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Teachers' Views on Digital Distraction

Ece GÜNGÖR*
Computer Education & Instructional Technologies Education Master Programme Anadolu University, Eskişehir, Türkiye
ORCID: 0009-0006-3089-0616

Adile Aşkım KURT
Computer Education & Instructional Technologies Education, Anadolu University, Eskişehir, Türkiye
ORCID: 0000-0003-1084-5579

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The aim of this study is to find out teachers' views on digital distraction. The sub-objectives of the study are to find out whether teachers experience digital distraction, in which environments they experience digital distraction, what they feel when they experience digital distraction and what precautions they take against digital distraction. The participants of the research, which was designated adopting with a phenomenological design, were a total of 81 teachers. As a result of content analysis, the reasons for encountering digital distraction were listed as advertising, latest news, alerts, the large amount of content on the Internet, being asked to look at a social media account, look at other studies when doing research, and other videos suggestions while watching a video interest/curiosity and boredom. The environments in which teachers experience digital distraction are social media, conducting research, social environment, shopping websites, work life and leisure time. The reasons for experiencing digital distraction in these environments include interest/curiosity, advertisements, notifications, boredom, news and the huge amount of content on the internet. Teachers experience negative emotions such as anger, sadness, and regret when they experience digital distraction. Teachers reported feeling happy because they were learning new information, they felt relaxed because they were moving away from the subject and resting, and happy because they were looking at things they were curious about. The precautions taken by teachers are self-control, turning off notifications, limiting the time spent digitally, taking the phone/computer away, not opening/closing too many tabs and installing ad/cookie blocker software.

Introduction

The spread of information and communication technologies provides important conveniences such as easy access to information, communication and the exchange of ideas, as well as online shopping. In addition, the use of digital devices (smartphones, laptops, tablets, etc.) in the educational environment makes education more effective, while their use in the

* Correspondency: ecegungor@anadolu.edu.tr

workplace increases employee productivity. However, in spite of the convenience of using these devices, there are also a number of negative effects. These negative effects include unrestricted and aimless use of the Internet, distraction from work and education by online activities, and disruption of daily responsibilities. Digital distraction is a common feature of almost every environment in which people work. It is seen as a source of concern both in the workplace and in educational settings. Digital distraction is defined as "a state of being distracted by electronic devices and media that interferes with concentrating on the primary task" (Agrawal, Sahana, and De, 2017). Digital distraction refers to the phenomenon where individuals are distracted, unfocused or interrupted by the use of digital devices such as smartphones, computers or tablets (Pérez-Juárez et al., 2023). Farivar, Esmaeelinezhad and Richardson (2022), defined digital distraction as activities that divert the individuals' attention from the primary task and temporarily interrupt task performance. Digital distraction refers to the intrusion of digital devices into our lives, leading to reduced productivity, negative impacts on our mental and emotional health, and even physical consequences (Keer, 2023). Individuals' digital distraction activities tend to be unplanned, without full consideration of the consequences; in other words, they are automatic and spontaneous rather than fully rational and planned (Chen, Nath and Tang, 2020). Examples of digital distractions include browsing social media, checking the news, texting with friends and family and engaging in non-work-related online activities at work (Jarrahi, Blyth, and Goray, 2023). It occurs when individuals engage with digital technologies in a way that interferes with their ability to focus on tasks, interact with others, or be present in the moment. The elements that lead to digital distraction can occur in a variety of ways, such as notifications from social media applications, incoming e-mails, text messages, or the desire to browse the internet for non-essential purposes (Pérez-Juárez et al., 2023). Based on these examples, it can be said that there are two types of digital distraction: distraction to digital environments and distraction in digital environments. Distraction to digital environment which refers to the situation where people who are not using a digital device are exposed to digital distraction through various methods such as alerts, signals, flashing lights, interesting and eye-catching device designs. Distraction in digital environments is the situation where individuals interacting with a business using a digital device are exposed to digital distractions on digital media through various methods such as on-screen designs, visuals and pop-ups (Kurt et al., 2021).

