



School-wide and Classroom Policies on the Use of Mobile Technologies: An Exploratory Study

By Davison M. Mupinga

ABSTRACT

The presence of mobile technology devices in today's classroom cannot be denied, especially when a majority of students carry a device. Educators face the dilemma of choosing between embracing these mobile technologies or limiting their use in the classrooms. Mobile technology policies are in place to guide the use of the technologies at school. This study sought to establish school-wide and classroom policies on the use of mobile technologies, the practicality of enforcing these school policies, and the consequences for violating such policies. Data were collected using interviews from twenty-seven (27) in-service career and technical education high school teachers and school administrators. Almost all schools had a written policy on mobile technologies. The policies varied from specific to vague, and the majority of teachers believed the policies were difficult to enforce. Suggestions for crafting school policies on the use mobile technologies are provided.

Key words: mobile technologies, school policies, Bring Your Own Device (BYOD), classroom policies, cell phones

INTRODUCTION AND BACKGROUND

In today's world, mobile technologies have become an integral part of our daily lives and how organizations conduct business. For instance, about 95% of Americans own a cell phone of some kind and 77% own smartphones (Pew Research Center, 2017). Furthermore, according to the Pew Research Center (2012), about 67% of cell phone owners found themselves checking their phone for messages, alerts, or calls, even when their phones were not ringing or vibrating; and 44% of cell phone owners slept with their phone next to their bed because they did not want to miss any calls, text messages, or other updates during the night. In the workplace, about 94% of American small businesses use mobile technologies to conduct their business (ATT Newsroom, 2014). Even panhandling (street begging) has gone high tech these days – it is not uncommon to find

panhandlers by road intersections carrying swipe machines (Houston, 2016), a clear sign of a tech-driven world. Although mobile technologies have been making inroads into education for decades (Vali, 2015), lately, through Bring Your Own Device (BYOD) or Bring Your Own Technology (BYOT) initiatives, a significant number of schools are incorporating mobile devices into classrooms (Herold, 2016). Mobile technologies, such as Netbooks, Notebooks, Tablets, Mobile Phones, iPads, and e-books have the advantage of bringing the outside world into the classroom by linking students to real people and giving them the capacity to work on real issues (Tomlinson, 2015).

Mobile technologies can be beneficial in a number of ways, for instance, when used to access Internet resources and digital tools that support teaching and learning (Kiger & Herro, 2015). The technologies increase opportunities for learning, particularly for students who find learning on a tablet more personal and easily accessible than being chained to a desktop (Vali, 2015). Furthermore, through mobile technologies, students can get real-time feedback from instructors, thereby making the learning process interactive and engaging (Schiola, 2015; Vali, 2015). Also, students are very familiar with these devices and commonly use them for their communication and informational needs (Cristol & Gimbert, 2014).

Through mobile technologies, a number of software applications (apps) can be made available to students and teachers in the classrooms. These apps can be downloaded free of charge or for a fee from iTunes, Google Play, or Amazon. The apps can assist teachers and students in a number of ways; for example, they can be used for sharing documents and files, storing files, managing class notes, keeping attendance, maintaining school records, and communicating with students and parents. According to Schiola (2015), apps “let teachers harness tech instead of fighting it.” Examples of common apps used in the classroom include: Drop box, Google apps, eClicker Polling

Systems, Documents to Go, Wikipedia, Course Smart, Edmodo, Evernote, Twitter, iAnnotate, Pocket, ClassDojo, Class Messenger, Classroom Organizer, and Remind101 (Dunn, 2012; Schiola, 2015).

Similarly, mobile technologies have become a game changer in business. They have enabled companies to cut costs, and often allow employees to both work from and collaborate from anywhere (Higgins, 2013). However, in education, the adoption of mobile technologies has been very slow and uneven (Hennigan, 2014). The reluctance to adopt mobile technologies in education has primarily been attributed to a number of reasons, namely: (a) viewing mobile technology devices as a source for distraction in the classroom (Fisher & Frey, 2015); (b) limited and dwindling funding sources as well as older administrators and school board members oblivious to the potential of technology (Hennigan, 2014); (c) lack of time by the teachers to find out which apps are useful in the classroom (Schiola, 2015); (d) lack of equipment or infrastructure to support mobile technologies (Hennigan, 2014); (e) difficulty distinguishing between students' "own" work and work completed by mobile devices (Fisher & Frey, 2015); and (f) lack of adequate professional development for teachers who are required to integrate new technologies into their classrooms and yet they are unprepared or do not understand the new technologies (Nagel, 2013).

