Is Our Digital Life Sustainable？

A Brief Review of Digitalization's Impact on Consumer Choice

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Abstract

Today's technologies bring new challenges, ideas, and endless possibilities to the market and people's lives. This study provides a brief yet critical reflection of digitalization's impact on consumer choice from a sustainability viewpoint. In digital life, consumers face more choice options and more information about various options. These choices influence decision-making and have a cumulative impact on consumer autonomy and wellbeing. As we transition into a world where everything is connected to everything else, it is high time to rethink the impact of digital technology on consumer choices and behaviors. This study contends that sustainable digital behavior is about carefully selected online activities that support our goals. It calls us to reconsider whether our digital activities contribute to individual and collective improvements and wellbeing in the long run. It further underlines consumer choice and explores behavioral change towards sustainable use of technology from a rational and psychological perspective. In doing so, it contributes to the discussions of digital technology and sustainability and promotes sustainable digital practices.

Keywords：Sustainable behavior, digitalization, consumer choice, sustainability

（for my students, for digital natives）

Ⅰ Introduction

Global forces and digital technologies bring new challenges, ideas, and possibilities to the market and people's lives. With endless possibilities and opportunities, the onus of 'technology for good' is not only on tech companies and regulators but also on consumers. In today's world, we are expected to deal with more things and make more decisions in our business and personal lives. There is no doubt that digitalization（or digital transformation）provides many benefits such as connectedness at anytime and anywhere, convenience in transactions

and communications, increased productivity, and so forth. Given these benefits and endless other possibilities, we tend not to notice or be less concerned about the damaging impacts of digitalization on consumers as individuals and decision makers whose behaviors have a cumulative impact on sustainable development goals (SDGs). Thus, the question of how the overabundance of information and choice overload, or the "norm" of digital life affects our wellbeing is hardly raised. In the connected digital world, consumers face infinite options and endless distractions. Consumers (especially the younger generations) use online information and engage with digital devices in most of their waking hours. It is in the main interest of tech companies and advertisers for consumers to be connected 24/7/365 days a year; is it also in the best interest of consumers to always be connected?

Discussions concerning 'technology and sustainability' mostly touch on the following issues: first, the utilization of technology to develop more sustainable methods to produce goods and services, second, the use of online technologies such as social media platforms to promote sustainable consumption and/or disseminate sustainability-related information and third, how the use of internet, computers and various mobile devices influence energy and resource consumption. The present study extends the scope of technology and sustainability debates; it focuses on the link between consumer choice processes and the sustainable use of technology at an individual level. In line with the notion of human sustainability, I argue that our digital life will only be sustainable if it contributes to the improvements and wellbeing of consumers as individuals and society at large. In this regard, human sustainability relates to improving the quality of life and people's ability to not only survive but also to thrive in a digital world. The ability to do so requires not only digital literacy and/or to make the best use of digitalization benefits but also to recognize its adverse consequences on our cognitive resource, consumer choice and autonomy, and in turn wellbeing. Moreover, compulsive, and excessive use of technology (or other life necessities) is counterintuitive to sustainability.

Sustainability debates often discuss 'green' or sustainable products and encourage action that shifts purchase behavior towards these products. As a society, we aspire to be a sustainable community and practice "reduce, reuse, and recycle" in our daily lives. In this respect, sustainability is viewed as living within the limits of available natural and economic resources. If our cognitive resource i.e., attention is viewed in the same manner, to what extent should we tolerate (or resist) the realities of the so-called 'attention economy' that dominates our digital life? In the context of consumer interaction with digital tools, what is the link between

consumer choice and wellbeing？ And what is the role of consumer as an individual to survive and thrive in a digital world？ These are the key questions that have framed and motivated my inquiry. Like other natural and economic resources, our cognitive resource is also scarce, and it is high time to rethink and reflect on whether this resource is used towards our wellbeing in the long run.

This study argues that a sustainable digital life is not about less or more use of digital tools. It is about developing a mindset or a philosophy of technology use in which we as users of digital technology focus our online time on carefully selected activities. To a certain extent, this study draws attention to customer relationships with digital tools. This 'relationship' is prevalent in today's world and the one that we "cannot live" without. From a sustainability viewpoint, digital practices are deemed 'sustainable' if they are directed at individual and social improvements. The next sections include brief discussions of digitalization's impact and consumer choice, technology and sustainability, propositions for sustainable digital practices, and finally, conclusions and implications for further inquiry.