Digital distraction is preventing people from being productive at work because of the easily accessible and entertaining content available (Mark, 2015 cited in Jarrahi, Blyth, and Goray, 2023). As reported in the literature, more than 75% of university students report that they regularly use their mobile phones during class time to send text messages, browse the Internet, check social media, and engage in other extracurricular activities. University students, for example, are likely to send and receive around two dozen text messages during a typical class period (Dietz and Henrich, 2014; Pettijohn et al., 2015). Extracurricular mobile phone use during class time occurs approximately every five minutes for many university students resulting in students spending approximately 30% of class time using their mobile phones for off-task purposes (McCoy, 2013). The proliferation of digital technologies in modern society has increased the prevalence of digital distraction, making it increasingly difficult for individuals to maintain sustained attention and cognitive engagement (Flanigan and Babchuk, 2022). The Growing Up Digital Australia report highlights that digital technology and media increase students' digital distractions and reduce their ability to focus on learning tasks (Graham and Sahlberg, 2020). The extracurricular use of digital devices affects students' learning processes by distracting their attention during class (Flanigan and Babchuk, 2015; Spence et al., 2020) and by reducing the quality of students' course grades. Students who use their mobile devices for extracurricular purposes, i.e. students who experience digital distraction, record

approximately 30% fewer course-related opinions in their grades than their peers who do not experience digital distraction (Flanigan and Titsworth, 2020; Kuznekoff et al., 2015; Kuznekoff and Titsworth, 2013). Therefore, not only does digital distraction affect students' learning processes in class, but also it can also negatively affect students' work outside of class by reducing both the quantity and quality of their grades. Rostaminejad et al. (2022) aimed to determine digital distraction in e-learning from the students' perspective and 1) communication problems; 2) technical problems; 3) multitasking; and 4) mobile phone addiction were identified as factors causing digital distraction.

In daily life, multitasking behavior is observed in many areas (Sana, Weston, and Cepeda, 2013). Young people in particular try to pay attention to many things at once, such as texting in class or while doing homework, or talking on a mobile phone while driving. This is called multitasking. Students often believe that they can listen to music, watch television, or communicate with friends online while doing their schoolwork without affecting their performance (Bowman, Levine, Waite and Gendron, 2010). Multitasking is also seen in the use of digital tools outside of social life. It can be said that multitasking occurs as a result of digital distraction (Kurt et al., 2021).

The fact that access to the Internet has become commonplace for employees at work increases their tendency to use the Internet for entertainment and other non-work purposes (Blanchard and Henle, 2008). While access to the Internet enables users to do their jobs effectively, they can also be distracted at work by activities such as online shopping, browsing social networks, watching short videos or films. This situation is known as cyberloafing. Cyberloafing is a concept similar to digital distraction in the line of literature. Lim (2002) and Ugrin, Pearson and Odom (2008) define cyberloafing as employees using Internet access for personal purposes and spending unproductive time on the Internet during working hours. While cyberloafing only takes place in the workplace, digital distraction can be found in a number of different areas, such as social life and education. For this reason, it can be said that digital distraction is a much broader concept than cyberloafing (Kurt et al., 2021).

Digital distraction is a technology-enabled user behavior that has recently attracted the attention of researchers due to its potentially harmful consequences (Chen vd., 2014). Looking at digital distraction in the literature, Eduljee, Murphy and Croteau (2022) investigated the relationship between digital distraction, awareness and academic performance in undergraduate students. The results show that 96.5% of the participants had a digital tool with them during their studies and 94% of them used a digital tool to help them with their studies. It was also observed that the purpose of using a digital tool in the classroom was to check the time on his/her mobile phone and to send a message to someone. Boredom management and staying in touch with others are some of the reasons for using a digital tool outside the classroom. McCoy (2013) found that instant messaging, checking the time, sending e-mails and sharing on social media were the most common behaviors of the students in his study. Göl, Özbek, and Horzum (2023) identified instant messaging, time control, boredom, social media sharing and system usability as significant predictors of digital distraction. Chen, Nath, and Tang (2020) reported that habitual technology use is the strongest predictor of digital distraction intensity and that an individual's level of internet addiction affects digital distraction intensity. In other words, people who are addicted to the internet are more likely to be digitally distracted in the classroom or at work. Duncan, Hoekstra, and Wilcox (2012) reported that students who used laptops experienced digital distraction from Facebook and other tools, and that 75% of participants used their mobile phones in the classroom during lessons. Liano and Wu (2022) reported that students with more problems with digital distraction received lower course grades. Similarly,