Individuals who regard the technologies as a source of distraction argue that students would not pay attention to learning tasks at hand, but instead, spend time on social media, listening to music, or playing online games. In support of this issue, one study on digital distractions in classrooms found that students spent an average of 20.9% of class time using a digital device for non-class purposes (McCoy, 2016). The mobile devices can be considered a distraction judging by the numerous times that individuals check for text messages or social media throughout the day. Many students and adults too, are attached to mobile devices and consider them "part of their lives" and, therefore, being separated from the gadgets may cause anxiety issues. According to Elmore (2014), nomophobia, derived from "no-mobile-phone phobia", is the anxiety that people get when they "lose their mobile phone, run out of battery or credit, or have no network

coverage" (para 2). He adds, this phobia is considered worse among high school and college students, with some students taking showers with their mobile phones. Contrary to this seemingly negative view of mobile technologies in the classrooms, the technologies allow students to learn anytime and anywhere. Furthermore, it is important to note that when the devices are used within appropriate guidelines and with attention to instructional goals, they are powerful and cost-effective learning tools that can increase student engagement dramatically (Rogers, 2011).

Despite the numerous great apps available for educators' and students' use, a number of challenges have hampered full adoption of mobile technologies. Illustrating the challenges facing today's educators when it comes to mobile technologies in the classroom, Johnson (2015, para #6) asked:

Phones at school are inevitable. Should we embrace the "bring your own technology" (BYOT) model or the extreme "you take it out and I take it away!" policy? How do you monitor and keep 30 phones busy doing productive work? What do you do with the few kids that do not have phones? On the other hand, is keeping a phoneless classroom worth the hassle and effort of being the phone ogre? Can you have both?

A quick scan of school websites and research articles clearly shows how schools have responded to this challenge. Schools now have policies and practices that vary: some allow students full access to mobile devices and others have a complete ban on use of the technologies within school grounds. Some school policies reflect what goes on in business and social settings and embrace mobile technologies in the classrooms (Rogers, 2011). Unfortunately, other school policies are vague, silent, or outright prohibit the use of mobile technologies in school settings. This approach is perhaps due to fear of being labeled as unprogressive, avoiding liability issues or not knowing what direction to take on this issue. Either way, such policies and practices deprive teachers and students of the benefits of mobile devices in the classroom. Furthermore, the vague policies lead to confusion when it comes to how teachers and students treat mobile technologies within school grounds. This study sought to establish the school-wide and classroom policies on using mobile devices,

with the intent of providing guidance to school districts as they formulate or revise policies on mobile devices.

STATEMENT OF THE PROBLEM

Considering the role mobile technologies play in social and business settings, today's education leaders are re-examining their policies and practices on the use of mobile technologies in school settings. However, the educators face a dilemma between embracing the technologies that have so much potential in the classroom and limiting the potential disruptions as well as controlling the behavior of users who seem inseparable from their gadgets. Should schools allow unrestricted access and use of mobile technologies? And, if so, will the schools be able to deal with unintended consequences from the unrestricted access? If not, are schools creating learning environments that are far removed from our day-to-day lives? There is need for realistic and fair school-wide and classroom policies on using mobile devices. Any realistic policies should consider the changing times, but at the same time, security issues, infrastructural limitations, and challenges with enforcement, as well as discrepancies among the students who either have or do not have the technologies should be acknowledged. Extensive searches on the web have revealed no standard policy or practice when it comes to mobile devices. In fact, in some schools, the policy statements are so vague that they are meaningless and impossible to enforce. This situation creates potential problems when it comes to practice in the real world. There is need to establish current school-wide and classroom policies and practices with the intent to guide school districts as they seek to embrace mobile technologies. Therefore, the purposes of this study were to: (a) establish the school-wide policies regarding the use of mobile technologies; (b) establish the challenges, if any, to enforce mobile device policies; and (c) determine penalties imposed by schools for violating mobile device policies.

