for future research that we suggest refers to the information technologies themselves. Some of the special issue articles (e.g., Egaied-Gambier, Bertrandias, and Bernard 2023; Yu, Peng, and Wang 2023) demonstrate how types or features of the product (e.g., hedonic vs. utilitarian; Yu, Peng, and Wang 2023) or of the technology (e.g., contactless vs. with contact; Feng and Meng 2023) affect consumer responses and well-being. Finally, Lee and Wan (2023) examine how content, influencer, and channel factors of *mukbang* live streaming affect health in terms of food consumption. Further investigation of how tangible (e.g., design) and intangible (e.g., brand) aspects of new technologies impact consumers' responses and consumers' well-being could help develop solutions that contribute to individual and societal well-being.

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