Ⅱ　Digitalization's Impact and Consumer Choice

Digital transformations include a host of powerful, accessible, and game-changing technologies like the internet of things（IoT）, artificial intelligence（AI）, big data, social media, mobile, cloud, analytics, cognitive computing, and so forth. For companies to take full advantage of the opportunities these technologies offer, digitalization requires the transformation of their operations and innovations that deliver enhanced products, services, and customer engagements. For the mainstream consumers, digitalization simply means the use of digital tools and services such as easy access to online information to perform various tasks in everyday lives at anytime and anywhere. As we transition into the post-pandemic era, digitalization will be more pertinent and there is no retreat from digital life. The process of shifting to a full-blown digital life is exciting and thrilling but also unnerving given its speed, scale, and various consequences.

Lange and Santarius（2020）argued that in its tangible forms, the technology always embodies the interests and intentions of its makers. However, this does not mean that the users or recipients of technology must embrace it to the full extent of its capabilities regardless of the negative consequences. Pew Research Center（2018）conducted a study that asked technology experts, scholars, and health specialists to share their personal experiences and

anecdotes of digital life（see Table 1）. The result of Pew's study reaffirms the merits of digitalization such as connectedness, convenience and various tools related to health, safety, productivity, and so forth. At the same time, the study also confirms that excessive and mindless use of digital tools and online information is damaging to cognitive capabilities which include capacity for analytical thinking, focus, creativity, reflection, and mental resilience. Note that the participants of Pew's study are the experts and professionals who are well-versed of both the positives and negatives of digital life and are equipped to make a responsible choice, the mainstream users may not be fully aware of digitalization impact and/or lack the ability to deal with overabundance information and choice overload.

Table 1 : Digitalization Impact

THE POSITIVES OF DIGITAL LIFE	THE NEGATIVES OF DIGITAL LIFE
Glorious connectedness : Abilities to reach out and connect directly and globally with friends, family, colleagues, knowledge, education, entertainment anytime and anywhere in a nearly free and frictionless manner.	**Connectedness overload** : Low-friction instant access to nearly everything, anytime, anywhere is causing stress, anxiety, sleeplessness, loss of patience and missing out on or diminishing important face-to-face social interactions and experiences.
Invent, reinvent, innovate : Digital tools enable people to invent or reinvent their lives and careers. They can also innovate through wide networking with people and information that allows them to develop businesses, find the perfect job, and meet new friends, colleagues, and fellow interest-sharers.	**Trust tensions** : There are concerns among experts about issues of security, surveillance, and privacy. The business model of internet platforms is mostly built on an attention economy that rewards addictive products that heighten users' emotions and perpetuate polarization.
Life-saving advice and assistance : People can tap into and share medical, safety and health resources and support at any time, which is crucial for personal health and a game-changer for people engaged in child and elder care.	**Personal identity issues** : In social networks, self-promotion, narcissism, click bait, trolling, propaganda, and pressures to conform are social issues that causing some individuals to experience the loss of self-confidence and self-esteem.
Efficient transactions : The internet revolutionizes life, logistics and experiences and provide benefits including online education, researching purchases or anything, online shopping, social connections, planning trips, or co-ordinating activities－which allow people to be more mobile, savvy and globally enriched.	**Focus failures** : Digital life also fosters shallow engagement with information as people glide through multiple information streams daily, taking little time for reflection. People have a diminishing capacity to concentrate well enough to stay on task and do long-term, deep dive thinking.

Source : PEW Research Center（2018）

Interestingly, fifty years ago, Herbert A. Simon, who was both a psychologist and economist wrote about the scarcity of attention in a world of overabundance information: "In an information-rich world, the wealth of information means a dearth of something else : a scarcity

of whatever it is that information consumes. What information consumes is rather obvious : it consumes the attention of its recipients. Hence, a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it". (Simon 1971, pp. 40-41). In digital life, customers are expected to use digital tools and make more decisions in their daily activities. However, even in the slightest online activities such as browsing desired product information, reading news updates, or checking emails, it can be overwhelming due to endless distractions from the companies that are vying for consumer attention. In *The Attention Economy*, Thomas Davenport and John Beck discussed the notion of "attention economy" and how it works in the marketplace where attention is treated as a "new currency". In this economy, the cost for companies to reach their potential customers has become sufficiently low, and more ads can be transmitted via online media or platforms at anytime and anywhere. These online ads and information are just more than the consumer can process and lead to attention deficit.