Junco and Cotten (2012) found that excessive multimedia tasks led to lower academic performance and more distraction among students. These findings highlight the importance of reducing digital distraction in order to optimise the learning environment and support student achievement. Indeed, Flanigan, and Titsworth (2020) found that teachers regularly monitor students who experience high levels of digital distraction in their classrooms and use digital tools for purposes such as social media, e-mail, and web browsing that are not related to the current task. As a result, Jarrahi, Blyth, and Goray (2023) developed the concepts of mindful work and mindful technology and discussed solutions to digital distraction. Their argument was that mindfulness is particularly useful for digital distraction. Although existing studies provide valuable information on digital distraction, it is still in the early stages of research. Most of the existing literature aims to determine the extent to which individuals use ICT for non-work purposes, to identify the types of digital distraction, the relationship between digital distraction and student/learner performance and to highlight the consequences of digital distraction. However, there is a lack of research into what drives an individual to engage in these distracting behaviors. In addition, the majority of studies have been conducted on students (Agarwal, Bansal & Kumari, 2021; Aivaz & Teodorescu, 2022; Flanigan & Tisworth, 2020; Hatlevik & Bjarnø, 2021; Liao &Wu, 2022; Lindström, 2020; Liu, 2022; McCoy, 2020; Nabung, 2024). However, the review of the literature did not identify any studies that were conducted with teachers. As it is assumed that teachers use technology for both lesson preparation and course content, as well as for communicating with their students and parents and for their daily activities, it is felt that their views on digital distraction will contribute to the literature. With this in mind, the aim of this study is to find out teachers' views on digital distraction. The sub-objectives of the study are to find out whether teachers experience digital distraction, what they feel when they experience digital distraction, in which environments they experience digital distraction and what precautions they take against digital distraction.

Method

Research Design

Phenomenology, a qualitative research design, was used in the study. The aim of the phenomenological approach is to define phenomena and to elucidate how an individual perceives a situation. In other words, phenomenology is defined as the study of experience from the perspective of the individual (Lester, 1999). In a phenomenological study, participants are asked to focus on their own phenomenal world and explain their experiences in their own words. Open-ended questions can be used as a data collection tool (Christensen, Johnson, and Turner, 2014).

Participants

The participants of the study consisted of 81 teachers, working public and private schools, who took the course Current Technology Problems in Anadolu University Educational Technologies Non-Thesis Master's Program (Distance Education) in the fall and spring Semesters of the 2021-2022 academic year. Of the teachers who participated in the study, 50 were female and 31 were male. Their seniority varied between 1 and 25 years.

Data Collection Tool

In the study, a semi-structured interview form was prepared by the researchers for the participants in order to collect data. In preparing the questions, expert opinions were sought and after their feedback and corrections, four open-ended questions were included in the interview form. The answers given by the participants were recorded in a written form. The questions on the interview form are as follows:

(1) Do you experience digital distraction in the Internet environment? If so, why?
(2) In which environments do you experience digital distraction and why?
(3) How do you feel when you experience digital distraction?
(4) What precautions do you take when you experience digital distraction?

Data Analysis

This study analysed data from four open-ended questions asked to teachers between 2021 and 2022. The teachers' answers were received in written texts and then organised for analysis. Content analysis was used to analyse the data obtained. Content analysis is a systematic research method for analysing and drawing conclusions from texts and forms of qualitative information. And it is also a systematic, repeatable technique in which some words of a text are grouped into smaller content categories by coding based on certain rules (Büyüköztürk et al., 2008). The process in content analysis is to bring together similar data within the framework of certain concepts and themes and to organise them in a way that the reader can understand and interpret them (Yıldırım and Şimşek, 2011).

To ensure the reliability of the data analysis, two researchers independently analysed the teachers' responses to the questions and then a comparison was made between the analyses. As a result of the comparisons, Miles and Huberman's (1994) reliability formula (reliability = agreement / (agreement + disagreement)) was used in the analysis of the qualitative data and the agreement rate between the coders was set at 95%. In order to protect the confidentiality of the participants, their real names were not used and code names were given. Further, the findings were supported with direct quotations.

Findings

In this section, the research findings have been grouped according to the themes identified in the teachers' views and summarised with direct quotes from the participants' views.

