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Jia Shen
Rider University, jiashen@rider.edu

Luca Iandoli
St. John's University, iandolil@stjohns.edu

Miguel Aguirre-Urreta
Florida International University, miaguirr@fiu.edu

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Jia Shen, Ph.D.

Department of Information Systems, Analytics, and Supply Chain Management

Norm Brodsky College of Business

Rider University

jiashen@rider.edu

Luca Iandoli, Ph.D.

Division of Computer Science, Mathematics and Science

The Lesley H. and William L. Collins College of Professional Studies

St. John's University

iandolil@stjohns.edu

Miguel Aguirre-Urreta, Ph.D.

Department of Information Systems and Business Analytics

College of Business

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Transactions on Human-Computer Interaction

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Department of Information Systems and Business Analytics

College of Business

Florida International University

Abstract:

As digital technology use becomes widespread, its unintended consequences ranging from personal health to societal righteousness are under more scrutiny. Increasingly, digital designers are accused of not being considerate enough of the depth of their creations, and their impacts on our well-being. In this special issue, we explore an alternative, genuinely human-centered approach to technology design focusing on well-being and making our interactions with digital technology more meaningful, purposeful, and sustainable. To this end, the editorial starts with a brief review of the history of research that led to the growing field of digital well-being. We then introduce the Digital Well-being Design Framework, which goes beyond the ego-centric approach in human-centered design, and is multi-layered with self (intrapersonal), social (interpersonal), and transcendent (extra-personal) levels. Similar topics in related AIS journals are summarized, followed by the application of our framework to introduce and position the papers in this special issue. Our special issue aims to bring the topic of digital well-being to the forefront of the information systems research community and launch a new era of genuinely human-centered design.

Keywords: Digital Well-being, Design Framework, Positive Computing, Human-centered Design

Fiona Nah was the accepting senior editor for this paper.

1   Introduction

Negative impacts and unintended dysfunctions of Information Systems (IS) design are increasingly under scrutiny, especially after the advent and popularity of open and collaborative online systems and social media (Auxier, 2020). Some examples include social media's tendency to enable the diffusion of fake news and conspiracy theories (Vicario et al., 2019), the manipulating of voters' choices as in the Cambridge Analytica scandal, or amplifying political polarization in online discourse (Settle, 2018; Yarchi et al., 2021).

IS designers are often accused of not being considerate enough of the depth and consequences of the platforms they create, and of prioritizing functional or marketing objectives while neglecting users' well-being and critical ethical consequences of their design. However, as our professional and personal lives become more virtual, our well-being increasingly depends on the design of the digital tools we use. The Covid-19 pandemic only accelerated and made these trends even more visible.

This special issue explores an alternative, genuinely human-centered approach to IS design which focuses on improving individual and social well-being and making our interaction with digital technology more meaningful, purposeful, and sustainable. More specifically, in this special issue, we included studies that adopt approaches aimed at assessing the impact of IS design on users to help designers to anticipate potential problems and/or create solutions that are not only not harmful but that also deliberately support and promote individual well-being and societal gains.

2   Digital Well-Being

Interest in research on happiness and well-being has been growing in recent years, partly due to the observation that while science and technological advances in the last few hundred years have created material abundance and lifted the living standards worldwide, humans have not become significantly happier compared to previous generations. From the World Happiness report by the United Nations (2022), spearheaded by the US, now in its 10th edition in 2022, to high-level initiatives such as "Beyond GDP" led by the European Commission (2022), it is clear the world is searching for more than material goods and affluence.

Meanwhile, digital technology is increasingly and deeply embedded into all aspects of our modern lives. Not only does it enable us to work, play, and communicate, but it also can shape the way we think, behave, and interact with each other. Like material abundance, once we achieve certain levels of productivity and connectivity with the help of digital technologies, our happiness not only plateaus but, in many cases, starts to suffer from interaction with digital devices. Smartphone addiction (Abhari & Vaghefi, 2022; Wacks & Weinstein, 2021), social media-induced mental issues (Bouygues, 2021), and the feeling that we are increasingly losing control of our digital experiences (Fioravanti et al., 2021), have all led to increasing public outcry for more oversight on technology companies.