Competing for consumer attention is not a new market reality ; it started long before the birth of digital advertising. However, before the widespread of the internet and digital platforms, advertising tools were mostly restricted to offline media and were not as distractive and intrusive as compared to online advertising tactics. Generally, advertising strategies assume that consumers go through a linear process of decision making i.e., Attention→ Interest→ Desire→ Action, or known as an AIDA model. This process suggests that attention is the first stage of the communication process, thus it is a crucial aspect to influence consumer decisions. According to Davenport and Beck (2001), attention is a focused mental engagement on a particular item or information. They described a model of attention processes where items come into our awareness, we attend to (or ignore) a particular item before deciding whether or not to act. The concept of attention management is useful far beyond advertising ; it is crucial for productivity and our everyday lives beyond consumption.

In a broader sense, choice is the essence of human lives ; it improves the quality of life and enables people to realize their goals. When people have no choice, life is almost unbearable and meaningless. However, when the number of choices keeps growing, the negative effects of having too many options begin to surface. Scheibehenne et.al. (2010) argued that an increase in the number of options to choose from may lead to adverse consequences such as a decrease in the motivation to choose or the satisfaction with the finally chosen option. Other studies such as Iyengar and Lepper (2000) suggested that while individuals may often be attracted by the variety of choices, an overabundance of options to choose from may some-

times lead to unfavorable consequences such as a decrease in overall satisfaction and negative emotions that include disappointment and regret. To a certain extent, an increase of a set of options or "choice overload" may also lead to a decrease in the motivation to choose, to commit to a choice, and/or to make any choice at all.

Choice overload is a reality of digital life where consumers face more choice options and more information about various options. Many studies underline choice as essential to autonomy and consumer wellbeing (see Schwartz 2004, André *et. al*, (2017). In *The Paradox of Choice*, Barry Schwartz points that many people in the modern world are feeling less and less satisfied even as their freedom of choice expands, and in some cases also led to clinical depressions. He argues that people would be better off if they embraced certain voluntary constraints on their freedoms of choice. The abundant choice does not force people to look for the absolute best of everything or even to choose the best option but allows people to find out the things they really care about. His argument is particularly relevant in digital life at a time when excessive and compulsive use of online information is evidently damaging to people's wellbeing. Berthon and Pitt (2018), argued that the surge of interest in mindfulness training and stress reduction program is credited to the rising cost of mindlessness related to internet addiction, compulsive use of social media, pressures to conform, trust issues, and so forth.

Digitalization will continue to expand people's boundaries, opportunities, and choices. While choice is essential to consumer autonomy and wellbeing, the increased number of choices also led to adverse consequences to our cognitive processes. Sustainable digital life calls for people not to shy away from efforts to recognize digitalization's impact on people's wellbeing physically and mentally. For instance, while we value the convenient aspects of e-commerce, we need to recognize that online shopping experience can also cause emotional distress and consumers feeling even less satisfied with the choice and/or decision. André *et. al*, (2017) provided analysis on how AI and big data have influenced consumer choice and autonomy and, in turn, consumer wellbeing. The authors discussed how companies use these technologies for behavioral targeting that allow consumers to effortlessly discover a product of their interest and make a purchase decision. Certainly, digitalization has revolutionized the marketplace and opening a world of opportunities for businesses and consumers. A case in point, the current coronavirus pandemic that has strengthened the role of e-commerce and accelerated the digitalization of businesses and people's lives. Whilst digitalization continues to revolutionize the marketplace, it is also instrumental to overconsumption and

other adverse consequences, and this should not escape notice.

Ⅲ　Technology and Sustainability

Most discussions on sustainability concern with social, environmental, and economic issues. Sheth *et. al*, （2010） pointed out that discussions of sustainability are mostly targeted at policymakers, industries, and businesses. The focus and systematic analysis of consumers whose behaviors have a major and cumulative impacts on sustainability issues remain scarce. Goal 12 of the United Nations Sustainable Development Agenda 2030 （SDG 12） calls for responsible consumption and production, aiming at "doing more and better with less" to improve the quality of life and leave "no one behind" （United Nations, 2015）. As mentioned in the previous section, research on sustainability and technology also focuses on how digitalization can facilitate and advance efforts relevant to sustainable development goals or touch on sustainable issues such as energy and resource consumption directed at goods and services. In '*Smart Green World*?', Lange and Santarius （2020） provided a profound analysis concerning digitalization impacts on social, economic, and environmental issues. Their insights encouraged debates and critical reflection on what 'sustainability' truly means in the digital era.