METHOD

Data for this exploratory study were collected from high school career and technical education CTE teachers and school administrators using a survey and focus group interviews. Data were collected from a convenience sample – due to their convenient accessibility and proximity

to the researcher. Twenty-seven (27) career and technical education high school teachers attending a professional development workshop at a Midwest university in the USA completed an online survey regarding school and classroom policies for mobile technologies. In addition, 27 school administrators responded to the survey. These school administrators were from the schools whose teachers responded to the survey. The CTE teachers and administrators participating in this study were from comprehensive schools, joint vocational centres, or in compact school districts.

The four survey questions on school-wide and classroom cell-phone policies were obtained from a survey by Obringer and Coffey (2007). Four open-ended questions pertaining to penalties for violating school-wide and classroom mobile device policies, common uses of mobile devices in the classrooms, concerns for adopting mobile technologies, and the support schools need to adopt mobile technologies were added to the survey. After completing the online surveys, each CTE teacher was asked to discuss his/her school-classroom mobile technology policy with an administrator to find out if there were any differences in understanding and implementation of the policies. Each CTE teacher wrote a summary of the conversation with his/her administrator on mobile device policies and these summaries were shared with other teachers in small group discussions during one of the professional development meetings. Three focus group interviews of nine CTE teachers per group were conducted to obtain additional information on uses of mobile devices to support teaching and learning and the support needed for schools to adopt mobile devices.

RESULTS

School Policies on Mobile Technologies

Almost all the high schools (96%) had some form of a written mobile devices policy. The policies on mobile technologies were posted on school websites, written in Student Handbooks, as well as in other school and classroom policy/rule documents. Three main policies governed the use of mobile devices in high schools, and these varied from complete freedom to use mobile technologies to restricted access or use of the devices on the school premises. With

the exception of three schools, the other high schools had no mobile technology policy for teachers. There were three (3) main school-wide and classroom policies for mobile technology use for students: School Policy 1: The majority of the schools (66.6 %) did not allow the use of mobile technologies on school grounds. Most schools in this category prohibited students from having their cell phones with them or in the classroom; the mobile devices had to be kept in lockers until the end of the day. School Policy 2: A few schools (20.8%), allowed the use of mobile

devices during certain times, such as before school starts, during lunches, and in hallways (when classes were not in session). School Policy 3: A small percentage of schools (16.7%) allowed the use of mobile devices in the classroom for instructional purposes. In this group, the teachers decided when students could use the mobile devices. Interestingly enough, many teachers felt that their school policies were outdated, not specific enough, and not easy to enforce. Table 1 shows policies on the use of mobile devices in classrooms.

TABLE 1: Policies on Usage of Mobile Devices in Classrooms

Mobile Device Policy	Frequency <i>N</i> = 27	Percentage
No mobile phone use during school hours. Students are not to be seen with a cell phone in hand and should keep them in their lockers at all times.	18	66.6%
Students can access their devices before the first bell, during lunch and in hallways. During class devices must be turned off or on silent mode.	5	20.8%
Students are free to use their mobile devices for educational purposes in the classroom setting.	4	16.7%

Inconsistencies were also observed from the school policies and current practices. At one high school, the mobile device policy stated that, “The use of cell phones during [the] school day is not permitted. Phones must be turned OFF from 7:50 a.m. until 3:30 p.m. (not on silent mode) and not visible, or they will be confiscated.” However, the policy goes on to say, “cell phones may be used in class for educational purposes as directed by the classroom teacher.”

Some schools reported restricted access to school network from mobile devices. In addition, other schools did not allow students to bring their own mobile devices (BYOT) to school due to liability issues. Two reasons cited for blocking mobile devices from the school network were “not to overload the network” and “to prevent students from visiting inappropriate sites.” The problem of using the devices for cheating and bullying were other reasons to restrict mobile devices in school settings. By not supporting BYOT, schools were avoiding liability when the devices get lost, stolen, or damaged. Although at this particular school, there was a policy that the school was not responsible for lost, stolen, or damaged devices, it was understood that parents often want the school to help look

for the lost devices. This situation, from one teacher’s point of view, would be a source of headaches. Therefore, it can be concluded that the school policies appear to be written to reduce liability issues rather than increase instructional opportunities.