These trends have accelerated amid the global Covid-19 pandemic since its outbreak in early 2020, including the time of preparation for this Special Issue, in the summer of 2022. For example, travel, dining, and demands for other experiential-based products are soaring, much more than material products, as soon as Covid-related restrictions were lifted in various parts of the world. Meanwhile, isolation, depression, anxiety, and other mental illnesses were all reported as exacerbated by the constant use of digital technology during the period of social distancing for remote work, study, and connectivity (Browning et al., 2021).

As IS researchers, we believe that society and our field have advanced to the point when it is time for us to aim for the ultimate ground in human experience and design for well-being. A review of the concept of well-being from multiple disciplines, including psychology, cognition, economics, and mind science, narrows down its meaning to "optimal human function" and "flourishing" (Seligman & Csikszentmihalyi, 2000). The academic study of well-being may be traced to the development of Positive Psychology, a paradigm proposed by the psychologist Martin Seligman. He argued that psychology had restricted itself for too long to researching and treating mental problems and that it was time to focus on what makes life worth living, i.e., positive emotions and human flourishing (Seligman & Csikszentmihalyi, 2000). Three paradigms exist in the study of well-being:

- Medical: well-being as the absence of dysfunction.
- Hedonic psychology: well-being as the experience of sensory pleasure and positive emotions; and

- Eudemonic psychology: well-being as engagement with meaning, living a life of virtue, and fulfilling human potential.

Within the context of Positive Psychology, research on well-being and technology appeared a decade later, under the terms of Positive Computing (Sander, 2011) and Positive Technologies (Riva & Banos, 2012). Sander introduced the term Positive Computing as a call to meet Seligman's challenge of 51 percent of the population flourishing by 2051 (Sander, 2011); and work by Riva & Banos (2012) in cyberpsychology pioneered research on using VR and AR tools for psychotherapy and supporting interventions for physical and mental health.

Research conducted under Positive Design (Desmet & Pohlmeyer, 2013) and Positive Computing (Calvo & Peters, 2017) focus on making well-being explicit goals for technology design. The main objective of Positive Design is in supporting human flourishing. The Positive Design Framework identifies areas of design based on three well-established tenets in positive psychology and philology, including:

- Design for pleasure: experience positive effect（"Am I enjoying myself?"）
- Design for personal significance: pursuing personal goals（"Am I achieving something?"）
- Design for virtue: being a morally good person（"Am I behaving honorably?"）

Positive Design aims to achieve a long-term impact in people's lives by enabling them to flourish and to find a balance between pleasure and meaning, short- and long-term goals, and individual and social concerns. Pohlmeyer (2013) further developed a Design Well-Being Matrix to illustrate the diversity of possibilities to design by considering a range of roles that design can play (source, symbol, enablement, support) and a variety of well-being components (such as the PERMA framework - Positive Emotion, Engagement, Relationships, Meaning, and Accomplishments).

Calvo and his colleagues expanded earlier work on Positive Computing to the design and development of digital technology to support psychological well-being and human potential (Calvo & Peters, 2017). Grounded in psychological well-being research and multidisciplinary foundations, Calvo and Peters proposed a positive computing framework identifying circumstantial conditions that influence well-being and determinant factors that can be cultivated to increase well-being. They further identified design factors frequently mediated by technology, including positive emotions, motivation, engagement, self-awareness, mindfulness, resilience, gratitude, empathy, compassion, and altruism. These factors point out areas where technology-mediated design can significantly impact human well-being.

Common to both Positive Design and Positive Computing are the goals of supporting subjective and psychological well-being and enabling human flourishing. While these goals have not been the traditional focus of HCI research, a few advocates have put users' psychological states on the research agenda for some time, such as work on Emotional Design (Norman, 2004) and Affective Computing (Picard, 1997). More noticeably, research on Experience Design (Hassenzahl, 2010) lends itself to well-being studies from holistic and human-centered lenses. Ten years after the psychology paradigm shift to Positive Psychology in 2000, Marc Hassenzahl appealed to the Human-Computer Interaction (HCI) community to move beyond the "disease model" of human-technology-use that mainly focused on removing usability problems and frustrations because "avoiding the bad experience due to a lack of instrumentality does not necessarily equate with providing a positive experience" (Hassenzahl, 2010). He argues that instrumentality addresses the "how" (motor) and "what" (behavior) aspects of interaction and is not concerned with the "why" (purpose) aspect of interaction in fulfilling human needs. This new level is where technology design has the potential to create profound and worthwhile experiences. Design Thinking (Brown & Katz, 2011) echoes similar goals in the business and consulting industries. Together, these approaches put user experience at the same level as system functionality and business viability to explore "what matters to humans" and "what it needs to make technology more meaningful" (Hassenzahl, 2010).