In this digital world, companies and consumers act as the "producers" and/or "users" of various applications, contents, and online information. It is thus important to underline the roles and responsibilities of companies and consumers towards sustainable production and consumption. At an individual level, this study contends that the use of digital tools is only sustainable if their usage contributes to personal and social progress. In a broader sense, digitalization is sustainable if it also serves social and ecological improvements. Studies on sustainable marketing discuss sustainability issues and how they impact businesses and consumers, however, they lack details of what constitutes sustainable use of technology. Most research on sustainable consumption mainly aims to influence consumer behavior change towards the green product or to reduce consumption. For instance, White et. al. （2019） proposed a comprehensive framework for conceptualizing and encouraging sustainable behavior change. Their framework includes psychological factors which are social influence, habit formation, individual self, feelings and cognition, and tangibility. In one of their propositions, they argued that consumers who are encouraged to focus on the future self will be more likely to engage in sustainable behavior. In this regard, it is important to make sustainable
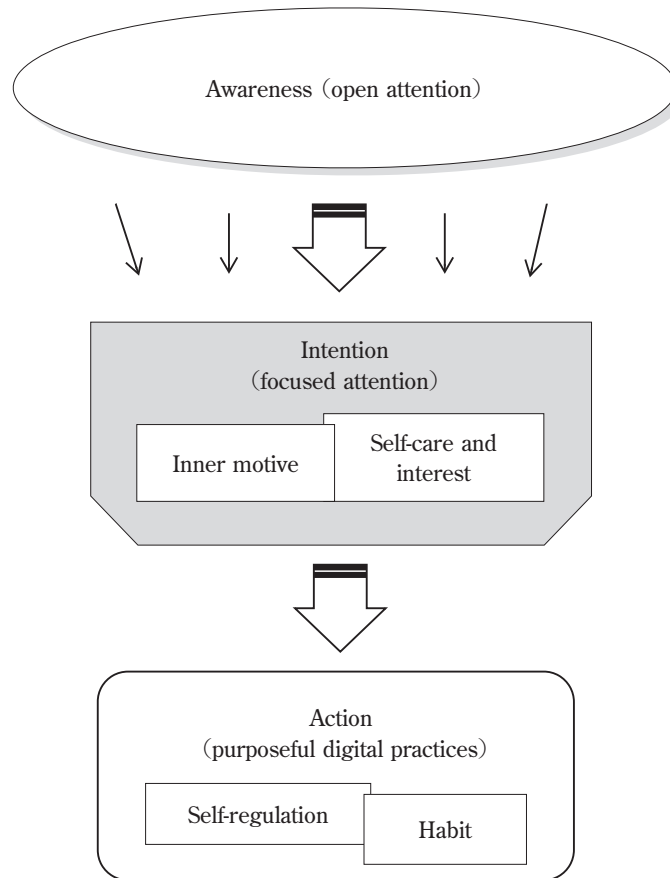
consumption less abstract by demonstrating the current and future "benefits versus costs" more concrete and personal.

In discussing digitalization's impact, most debates remained "neutral" i.e., technology is seen as neither good nor bad. People mostly view technology as a tool that can be used for various purposes and continue to debate on the promises and perils of digitalization. However, a common consensus is that digitalization and overabundance of information lead to the continuous demand of people's perceptual and cognitive abilities. The availability and fluidity of information also lead to tireless product search and comparison among the various options that complicate consumer decision-making. The IoT allows for everything to be connected to everything else in our business and personal lives. In digital life, we are surrounded by billions of sensors and smart devices. AI will further analyze the enormous data for surveillance and behavioral patterns that influence consumer decisions. For tech companies that provide "free" platforms and services, one of their main goals is to gather the actual "customers" i.e., advertisers, and collect the data of the people who use their platforms i.e., the mainstream users (who are regarded as their "product"). Thus, the users of technology must think of issues such as "to what extent should we tolerate (or resist) being 'treated as a product' for the information providers and advertisers?" and "in the world surrounded by digital tools, do consumers as the recipients of technology even have a choice?". This study contends that everything in life (including digital activities) is about choice. And if attention is central to individual cognitive resources, consumers indeed have a choice whether to regain control of our personal and sovereign resources.