Practicality of Enforcing Mobile Device Policies

Although all schools have written policies on mobile technologies, less than half of the teachers (44.5%) believed their policies were easy to enforce. At many of the high schools, students were allowed to keep their mobile devices with them throughout the day at school resulting in temptations to use them. To begin with, the students are accustomed to using their gadgets all the time and, therefore, enforcing a no-mobile technology policy may prove difficult. Another problem with enforcing the mobile technology policies stems from the ambiguity in some of the policies. As one teacher pointed out, “the lack of specific policies has given teachers and students both freedom and restraints.” At one high school, for instance, “Students are permitted to use mobile devices depending on the teachers. Some teachers allow the use of mobile devices in their classrooms ... as long as they [students]

follow school guidelines. Some [teachers] say not at all,” reported one teacher. This lack of clarity on what is acceptable and when it is appropriate to use the mobile devices was said to cause a lot of confusion and anxiety among the students and teachers.

One interesting observation was the contradiction between some teachers’ and administrators’ understanding of their school policies for allowing students to use mobile devices while on school grounds. About sixty-six (66%) percent of the teachers felt their school policies did not allow the use of mobile technologies compared to seventy-two (72%) percent of administrators. Though small, the number of teachers and administrators who did not agree that their school policies did not allow cell phone usage is troubling. Considering that the teachers and administrators are supposed to be on the same page when it comes to what the policy says and how it will be enforced, such a situation means mixed interpretation of the school policies. The teachers who highlighted this discrepancy reported that it was their administrators who were not familiar with the school policy on mobile devices. Giving the administrators the benefit of the doubt on being unaware of their school policies on mobile devices, perhaps the discrepancy might have resulted from vague school policies that were open to different interpretations. This situation underscores the need for clear school policies. Therefore, whenever new school policies on using mobile devices are developed, there is the need to ensure that all stakeholders (administrators, school board members, teachers, parents, and students) are on the same page and understand the policy.

Consequences for Violating Mobile Device Policies

The consequences for violating mobile device

policies seemed to be targeted at cell phones, and these varied according to the severity and frequency of the violations. Very few schools (22.2%) gave verbal or written warnings to students. In some schools (44.4%), the teachers and administrators confiscated the mobile devices. Another common consequence for violating mobile device policies was parental involvement. In about half of the schools, once a mobile device had been confiscated the schools notified the parents to come and pick up the device. The teachers reported that the devices were confiscated for differing periods as short as one or two days or as long as the whole academic year. Only one school indicated keeping the mobile devices for the entire academic year. At the schools which confiscate the devices for a day or two, the common practice was that student were expected to collect the device at the end of the day or the parent was notified to come and pick it up from school before the end of the day. In-school detentions and suspensions from school or from the school network were also common penalties imposed when students continued to violate the mobile device policies. Table 2 shows the different consequences for violating mobile device policies. Many school policies regarded the use of mobile devices as a privilege, and as such, students could lose the privileges if violations occurred. In one school district, the policy stated that,

Discipline will be imposed on an escalating scale ranging from a warning to an expulsion based on the number of previous violations and/or the nature of or circumstances surrounding a particular violation ... violations of the policy may be reported to law enforcement if the nature of violation warrants legal action.

Some examples of severe violations reported by the teachers included: cheating, hacking into

TABLE 2: Consequences for Violating Mobile Device Policies

Nature of Punishment	Frequency N = 27	Percentage
Notification of Parents	14	52.0%
Confiscation	12	44.4%
In-school Detention	10	37.0%
Suspension	8	29.6%
Verbal/Written warning	6	22.2%
Send to administrators	4	14.8%

the school network, and using mobile devices for criminal or inappropriate activities, such as bullying other students.

DISCUSSION

Although many high schools had mobile device policies in place, these appeared to be written to reduce liability issues rather than increase instructional opportunities. There were three main findings: (a) the majority of high schools restricted use of mobile devices on school grounds, (b) school-wide and classroom policies regarding mobile devices were not specific enough to allow easy enforcement by teachers, and (c) the consequences for violating mobile device policies, for a majority of the schools, seemed to indirectly punish the parents and add liability to the schools.