The explicit focus on well-being marks a distinctive shift from the technology to the human side for truly human-centered design. From its early days focusing on usability engineering, the HCI community has progressed from disease-based to strength-based models. Now is the time for the HCI research community to further shift from technology-driven design towards a genuinely human-centered design approach with explicit goals of designing digital experiences to enable human flourishing, i.e., digital well-being. We refer to digital well-being as technology designed to explicitly promote psychological flourishing and innovation for net social gain. Some broad-stroke research questions in this new area of digital well-being include:

- What **mindset** is required to create computing technologies that facilitate attitudinal and behavioral change over time?
- What **theoretical foundations** are needed for creating digital technologies that promote well-being, behavioral change, and innovation?
- What are the **methodologies** for design to create technologies that promote well-being, enhance positive behavioral change, and facilitate innovation?
- How do we **measure** success?

Next, we discuss our initial work on developing a framework to study digital well-being and summarize the papers in this special issue.

3 A Design Framework for Digitally-enabled Individual and Social Well-being

In this section, we present a framework to support design for digital well-being and use the framework to introduce and position the papers accepted for this special issue. The following considerations drove the development of the proposed framework:

1. A criticism of the dominant perspective in which well-being is primarily seen as digital tools' ability to boost individual performance and entitlement (ego augmentation). In our framework, we adopt a perspective in which well-being is primarily the consequence of doing good (as opposed to feeling good).
2. The consequences of a design should have priority over functional and economic considerations. Attention should be paid to the propagation of these consequences beyond the intrapersonal level, i.e., the relationship between the user and a tool, and to how they propagate to affect immediate and distant others (interpersonal level) and society and the environment (transcendent).
3. The mapping of design theories and toolboxes can help increase users' well-being at each level (intrapersonal, interpersonal, and transcendent).

3.1 Feeling Good vs. Doing Good

A brief history of the "user friendly" design paradigm can help us understand how designing to boost individual performance undermined the pursuit of well-being (Kuang & Fabricant, 2019). This bias could generate the most visible and detrimental consequences in digital design. Partly as a reaction to increasing homologation and conformism introduced by post-war industrial designers to favor mass consumption, the youth revolution in the 60s, especially in the liberal version that flourished in the US starting in and around the University of Berkeley campus, claimed for individual empowerment and contributed, in the digital field, to the birth of the personal computer (Freiberger & Swaine, 1984). The "stay hungry, stay foolish" motto mentioned by Steve Jobs in his commencement speech at Stanford University in 2005 was, in fact, a citation from the Whole Earth Catalog, a magazine popular in the sixties focusing on ecology, alternative education, do-it-yourself, featuring the slogan "access to tools."

The commoditization of computers and the development of interactive technology between the '80s and the '00s made digital tools even more available to unskilled users. Digital technology was often presented as a liberating and positive force for human betterment, mainly thanks to its ability to support distributed production via collaborative commons, democratize access to technology, and support connection to vast and open knowledge networks (Benkler, 2006).

The emergence of a design paradigm based on persuasive technologies (Fogg, 2002) and the diffusion of the smartphone and social media favored a strong tendency toward ego augmentation via hyper-customized user experience. On the one hand, customization was driven by well-intentioned efforts to help individuals navigate the abundant information and complexity of the cyber sphere. On the other hand, digital immersion and ubiquitous access to highly customized information produce many distortions in the current digital sphere. Personalized information helps us to instantiate a subjective reality in which many "subjective truths" are possible and legitimate. Making users unaware of how information is filtered, processed, and distributed creates room for monetizing user experience, but, at the same time, it creates opportunities for hard-to-detect manipulation. In turn, creating a highly personalized information sphere favors the fragmentation of the political discourse and the diffusion of fake news and online misinformation.

Thankfully, as described in the introduction of this paper, the digital design community is becoming increasingly aware of these adverse effects and is developing and adopting more considerate and thoughtful approaches, such as Positive Computing and Design in the creation of digital tools for human betterment.