IV Sustainable Digital Behavior

Following discussions of digitalization's impact on people's lives and its link with people's wellbeing, this section integrates basic elements of consumer behavior from a rational and psychological perspective to make a case for sustainable digital practices at the individual level. Digital life brings more challenges and choices that consumers must deal with daily, and to some extent, these challenges are more than our cognitive processes can handle. To face these challenges, it is worthwhile to consider the philosophy of technology use leading to sustainable digital practices. For instance, the users of technology can consider the philosophy of sufficiency regarding online activities such as social media services. Sufficiency relates to moderation and reasonableness of intent and action; it calls for individuals to man-

Figure 1: A graphic model of cognitive processes towards sustainable digital behavior

age their cognitive resources and make responsible choices. Effective cognitive processes entail attentiveness, self-care, and intelligence that shape individual intent and action.

Figure 1 illustrates cognitive processes and focuses on key elements towards sustainable digital behavior. These elements include inner motive and, self-care and interest that serve as "filters" and shape intention towards sustainable digital habit. To approach decisions with intention can be more important than the impact of the actual decisions themselves. This model also reflects sufficiency philosophy where individuals carefully select options that lead to purposeful digital activities. Items or information first come into our awareness, and we decide whether to allocate our cognitive resource i.e., to pay attention or otherwise. Note that social norms and other external factors are also important elements of individual choice, but a holistic approach of sustainable digital behavior is beyond the scope of the present

study which merely focuses on the internal forces that shape behavior. This model asserts that individual behavior has a major and cumulative impact on sustainability issues. And there are overlapping spheres of sustainable digital behavior where technologies are used for good. In other words, an individual decision to engage with online technology in a sustainable manner is not only beneficial to his/her wellbeing but also benefits the group to which he/she belongs to（family, friends, co-workers）and the wider world. Whilst technologists, researchers, and policy makers continue to debate on the developments, regulations, and implications of digitalization, conscious approaches or choice towards sustainable digital life are in the hand of consumers.

4.1　Awareness（open attention）

In today's world, our lives consist of offline and online engagements. During the online time, consumers must deal with an overabundance of information and face more choice options and more information about these options. Choice overload becomes a difficult challenge and is a continuous struggle. None of us has enough mental capacity to consume all the information out there. The issue is which part of the information are we processing and how do we determine what information or items get selected. This is a difficult task and a daily struggle even for professionals. Our attention can also open up or becoming receptive to what's going on in the surrounding environment or known as open attention. The usefulness yet addictive nature of digital technologies makes open attention problematic in consumer decisions. Consider the basic elements of cognitive processes that include Attention → Intention →Action of our decision. What if there is a shield or attention filter between open attention（or awareness）and action that helps to select the types of information to process or ignore？Furthermore, digitalization has enabled everything to be connected to everything else in our business and personal lives. For instance, the more time we spend online, the more items or information comes into our awareness. Although consumers can be aware and notice many items or information during their online activities, they can choose not to pay attention to some or all the items or information that comes into awareness. In its simplest sense, attention is about taking possession and control of the mental processes where we choose to ignore or focus on one out of the many items or information. In other words, figure 1 can be seen as a focusing system that helps us to select an item – a person, an event, a sound, a sensation from all the stimuli available out there at any time.

Proposition 1: The more consumers are receptive to online information, it is more likely that their digital activities lead to lower satisfaction both in purchase decision and the quality of the online experience.

4. 2　Intention（focused attention）

Focused attention is about shaping our daily digital activities and perceptions towards items that come into awareness. The classical insight or a belief that 'less is more' is useful when consumers feel overwhelmed and/or lose a sense of control in digital life. As depicted in the middle of figure 1, inner motives and, self-care and interest can serve as filters that lessen the struggles of choice overload and cultivate sustainable digital practices. Inner motives include a desire to learn new knowledge and skills related to individual progress, and to find or share information related to self-care and interest. These elements shape our focused attention and decisions to act are directed at carefully selected digital activities that are beneficial and sustainable over the long run. Although there are various complex personal and social factors that influence consumer intention or motivation, inner motives such as self-care and interest are instinctive human conscience and decision. Motivation explains why people behave in certain ways, what energizes their behavior and what directs their subsequent voluntary action（s）. A broader view of motivation should focus on the reasons that underpin a decision to act in a specific way（Holbrook, 2006）. Moreover, a motive that is driven by internal rewards regarding learning or self-enhancing activities is not only beneficial to the individual but also to the wider world. Thus, the followings are：

Proposition 2: Consumer perceptions of the tangible or intangible "benefits" or "values" attributed to specific digital activities positively influence focused attention and consumer decision.
Proposition 3: Motives that are driven by the instinctive individual need for self-care and interest and cause no harm to others positively contribute to personal and social wellbeing.