First, teachers were asked the question "Do you experience digital distraction in the Internet environment? Why?" One of the teachers said: "*I don't experience it much because I'm so caught up in the situation that nothing can distract me*" (T8), while T20 said, "*Yes, I definitely experience it*" and clearly stated that he experienced distraction. The responses of the teachers who reported experiencing digital distraction to the reasons for distraction are shown in Table 1.

Table 1 *Reasons for Experiencing Digital Distraction*

Theme	Codes
Reasons for Experiencing Digital Distraction	Advertising Latest news Alerts The vast amount of content on the internet Being asked to look at a social media account Looking at other studies while researching Suggesting other videos while watching a video Interest/Curiosity Boredom

With regard to the reasons for experiencing digital distraction, T6 drew attention to the sense of curiosity by saying: "*I think the sense of curiosity causes digital distraction. "When I want to look up a word, I search on Google and when I dive into the advertisements that come out afterwards, it's like I see myself a hundred kilometers away from the place I want to look for* ☺". "*I think it is because of the information overload on the internet. When I research a topic, I get lost in the irrelevant content of the website I visit*". The teacher (T61) complained about the amount of information on the Internet. T18, expressing that he experienced distraction due to the advertisements he encountered while researching. Some teachers complained about both the adverts and the news they came across, saying: "*Sometimes there are situations where I have to do so much research that I sometimes get confused, and the adverts and news buttons are very distracting*". (T21). "*Even if we are not interested in anything on the phone, if a message comes in, it immediately draws our attention in that direction.*" T56 stated that the notification that comes even when he is not in the internet environment distracts his attention. T8 said: "*This situation can happen because there is too much content on the Internet*" and explained that the reason for this is the high number of contents on the internet and explained "*The situations in which I experience digital distraction are usually due to the unwanted fact while doing a research or work that I need to focus on*". T35 stated that he actually experienced distraction because he was bored. Apart from that, she stated that social media distracted her with the answer *'Especially when I am about to do a research on my mobile phone, I find myself surfing on social media'* (T25), while *'When I am trying to research a topic related to my children, the texts I read direct me and I find myself looking at a completely different topic.*"(T9), she explained that other studies distracted her while she was researching. Another question asked was "How do you feel when you experience digital distraction?" The emotions felt by the teachers were coded as positive and negative emotions (Table 2).

Table 2 *Emotions as a Result of Digital Distraction*

Theme	Codes
Emotions as a result of digital distraction	Negative Emotions Positive Emotions

According to the negative emotions felt by the teachers, *'I feel that my time is being wasted, I feel that my time is being stolen"* (T34). T36 said that they felt negative emotions because of the lost time. T7 said, "*When I realise the situation, I think that I have wasted my time, and I get angry with myself*" and stated that she felt angry because of the lost time. Apart from anger, there were also teachers who felt sadness and regret: "*I feel sad when I have spent too much time and have been involved in content that has no personal contribution*". T49, "*But when I have experienced an unnecessary distraction, my only feelings are sadness and regret*" (T19).

Another teacher expressed her views as follows. "*I get the feeling that I am being deceived. I get angry and sad at the same time, thinking that I am wasting time*" (T61). Based on these views, it can be said that teachers experience negative emotions such as anger, sadness and regret when they experience digital distraction.

In contrast to negative emotions, there were also teachers who said that they felt positive emotions: "*When I experience digital distraction, I am happy if this situation has added something to me*." (T79), "*Sometimes it can also have benefits, like accessing very different content and learning new things*" (T13), "*I feel relieved because I am satisfying my curiosity.*" (T17).

Teachers were asked the question "In which environments do you experience digital distraction and why?" The environments in which teachers experience digital distraction are shown in Table 3.

Table 3 *Digital Distraction Environments*

Theme	Codes
Digital Distraction Environments	Social media Doing research Social environment Shopping websites Working life Leisure time

The reasons for being digitally distracted in these environments are shown in Table 4.