3.2   Assessing the Impact of the Consequences of a Design

An intuitive way to counteract the excess of ego-augmentation is to rely on design approaches emphasizing the impact of design choices on others and society. The design and use of tools that not only help individuals to perform better but also make them mindful and capable of originating positive impact on other people and the environment favor the achievement of higher and more meaningful levels of well-being beyond the medical and hedonic levels of users' satisfaction. Approaches such as Inclusive and Universal Design provide valuable guidelines in this respect. Following a definition proposed by the British Standards Institute (Coleman & Lebbon, 1999), inclusive design is the design of mainstream products and services accessible to and usable by as many people as reasonably possible.

First, by focusing on impairments, inclusive design is exceptionally positioned to inspire solutions that are natively mindful of users' abilities and able to stretch the reach of a product as much as possible beyond the initial target. For instance, by removing certain features that may hinder access to specific categories of users, inclusive designers also investigate the consequences of such removal on other groups of users.

Second, inclusive design can help spur innovation while considering the needs of specific categories of users. For instance, while helping readers with visual impairment, audiobooks also provide opportunities for alternative book fruitions for users who do not have issues with their eyesight. By making a city more accessible to people with different types of limitations, chances are that cities become easier to navigate and more enjoyable for users who do not have physical impairments. Inclusivity and universality naturally push designers to analyze the propagation of the consequences of design choices more deeply beyond the individual target users.

3.3   A Design Framework for Digital Well-being

In our framework, we combine positive and inclusive design with ideas on the role of technological artifacts in human and cultural development, based on the artificial envelope proposed by Andre' Leroi-Gourhan (1964), to overcome negative consequences due to ego-augmentation in the development of computing solutions.

The proposed approach aims at rebalancing the focus on individuals with attention to the impact of the design on the action space in which users are physically and socially located. We define the action space as the physical and social space where the consequences of using a design can be felt. Following research in positive computing, the action space extends beyond the immediate execution of a task across three levels (Table 1):

- The Self (intrapersonal)
- The Social (interpersonal)
- The Transcendent (extra-personal)

The framework identifies a non-exhaustive list of design factors for each level. The intrapersonal factors are primarily experienced within oneself (e.g., competence, self-awareness). The traditional categories of usability and ergonomics belong to this level since a design must decently execute a task in a way that is not harmful to its users. However, the impact on the individual extends beyond these categories to include cognitive factors such as fluent information processing (Reber et al., 2004) and emotions (Damasio, 2021).

At the interpersonal level, factors are associated with the interaction between oneself and others (i.e., relatedness, empathy, trust, and social status). This level also includes the impact of economic transactions generating acquisition or loss of economic value.

The transcendent level includes factors involving impact on the greater good and for beings beyond those we know personally (i.e., social responsibility, compassion). We include in this level ethical considerations and the impact on the environment. The transcendent level suffers more than the others from the dearth of design methodologies that deliberately analyze such higher-level impact. However, Inclusive Design and green approaches to economy and production are becoming increasingly popular.

Table 1. Digital Well-being Design Framework

Needs Levels	Factors to design for	Design theories and toolboxes
Transcendent (Extra-personal)	• Altruism • Compassion • Ethics • Environment • Societal Good • …	Proposed Digital Well-being Design Framework Inclusive Design Universal Design Zero-waste/Circular Economy
Social (Interpersonal)	• Relatedness • Identity • Empathy • Trust • Cultural compatibility • Status • Economic value (transactions) • …	Positive Design
		Design Thinking Experience Design Business Model Design Customer discovery
		HCI
Self (Intrapersonal)	• Fluency • Aesthetics • Emotions • Self-awareness • Competence • Autonomy • …	
	• Ergonomic • Usability	Usability Engineering

4 The Special Issue

This special issue complements others recently published on similar topics at *AIS Transactions on Human-Computer Interaction* and other relevant journals. The special issue on digital well-being in the age of mobile, which appeared in *Mobile Media & Communication* (Vanden Abeele & Nguyen, 2002), focused on the benefits afforded and burdens placed on modern society by the emergence of ubiquitous mobile connectivity, relating the concept of digital well-being to how people perceive and experience these benefits and burdens. Two key themes from this special issue are the conceptual connections between digital well-being, on the one hand, and digital disconnection, on the other, as well as distinguishing between digital well-being as a psychological condition or a cultural artifact. Articles published in this special issue focused on digital detox, digital (un)wellness, the impact of mobile media demands on well-being and procrastination, and the understanding of technological resistance in the form of mobile phone refusing.