Restricted use of mobile devices on school grounds varied from school to school. The majority of schools did not allow use of the mobile devices at school, specifically in the classroom. Very few schools allowed unrestricted use of mobile devices by students, and the teachers decided when and how the mobile devices were used in the classrooms. A relatively small number of schools allowed use of devices outside the classroom, before the first bell and during lunches. At any other times, the devices were to be turned off or the students risked losing their phone privileges. Although mobile devices might be a source of distractions in the classroom, however, in this day and age, prohibiting the devices in school settings seems unrealistic and backward thinking. Some of the reasons include (a) this practice is not in sync with practices in social and work settings; (b) the mobile devices, especially mobile phones (e.g., smart phones), are now comparable to computers, they can bring the much needed outside world into the classroom, thereby enhancing 21st century skills (Tkach, 2016); (c) in the real world, today's students are expected to appropriately use these information and communication technologies to successfully function in a knowledge economy; and (d) these devices are an integral part of the students' lives and so, separating them from students causes anxiety.

Furthermore, with the push for authentic learning, that is, learning through applying knowledge in real-life contexts and situations, most of the educational practices do not match the talk. The classroom environments are far removed from the real world.

Today's world is abuzz with technology and yet, very little or limited technology exists in a majority of the classrooms. Even though there has been progress integrating technology into the classrooms, schools continue to deny students access to these tools. Students use mobile devices for most tasks a person can think of, yet often teachers still insist they not be used. This situation begs to question, at what point in their lives will the students learn how to appropriately use these tools? Prensky (2012) asked, "Should the Digital Native students learn the old ways, or should their Digital Immigrant instructors learn the new? Unfortunately, no matter if the [Digital] Immigrants may wish it, it is highly unlikely that the Digital Natives will go back" (p.71). Therefore, schools should embrace mobile device technologies and create learning activities that mirror what students do outside the classroom and in line with students' learning styles. On a positive note, the teachers and administrators who took part in this study recognized the value of mobile devices in the classrooms. They reported that their schools' current mobile device policies, specifically cell phone policies, which completely prohibited the use of the devices on school grounds were outdated and needed rewriting.

Another school practice that should be revised is blocking students and teachers from the school networks. One administrator argued that the reason for blocking students from school network was to "prevent students from visiting inappropriate sites." However, this may not be effective in preventing access to inappropriate websites, because students can still visit these sites using their phones. In any case, it is not about prohibiting the students from visiting the inappropriate sites: It is about teaching them how to safely surf the web and appropriately use mobile devices. The question becomes, If schools are not going to teach them proper Internet or cell phone etiquette, then who will?

School policies that are unclear, not practical, and those with consequences that do not deter violations can be challenging to enforce. Teachers expressed frustration that valuable teaching time was being spent on policing school policies on mobile devices. To complicate the issues, once devices were confiscated, the teachers were responsible for the security of the gadgets. Moreover, there is a concern that students can create a scene by refusing to surrender their mobile devices. One might ask, are schools prepared to deal with the repercussions from such school policies?

Therefore, it is advisable to seek input from all stakeholders: school board officials, school administrators, teachers, students, and parents on school policies regarding mobile devices.

School administrators and teachers should be aware of the role played by phones in the lives of today’s students. These tools connect them with friends, virtual libraries, music and games, and more; they become in effect a personal assistant. According to an avid mobile device “junkie,” T. Toasted (personal communication, January 20, 2017), when it comes to cell phones in the classrooms, teachers should realize that:

My cell phone is metaphorically and physically connecting me to information and to other people. Therefore, it’s possible for me to have an audience and a body of information (Google) that is not physically in the same location that I am. Teachers need to know who they are competing with [network of 300 friends or Google] for students’ attention.

Schools cannot afford to completely remove these valuable tools from the classroom, because the technology enhances teaching and learning. As schools craft relevant policies, there is need to bring together all stakeholders (school board members, administrators, teachers, parents, and students). One starting point would be to consider other school’s existing policies and continue the dialogue about their own school district.