Table 4. *Reasons Why People Experience Digital Distraction in these Environments*

Theme	Codes
Reasons for Experiencing Digital Distraction in these Environments	Interest/Curiosity Advertisement Notifications Boredom Latest news Excessive content on the Internet

According to the teachers' responses, *'I experience digital distraction because of the news or advertisements that appear on my Internet browser while I am doing research on the Internet'*. T37 stated that the reason for experiencing distraction was news and advertisements while doing research. Apart from this, there are teachers who stated that they were distracted by notifications from friends: *"However, when I am with a friend or a group of friends, any sound on my phone causes me to shift my attention to it."* (T73), and some teachers stated that they experienced distraction because they were bored in a social setting. "*I usually experience this in social settings. If I am not happy with the environment I am in, or if the topic does not appeal to me, my eyes can drift to my phone.*" (T56). "*I experience this situation mostly on YouTube. In fact, I think there is no other explanation other than the feeling of curiosity about the option that appears.*" T3 stated that he experienced distraction on social media due to his sense of curiosity. In addition, T53 indicated that he experienced distraction in his leisure time by saying, *"I often experience this on holiday days when there is no work intensity and when I am constantly intertwined with technology"*. T48 stated that he experienced distraction from notifications and curiosity in the work environment, saying, *"At work, when notifications about*

what the groups are writing fall on my phone screen, I look at them out of curiosity". Others experience distraction in other environments: *"When I'm browsing shopping sites, if I see other products while I'm looking for a product I'm looking for, I might start looking at other products and buy a completely different product from the last one I was looking for*" (T10) and stated that she experienced distraction on shopping sites.

The final question directed was "What precautions do you take when you experience digital distraction?" The precautions that teachers take when they experience digital distraction are shown in Table 5.

Table 5 *Precautions Taken when Experiencing Digital Distraction*

Theme	Codes
Precautions Taken for Experiencing Digital Distraction	Self-control Turn off notifications Time limit Remote phone/computer Do not open/close too many tabs Install ad/cookie blocker No precautions

Regarding the precautions taken by the teachers against the situations of experiencing digital distraction, T5 stated that he prevented the situation of distraction through self-control by saying: "*When the importance of the work I am doing is high, I prevent myself every time I will experience distraction*". T7 stated, "*I limit or turn off notifications from most applications. I tend to keep only the notifications that I need to follow and important notifications open,*" explaining that he had turned off notifications as a precaution. T45 stated that he takes precautions by setting himself a time limit, responding: "*When I experience digital distraction, I try to focus on my work for 30 minutes and take a break for 5 minutes*". "*Regarding these distraction situations, I take precautions for situations where I need to prioritise, e.g. I put the phone away during working hours* (T48)*". "When I am in a social environment, I put the phone in my pocket, not on the table* (T61)" indicated that they took precautions by putting the phone away.

"When I search on Google, for example, I try not to open too many tabs. I try to take what I need and close it." T79 and explained that he avoided the distraction situation by not opening too many tabs. T11 stated that he took precautions with ad blocking software: *"I installed an ad blocker program on my computer because I think that digital distraction is usually caused by ads"*. As well as teachers who take precautions, there are also teachers who do not: *"Unfortunately, I can't take precautions, and I fall into the trap every time."* (T64).

Conclusion and Discussion

The current study aimed to examine teachers' views on digital distraction. According to the results of the study, most teachers report that they have experienced distraction in the internet environment, while a very small number of teachers report that they have not. Digital distraction is an important issue in today's society because, while making technology easier to use has become a key priority in today's organizations, designers have created systems that challenge users' self-control (Markowitz, Hancock, Bailenson, and Reeves, 2017). Application windows, browser tabs and news sources can be distracting for most people, as they provide the infrastructure for users to multitask through easy access to different applications (Afzali and

Morrison, 2018; cited in Jarrahi, Blyth, and Goray, 2023). In fact, the abundance of digital technologies interferes with mindfulness because it makes users forget what is important to them (intention) distracts them (attention), and prevents them from taking action (Stanford BeWell, 2019). In addition to the increasing use of digital technologies in education and training activities, which leads to digital distraction, most teachers experience digital distraction in their daily lives. The most common reason for teachers to be distracted by the digital world is interest/curiosity. With the development of technology, it has become easier to access any information at any time. In everyday life or in online environments, if there is a topic of interest while doing a job, it is possible to find answers to the questions by immediately leaving the job and turning to technological devices. Indeed, teachers also stated that they had been distracted from their work by a topic they were curious about in the digital environment. The ads we see online are mostly shaped by our search interests and search history. In the study, teachers also stated that they were distracted by the ads they often see online. At the same time, boredom in their environment or while searching is another reason for digital distraction. This situation is referred to in the literature as distraction to digital environments (Kurt et al., 2021).