Another special issue of relevance appeared in 2015 in *AIS Transactions on Human-Computer Interaction* (Wilson & Djasmabi, 2015), focusing on the intersection between Human-Computer Interaction and Health and Wellness research. The editors of the special issue proposed a human-technology innovation framework which they then used to categorize the special issue submissions and identify gaps in past HCI-related publications. Five articles in their special issue focused on ways technology can be deployed to intentionally affect health behaviors, such as persuasive design and health-related behavior change relating to weight management (Lehto & Oinas-Kukkonen, 2015) and depression (Kuonanoja et al., 2015). These

papers complement well a focus on our special issue on the role of ethics in designing persuasive technology.

A similar concern is present in the special issue on digital behavioral technologies, vulnerability, and justice, which appeared in the *Review of Social Economy* (Herzog et al., 2022). The focus of this special issue is on the consideration of clinical technologies and health-oriented devices, particularly those targeted at consumers, from a societal perspective, with particular emphasis on vulnerability, inequalities, and injustices. Articles appearing in this special issue focused on self-empowerment through technology, consent and discrimination in algorithms, online manipulation, and ethics in algorithms (which also connects nicely with a focus on ethics and persuasive design in our special issue). Finally, an upcoming special issue in the *International Journal of Human-Computer Studies* (Roffarello et al., forthcoming) will focus on digital self-control tools to improve digital well-being in the context of multiple (overlapping) use of digital devices.

4.1 How the Special Issue Came About

This Special Issue on Digital Well-being has its genesis in a collaboration between track and mini-track chairs from two different tracks of the *Americas Conference on Information Systems* (AMCIS 2021) Virtual Conference (originally scheduled to be held in Montreal, Canada and eventually held online due to the Covid-19 pandemic). The articles included in this special issue originated in either the Cognitive Research in IS track (sponsored by SIG CORE and represented by Jia Shen as co-track chair and Luca Iandoli as co-mini-track chair of the Human-Centered IS Design mini-track) or the Human-Computer Interaction track (sponsored by SIGHCI and represented by Miguel Aguirre-Urreta as co-track chair). From these two tracks, seven different conference submissions, which had both received very positive reviews and were related to the topic of the special issue, were selected and invited to submit to this special issue. These submissions then underwent two additional rounds of review through the journal, with the three representatives of the conference tracks serving as joint senior editors. One of the invited submissions was withdrawn from the process as it became evident that the work needed to address the issues raised by the reviewers would not be feasible within the timeline proposed for the special issue. In contrast, a second submission was rejected and removed from the process. Due to the review process, the remaining five submissions were developed and extended from the original conference versions and are now included in this Special Issue on Digital Well-being published by *AIS Transactions on Human-Computer Interaction*. Of these, three originated in the Cognitive Research in IS track and the other two in the Human-Computer Interaction track.

4.2 Summary of Papers in this Special Issue

In the article titled **"Design Principles for Personalized Assistance Systems that Respect Privacy" by Voss, Bosak, Hoebertz, Mohsenzadeh, Schnebbe, Poeppelbuss & Eisenbeiss (2022)**, the authors investigated digital well-being from the privacy perspective in the context of assistance systems, i.e., interactive technology that connects humans and machines. The authors took a multi-method approach in developing seven design principles for employee-determined data collection and use in personalized assistance systems, considering the data protection laws and the employee perspectives. The detailed steps in conducting a multi-method study, including a combination of personas, a focus group, and an expert panel, provide an excellent example of applying User-Centered Design in this context. As information systems and particularly design researchers, we sometimes fall short of turning our research into practical guidance for industry. The findings from this paper yield practical relevance by providing a novel framework for designers. The research approach in considering actual users and legal requirements also serves as an example of approaching emerging technology design from truly human-centered design and legal perspectives.