In *Sustainability Marketing*, Frank-Martin Belz and Ken Peattie argued that "changing our production and consumption systems cannot be achieved without changing marketing mindsets and practices"（Belz & Peattie, 2012, p. 16）. If marketing for sustainability implicates a re-orientation of all areas of the business model towards sustainability, including new products and services, sustainable consumption of information and communication points to consumer choice and decision making. As decision-making is a complex process influenced by

various psychological, social, and environmental factors, it is crucial to also consider a "context" in which a particular decision is made. From a rational perspective, people tend to make decisions based on the impacts of the anticipated outcomes of those decisions on themselves. People also tend to 'maximize their own benefits' or 'satisfy their own preferences in decision making' (Paavola, 2001). In other words, people make a decision based on their self-interest. According to Middlemiss (2018), rational choice is a model that explains how people act, based on neo-classical economics. Although economists do not claim that 'people are selfish', that is an implication of 'maximizing their own benefits'. Middlemiss also argued that people are not always aware of this assumption because 'the truth' is often presented to explain their choice.

Proposition 4: In the digital environment, the influence of self-care and interest on information (over)consumption is greater than the social norm and other external factors.

4. 3　Action (purposeful digital practices)

Csikszentmihalyi (2019) called for the transformative agenda of consumer research to examine how consumer behavior impacts personal and collective well-being. He argued that consumer actions can be influenced by past destructive habits or new knowledge that help behavioral change towards self-enhancing growth. In other words, sustainable digital behavior can be influenced by inner motives that relate to personal and social improvements. The psychological perspective involves specific thoughts and feelings people have about their decision to act. This view also includes 'values' that reflect a general orientation towards a specific topic of information such as those on social media platforms. Shonin et.al. (2014) noted that the increasing ease at which technology allows and encourages access to social media causes difficulty in moderating its daily usage. Accordingly, excessive use of social networking activities is also associated with maladaptive psychological outcomes such as attention deficit and internet addiction. Self-control has always been an important dimension in every human activity and is also linked to moral conduct. The complexity of the digital environment and the unprecedented multifunctionality of communication tools cause difficulty to effectively regulate digital activities. Moreover, the pace and magnitude of digital technologies push consumers toward fast and non-linear consumption of information and communication that may lead to lower satisfaction and communication experience.

Proposition 5: The lack of self-control concerning digital activities will result in lower satisfaction or negative emotions.

Consumers don't really contemplate the alternatives of specific behaviors because they are deeply ingrained（see Verplanken, 2011）. In the digital environment, various different activities can be converged in the same device leading to multitasking and easiness to shift from one focus to another. Online interactions through social media platforms are considered a social norm and a necessity for digital life. People tend not to be concerned with the "what" and "why" issues concerning embedded activities that are widely practiced. Moreover, the overabundance of possible choices can be linked to the economic exploitation of human attention and poses a great challenge for consumer decisions and the ability to 'self-regulate' digital activities and cultivate sustainable habits. Habit is a routine or involuntary action that is done with little or no conscious thought. In this respect, sustainable habits are routines that are beneficial for personal and social wellbeing. Thus, a change of habit is a critical component of sustainable consumer behavior. In this respect, digital skills such as strategically selecting contacts and information channels to follow and the ability to distinguish between 'real needs' and 'mere wants" of information and communication activities are considered as sustainable digital skills. Although the definition of 'need' and 'want' are universal, what constitute needs and wants for individuals vary. Consumers are to make a clear distinction between the two concepts based on their attention filter i.e., inner motives and conscious judgment.

Proposition 6: Consumers' ability to self-regulate digital activities is positively linked to the sustainable digital habit.