Examples of schools that embrace mobile devices to enhance the teaching and learning include Benicia High School in California. This school acknowledges the value of mobile devices as outstanding instructional and learning tools and encourage both teachers and students to use them in the classroom (see Table 3). Posting such policies and consequences for violating the policies on school websites ensures that administrators, teachers, students, and parents are aware of the expected behaviors. For teachers

TABLE 3: Benicia High School’s Electronics Policy / Cell Phone Policy

Cell phones/electronic devices may only be used for educational purposes in the classroom setting. If students wish to use their device for non-educational purposes, they may do so before the morning bell rings, during snack or lunch time, and after school: Monday through Friday.
Cell phones/electronic devices must be turned OFF before students enter any classroom, office, library, locker room, lab, and/or theatre. Students may power their phones at the request of the classroom teacher.
Once inside any of the aforementioned locations, students must store their cell phones/electronic device in a location that is not visible to the teacher or other students, even though the devices are OFF.
Students may use devices with teacher approval.
If cell phones/electronic devices ring, vibrate, or are used for any reason without teacher permission, or are visible anytime during class time or are used on campus during class time, a staff member may confiscate these devices.
Refusal to surrender your phone when asked is considered defiance. Defiance may result in disciplinary consequences, including suspension. Parents will be contacted.
First Offense: the devices will be held in the Administration office until the end of the school day and either a lunch or after school detention will be issued. Students may pick up their phone at the end of the school day.
Second Offense: the devices will remain in the main office until the end of the school day. An Administrator will assign a Saturday School, and establish parent contact. Phones may only be picked up by a parent.
Third Offense: the devices will remain in the main office until Friday. The Administrator will issue an in-house suspension and a Saturday School. Phones may only be picked up by a parent.
The staff of Benicia High requests your FULL co-operation with our policy.
Source: Benicia Unified School District (2016)

and students, this adds another layer of clarity on what the school expects and when. Although many schools are eager to allow mobile devices in school environments, there is concern about not knowing what to do with disruptions from the devices. Therefore, mobile device etiquette is a skill that should be developed in today's students. Providing opportunities to use the mobile devices in the classrooms will likely help students realize that there are times when it is appropriate to connect and disconnect from the mobile devices. Denying access to the mobile devices does not teach students how to use the devices responsibly.

CONCLUSION AND RECOMMENDATIONS

The main findings of this study have implications to career and technical education programs. First, resources for CTE are not expanding proportionally to the increase in interest and demand for the programs (Gordon, 2014), and, therefore, allowing the use of mobile devices in CTE classrooms would provide access to the much-needed technology at very little or no cost to the schools or educational programs. Second, the use of a variety of interactive and hands-on activities is considered an effective strategy to engage and motivate students (Education Week Research Center, 2014). Therefore, if allowed in the classrooms, the currently underutilized mobile devices can be a valuable tool for engaging and motivating CTE students. For instance, a number of career and technical education teachers use applications such as Kahoot, Quiziz, Edmodo, Quizlet as well as a variety of tools from Khan Academy to engage and motivate students in the classrooms. Furthermore, the mobile devices can be useful when individualizing instruction for CTE students.

Third, mobile devices as instructional tools in CTE programs can be used to prepare students for the technologically rich workplaces. To ensure that CTE graduates can function in today's global work environment, they should be exposed to technologies used in the workplace. Therefore, any efforts by CTE programs to imitate real-world practices should be considered relevant and appropriate training.

Fourth, because many of today's students are obsessive phone users, there is the likelihood that completely prohibiting the use of mobile

phones (total disconnection from their social peers) while at school may cause students to "completely lose their mind[s] when they are away from their phones," according to Addition Tips.Net (2015). This situation calls for allowing the use of mobile devices in the classroom, to ensure that the students become used to disconnecting when it is necessary to do so.

Overall, the school-wide and classroom policies reported in this study focused on unacceptable use rather than acceptable use as evidenced by the few policies encouraging use of mobile devices in the classrooms. As schools recognize the challenges and benefits of mobile technologies in the classroom, there is need to guide them in crafting policies that take into account the benefits of the technology, and ease of enforcement. By not crafting policies on the use of mobile devices, schools are not only inviting bad behavior from students, but they also may open the door to civil lawsuits and even criminal charges. Finally, a starting point would be establishing existing policies, identifying what is working and what is not, and adjusting or discarding policies as needed. In addition, there is need for the school administrators, teachers, parents, and students to come together to develop acceptable school policies. Furthermore, the policies should be posted on school websites, in Student Handbooks, or on classroom walls to ensure that all the stakeholders understand the crafted policy. And if they have not, all school districts need to provide professional development to administrators and teachers on how to use mobile devices to enhance teaching and learning.

Dr. Davison M. Mupinga is an Associate Professor in career and technical teacher education at Kent State University. He is a member of the Mu Chapter of Epsilon Pi Tau.

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