In the paper titled **"The Role of the Privacy Calculus and the Privacy Paradox in the Acceptance of Wearables for Health and Wellbeing" by Jernejcic & El-Gayar (2022)**, the authors explored digital well-being in the use of wearable devices in healthcare and the role of privacy. The focus on healthcare wearables, which differ from personal or general wearables, offers unique characteristics and distinctive features where the study of privacy is more nuanced. The author's approach in examining the multi-dimensional role privacy plays in users' decision-making process, drawing upon research on privacy, especially privacy calculus and privacy paradox in the healthcare industry, led to a research model which was empirically tested. Considering the wide use of wearable devices and their potential to contribute to our health and well-being, this comprehensive evaluation of privacy in healthcare settings is relevant to researchers and practitioners in designing digital well-being.

In their work titled **"Developing an Inclusive Educational Game Using a Design Science Research Gestalt Method," Bond, Metha, and Sunkar (2022)** used Design Science Research and Gestalt psychology to develop and test an inclusive educational game to reduce the gender gap in technology-related academic programs. The authors show how DSR methodology can help designers develop digital tools that meet motivational and learning needs for the targeted student population. The authors present in detail both the design and test methodology so that the proposed approach can be generalized and adapted to other digital design applications beyond the case of educational games. Their work also has the merit of showing how human-centric and well-being-driven digital design can be a tool to address learning inequalities and promote more inclusive pedagogy to reduce disparity in access to technology education.

In the article **"How to Achieve Ethical Persuasive Design: A Review and Theoretical Propositions for Information Systems," Benner, Schöbel, Janson, and Leimeister (2022)** explored ethical considerations present in Persuasive System Design (PSD) practices. While the goal of PSD practices is to improve engagement and motivation with a task, and effect changes in attitudes and behaviors through the design of the technology, with mechanisms such as gamification or nudging, ethical questions underlying these design approaches have not been extensively raised or discussed. While PSD studies and publications have generally focused on the positive outcomes achieved by these approaches, such as adhering to exercise plans, improving health behaviors, or increasing saving rates in personal finance, it is also the case that the same approaches and mechanisms have the potential to be deployed in ways which are harmful or counterproductive for the individuals involved. To better understand the importance and the role of ethical considerations in PSD practices, the authors conducted an extensive review and synthesis of the literature in this area, as well as a set of in-depth interviews with application users, focusing on expectations, motivation, and privacy and security considerations, among others. Comparing the literature review and interview study reveals some overlap between issues considered and discussed in the literature and those raised by interview participants, but also some crucial differences. Of note, interview participants report an increased awareness of the possibility for persuasion through their interactions with technology and a perceived loss of autonomy and freedom of choice. The research concludes with a set of six propositions for PSD to guide the future development and implementation of technologies that pay careful attention to ethical considerations.

The article **"Designing Process-based Chatbots in Enterprises: The Case of Business Travel Organization Considering the Users' Perspective and Business Value" by Meyer von Wolff, Hobert, and Schumann (2022)** considers the application of a pervasive technology – the chatbot – in the context of enterprise applications and processes, with a particular focus on the processing of business travel. Following a design science approach, the authors first deduced a set of design principles relevant to the development and implementation of process-support chatbots and then implemented a software artifact based on these principles. The technology was then examined through an experiment that included a comparison of the new chatbot with the existing business process and a survey that examined the design and acceptance of the developed chatbot. This research contributes to our understanding of chatbots and their role in business process applications (as opposed to their more familiar role as a customer-facing technology) in three ways. First, the authors identify a set of six design principles for the design and development of process-oriented chatbots and show how designs based on those principles are suitable for supporting the chosen business process (and, more generally, could be applied to other digital processes in the workplace). Second, the authors showed that users were favorably disposed towards chatbots in the context of business processes, enjoying high acceptance and perceptions of usability, validating the potential for the technology as a supplement to existing business processes. Finally, the authors provided evidence of learning in the usage of chatbots and how those can eventually lead to faster cycle times than the traditional (e.g., non-chatbot-supported) business process, as well as a marked reduction in the danger of committing critical errors when chatbots were employed. Taken together, this research shows clear potential for sound and thoughtfully designed chatbot technology to play a role in support of business-oriented processes.

The framework described in Table 1 can be used to introduce and position the papers accepted in this issue on designing for digital well-being, as summarized in Table 2.