It would be fair to announce that teachers' distraction during research negatively affects their work in parallel to the literature which states that interaction with mobile phones is associated with lower performance on concurrent tasks (Stothart, Mitchum, and Yethnert, 2015). Nabung (2024) found in his study that the prevalence of multitasking behaviours such as texting, social media browsing and web surfing significantly inhibits students' ability to concentrate, retain information and engage effectively with course material.

Another reason for teachers to experience digital distraction is the notifications they receive on their mobile phones (Kurt et al., 2021). Another reason why teachers experience digital distraction is the large amount of content available on the Internet. Examples include millions of videos on video-sharing platforms, thousands of new stories published on online news sites, or billions of users sharing content on social media platforms. According to the study's findings, most of the teachers believe that they are wasting their time when they experience digital distraction. Indeed, Aaron and Lipton (2018) stated in their study that when a student's attention is distracted by non-academic technology use, it can take up to 30 minutes to refocus and fully engage with the actual task. There were expressions of sadness and regret from teachers who felt they had wasted their time.

There are also teachers who say that digital distraction makes them angry with themselves. From time to time, when an individual is distracted from their work due to digital distraction, they may feel negative emotions due to decreased performance. In the study, it was observed that there were teachers who felt positive emotions in addition to these negative emotions. Teachers reported feeling happy because they were learning new information, they felt relaxed because they were getting away from the subject and resting, and happy because they were looking at things they were curious about.

Social media is the medium where teachers experience the most distraction. Studies on the use of social media in education show a high frequency of digital distraction (Flanigan and Babchuk, 2020; Wu and Xie, 2018). Indeed, research has shown that social media use and demographic variables have an impact on digital distraction. Furthermore, teachers experience distraction while researching, in social settings, on shopping websites, at work and during leisure time. Distraction situations such as browsing social media, researching and shopping online are digital distractions experienced in social, work and leisure settings. Reasons for experiencing digital distraction in these environments include interest/curiosity,

advertisements, notifications, boredom, news and the huge amount of content on the internet. Most of the teachers took some precautions to avoid digital distraction. They identified these precautions as self-control, turning off notifications, limiting the time spent digitally, taking the phone/computer away, not opening/closing too many tabs and installing ad/cookie blocker software.

Based on the results of the study, it can be said that most teachers/individuals are exposed to distractions in digital environments. To reduce digital distractions, strategies should be implemented to minimise interruptions, limit device use and develop mindfulness practices to encourage focus and concentration (Dontre, 2021). The first step is to inform individuals in such a way to raise awareness and share ideas about the possible consequences. Raising awareness of the harmful effects of excessive digital interaction and promoting digital literacy skills can empower individuals to make informed choices about their use of technology and reduce the negative impact of digital distraction on their productivity and well-being. In short, helping individuals become more aware of their technology use patterns can enable them to self-correct any self-correct overuse or misuse behavior (Chen, Nath and Tang, 2020).

In order to make the use of technology more cognitively challenging in certain situations, it is recommended that self-imposed limits and control mechanisms are put in place. In recent years, a number of apps and website blocking applications have emerged, reflecting people's desire for self-regulation. In a meta-analysis of 367 applications and browser extensions designed to promote self-regulation, the most common feature found was blocking and removing distractions (Jarrahi, Blyth, and Goray, 2023). In addition, individuals should be informed about the measures that can be taken to overcome digital distraction. As stated by Hatleik and Bjarno (2021) more research is required to develop items to identify resilience to digital distractions. In this context, studies should be carried out to make teachers in particular and all individuals in general more aware of their use of digital technology and how to reduce the negative effects.

In this research, data was collected from participants in written form. A similar study can be carried out with face-to-face semi-structured interviews. This research conducted with teachers can be repeated with different working groups (managers, administrators, and so on). Action research can be designed to reduce digital distraction. In addition to qualitative research, quantitative studies can be conducted on the level and dimensions of digital distraction among teachers.

Digital devices can create digital distractions in any environment, but these technologies modernize, streamline and enhance business and educational environments. For this reason, the recommendations to reduce digital distraction should be made with the positive effects of technology in mind.

Conflict of Interest

No potential conflict of interest was reported by the author(s).

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