To some extent, figure 1 also serves as an introspective mechanism to reflect on our daily digital activities and make the necessary changes to break bad habits concerning digital life and beyond. It highlights the significance of inner motive, self-care and interest, and self-regulation towards developing sustainable habits. The intrusiveness and pervasiveness of digitalization necessitate an attention filter that can shape consumer choice and decision, and lead to sustainable digital life. Figure 1 is intended to be uncomplicated yet useful for all consumers especially the heavy users of social media and/or consumers who spend most of their waking hours online. It is high time for consumers to regain control of their attention, prioritize long-term goals over short-term ones and recognize the consequences of mindless online activities. The present discussions of cognitive processes and the importance of atten-

tion filters aim to engage the users of technology to reflect on their relationships with digital tools and consider whether these relationships are sustainable over the long term. In a world of distractions and overabundance of information, it is crucial to take control of the cognitive resource, develop digital skills and self-mastery. The latter includes self-regulation and the ability to control one's desires or impulses. Thus, a final proposition is:

Proposition 7: Digital literacy and self-mastery positively contribute to individual and collective ability to survive and thrive in a digital world.

V Conclusions

This study briefly discusses the impact of digitalization on consumer choice and wellbeing in a world of an overabundance of information and options from the perspective of human sustainability that aims at improving the quality of our digital life. While most discussions on sustainability are mostly targeted at policymakers, industries, and businesses, this study is targeted at consumers. The behaviors of individual users concerning digital tools have a major and cumulative impact on SDG 12 "responsible production and consumption". In this study, I contend that sustainable digital behavior is about incorporating an "attention filter" into our cognitive processes where individuals carefully select digital activities that support their goals and wellbeing. In other words, we should make good choices about digital activities that matter and unburdening ourselves from the activities that don't. In this respect, a practicable model that relates to sustainable practices or habit is useful to shape our choice and decision in digital life and beyond. This study also contends that sustainable digital behavior requires critical views regarding the use of technology and to regain control of our cognitive resources. In doing so, it underlines the role of consumers in shaping their digital lives for good, and at the same time contributes to sustainability debates.

Consumer behavior is a complex field of study that involves interdisciplinary perspectives. It is even more challenging when it concerns a change of behavior regarding a pertinent aspect of our life such as digital activities. In a broader sense, our digital life is also shaped by external forces in the economic and social environment (such as the impact of coronavirus pandemic, technological progress, companies' strategic maneuvers, etc.), and these forces are beyond consumer power. In a world surrounded by digital tools, billions of sensors, and smart devices, one may wonder if users as the recipients of technology even have a choice.

If we believe that everything in life is about choice, we can continue to be (cautiously) optimistic. This study explores the internal forces of decision-making in which consumers have the power to act and to focus on key drivers of behavioral change towards a sustainable digital life. The ever more pervasive and persuasive technology is a reality now from which there is no retreat. It is high time for consumers particularly digital natives to develop necessary skills and be in control of individual cognitive resources in a way that supports their goals and wellbeing. In today's world, digital skills and self-mastery are not optional but they are necessary to survive and thrive.

To a certain extent, this study also serves as a deliberate response to the increasing challenges of the attention economy that dominates our digital life. It promotes sustainable digital behavior and proposes a model that is practicable to all consumers. Individual behavior is often contextual and a consequence of complex and interconnected forces. Differences and similarities of behaviors can be observed within and across generations of consumers. Although this study is intended for digital natives, it does not assume that digital natives are homogeneous or monolithically the same in the way they use technology. The main goal here is to engage consumers such as the heavy users of technology to rethink their relationships with digital tools and consider whether these relationships are sustainable in the long run. Discussions in this study are also presented fairly straightforward to reach digital natives and public audiences. A mindful approach to all aspects of life enhances our wellbeing and the purposeful act of digital activities allow us not only to regain control of our cognitive resources but also to develop sustainable habits crucial for personal growth and empowerment.

Finally, this study attempts to make a case for sustainable digital behavior at an individual level. It contends that each individual has the ability to improve the quality of digital life and contribute to SDG 12 i.e., "responsible production and consumption" concerning online information. If we want to change the world, we need to first understand how it works, and if we want to change our digital behavior or habit, we should first understand cognitive processes and recognize the structural factors of the digital environment that are beneficial and detrimental to individual and collective wellbeing. Future research should include discussions of various other aspects of consumer choice and decision process from rational, psychological or other perspectives. Further inquiry regarding consumer choice and sustainable digital life can also examine propositions in this study and/or provide details of each element that influence cognitive processes and consumer decision. Although the model of cognitive processes discussed in this study merely focuses on digital life, it emphasizes the basic aspects of be-

havior i.e., intent and action ; thus, it can be extended and adapted in various contexts of sustainable consumption.

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