Table 2. Research Topics and Themes on Designing for Digital Well-being in this Special Issue

Article	Research themes and topics in digital design
Privacy Control in Personalized Assistance Systems: Design Principles for Employee-Determined Data Collection and Use	Privacy as a reflection of self-awareness, as a mechanism to protect individual safety (Intra-personal) Privacy as a device to manifest (or protect identity), Privacy and trust (Inter-personal)
The Role of the Privacy Calculus and the Privacy Paradox in the Acceptance of Wearables for Health and Wellbeing	
Developing an Inclusive Educational Game Using a Design Science Research Gestalt Method	Competence, learning, and personal development (Intrapersonal) Inclusive education, diversity, minorities' access to technology-related academic programs (Transcendent)
How to Achieve Ethical Persuasive Design: A Review and Theoretical Propositions for Information Systems	Persuasive design impact on autonomy, self-awareness, mindfulness, critical thinking, self-indulgence (Intrapersonal) Ethics in persuasive systems design, digital nudging (Transcendent)
Designing Process-based Chatbots in Enterprises: The Case of Business Travel Organization Considering the Users' Perspective and Business Value	Digital design supporting technology/business alignment (Inter-personal)

In summary, this editorial provided a short history of Digital Well-being and related research, and a proposed Design Framework for Digital Well-being. We also showed how this initial framework could be applied using the papers included in this special issue, and discussed areas for future research. Some initial work has begun (e.g., Roffarello & De Russis, 2019; Lukoff, 2019, Iandoli & Shen, 2021; Shen & Iandoli, 2021). Our special issue hopes to bring the topic of digital well-being to the forefront of the IS research community and launch a new era of genuinely human-centered design for well-being and flourishing.

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About the Authors

Jia Shen is a Professor of Information Systems in the Norm Brodsky College of Business at Rider University. Her research is in the areas of Human Computer Interactions, design and innovation, and digital strategies. She has also conducted research in social commerce, virtual world systems, and online learning. Her work has been published in journals such as the International *Journal of Technology and Human Interaction*, *International Journal of Information Management*, *International Journal of Electronic Business*, *IEEE Transactions on Professional Communication*, *IEEE Transactions on Systems, Man, and Cybernetics*, and *Journal of Electronic Commerce Research*. She is the Founder and currently Co-Chair of the Information Systems Advisory Council at Rider University. She was the President of the AIS (Association for Information Systems) Special Interest Group IS-CORE (Cognitive Research) in 2020-2021, and regularly serves as the track chair at international conferences of Information Systems. Jia holds a Ph.D. in Information Systems from the New Jersey Institute of Technology (NJIT), a M.S. in Information Systems from NJIT, and a B.S. in Computer Science and Engineering from the Beijing University of Technology. Previously she had work experiences at AT&T Research Labs and IBM China.

Luca Iandoli is the Interim Dean of the Collins College of Professional Studies at St. John's University and a Professor in the Division of Computer Science, Mathematics, and Science. He has served as an Associate Professor at the University of Naples Federico II (Italy) and as Visiting Research Professor at Stevens Institute of Technology. He was a Fulbright Visiting Scholar at the Center for Collective Intelligence of the Massachusetts Institute of Technology. His research focuses on online collective intelligence, interface aesthetics, and design-driven entrepreneurship. Luca has served as President of the European Council for Small Business and entrepreneurship and the International Council for Small Business. He is the founder and director of the St. John's University Design Factory, an interdisciplinary product design and learning center to develop a culture and pedagogy of passion-based learning and support students' creativity and entrepreneurship.

Miguel I. Aguirre-Urreta is an Associate professor in the Department of Information Systems and Business Analytics, College of Business, at Florida International University, and the Director of Doctoral Programs for the College. Before joining FIU, he was on the faculty at Texas Tech University and DePaul University. Miguel received his Ph.D. in Information Systems from the University of Kansas, and his MBA in Information Systems and Finance from the Kelley School of Business at Indiana University. His undergraduate degree is in public accounting from the Universidad de Buenos Aires, in Argentina. Miguel is interested in quantitative research methods, computer self-efficacy, human–computer interaction, technology acceptance and diffusion, and formal modeling and theory development. He is also a past chair of the *AIS Special Interest Group on Human-Computer Interaction*. His research has appeared or is forthcoming at *MIS Quarterly*, *Information Systems Research*, *Psychological Methods*, *Communications of the Association for Information Systems*, *Research Synthesis Methods*, *IEEE Software*, *Measurement*, and *The DATA BASE for Advances in Information Systems*, among others.