K–12 Music Educators' Use of Technology and Social Media Platforms as Tools for Communication with Students and Parents

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The purpose of this study was to investigate K–12 music educators' use of technology and social media platforms to communicate with students and parents about their school music programs. Three research questions guided this investigation: (1) How do K–12 music educators communicate and disseminate information that pertains specifically to their school music program with students and parents outside of the classroom? (2) What technology and social media platforms do K–12 music educators use to communicate with students and parents outside of the classroom? (3) If K–12 music educators use social media platforms for communication, why do they communicate with students and parents in this way? A researcher-designed 16-item questionnaire was distributed to members of a state music association email listserv. Respondents (N = 246) were K–12 certified music teachers who specialized in general music, band, choir, and orchestra from a large southeastern state. Results indicated that music teachers preferred email and the social media platform Facebook as a means of communication with both students and parents. Respondents indicated that social media platforms allowed them to disseminate information quickly and easily. Implications for further research are also discussed.

Introduction

Over the past fifteen years, technological platforms used for communication have changed dramatically and are ever-evolving (DuBravac, 2015). With the invention of the smartphone, numerous mobile apps have been developed and their use has grown exponentially over a short period of time (Anthes, 2011). There has been a similar rapid development of social media platforms, with over 1.2 billion users worldwide as of December 2011 (van Dijck, 2013). Social media has influenced how people conduct business (Hendricks, 2014) and communicate (Tardanico, 2012). How and why people communicate has changed substantially (DuBravac, 2015).

Teachers are increasingly turning to "social media as a platform and a tool for meeting educational objectives" (Tuten, Wetsch, & Munoz, 2010, p. 371). Teachers who use social media to connect with students view it more favorably than teachers who do not, and students who connect with their teachers via social media feel closer to their teachers than students who do not (Forkosh-Baruch, Hershkovitz, & Ang, 2015). Parent-teacher communications have also evolved

from email to texting or social media due to new communication technologies (Thompson, Mazer, & Grady, 2015).

For music teachers, communication is essential. Music teachers work with students from the entire school. Unlike other "specials" teachers at the elementary level (e.g., gym, art, computer, librarians), music teachers have rehearsals and performances that must be coordinated between colleagues, administrators, parents, and students. Similar to coaches and activity sponsors at the secondary level, music teachers are some of the most highly visible teachers in the school district; therefore, effective communication skills are essential. Understanding how music teachers communicate with parents and students, and how that communication may be evolving, is a new area of research to be explored.

Literature Review

Researchers have investigated the role of technology in education in a variety of ways over the past twenty years (Ertmer & Ottenbreit-Leftwich, 2010; Harris, Mishra, & Koehler, 2009; Mumtaz, 2006; Ropp, 1999; Vannatta & Nancy, 2004; Willis, Price, McNeil, Robin, & Willis, 1997; Woodrow, 1992). In the late 1990s, researchers investigated a variety of topics: (a) how technology is used (the use and evaluation of educational software; telecommunications systems and services; multimedia portfolios; new media; computer simulations); (b) teacher education and professional development (preservice, inservice, and graduate teacher education; preservice and inservice training issues; diversity and international perspectives; the educational computing course; educational leadership; faculty development; instructional design; distance education); (c) integration into specific subject areas (reading, language arts, and literacy; mathematics; technology applications in research; science; social studies); (d) use in specific contexts/situations (technology-assisted instruction for special needs students; technology diffusion in elementary, secondary, and postsecondary institutions; graduate, preservice, inservice, and faculty use of telecommunications; and technology use with young children); and (e) educational theory (Ropp, 1999; Willis et al., 1997; Woodrow, 1992). More recently, researchers investigated factors that influence technology integration, suggesting that successful technology integration must begin with a consideration of the educational context, teachers' knowledge and attitudes, professional development, and the support of schools and policy makers (Ertmer & Ottenbreit-Leftwich, 2010; Harris, Mishra, & Koehler, 2009; Mumtaz, 2006; Vannatta & Nancy, 2004).

In music education, researchers have mostly investigated K-12 students' technology-assisted compositions (Airy & Parr, 2011; McDaniel, 2000; Mellor, 2008; Nilsson & Folkstead, 2005; Ward, 2009). The media through which music teachers communicate has changed drastically over the past fifteen years; music teachers' use of the Internet to communicate with others has increased over time and changed along with technological innovations (Bauer, 1999, 2010; Bauer & Moehle, 2008; Brewer and Rickels, 2014). Bauer's (1999) study was one of the earliest to examine music teachers' use of the Internet for communication.

Respondents were specifically asked about their use of Internet resources such as email, telnet, file transfer protocol (FTP), email-based discussion lists (listservs), newsgroups, gopher, and the World Wide Web when communicating with administrators and colleagues, for teaching students, conducting research and advocacy, and participating in professional development. Results showed that teachers regularly used email, the World Wide Web, and listservs to communicate privately and publicly with colleagues, music educators, and musicians, and to network with other music educators. Researchers have argued that technology and media will transform music education in the 21st century (Burnard, 2007; Savage, 2005; Thibeault, 2014). Music teachers rarely used the Internet to communicate privately with parents and students, to engage in public discussions with students, or to share information about their music programs.

Music teachers' use of the Internet for communication quickly evolved as they increasingly logged online to collaborate and have discussions with colleagues in an attempt to improve instructional practices (Bauer & Moehle, 2008). In a 2008 study, Bauer and Moehle examined an online discussion forum for music teachers for the academic year of 2005–2006. Results indicated that while the forum facilitated some discussions, such as the selection of repertoire, it did not work as well for other discussions, such as developing improvisational skills. The researchers suggested that certain topics might be better discussed in face-to-face conversations. Similarly, Brewer and Rickels (2014) examined music teachers' interactions on a social media platform, the Facebook Band Directors Group. They discovered that the most common topic of discussion was the location and selection of repertoire, and that the platform was effective in assisting teachers to form a community of practice with each other. Bauer (2010) further suggested that teachers go beyond discussion forums and use technology-assisted Personal Learning Networks (PLN) (e.g., an RSS reader connected to wikis, blogs/news, podcasts, and folksonomies) to learn, communicate, and collaborate with colleagues. PLNs are a collection of diverse, readily accessible resources that come from experts, peer-reviewed sources, and web pages.

As social media platforms gained prominence from 2006–2008 (Giebelhausen, 2015) and continued to grow, researchers urged teachers to consider social media platforms for instructional purposes. Albert (2015) and Giebelhausen (2015) recommended that music teachers use social media to form communities of practice with students using social media platforms such as Facebook, Edmodo, Google Classroom, YouTube, Pinterest, and Twitter. Albert (2015) suggested that social networks can facilitate learning experiences that may not happen in a face-to-face classroom and can provide a platform for sharing resources outside of the classroom and support activities that would be too time-consuming to complete in school. Giebelhausen (2015) recommended that teachers use social media to communicate with students, parents, and others who are devoted to the music program, suggesting that Facebook pages are particularly useful for communicating because anyone can receive information by simply "liking" a page.

Although Albert (2015) and Giebelhausen (2015) suggested that Facebook is helpful for teachers in communicating with students, Hew's (2011) findings indicated that it has little educational value for the students. In a meta-analysis of research studies on students' use of Facebook, Hew discovered that students use Facebook mainly to keep in touch with known individuals rather than for learning. Another challenge to using social media for communication in education is that students may open themselves up to invasion of privacy issues, such as data mining and the release of information to third parties because they tend to disclose more personal information about themselves on Facebook (Albert, 2015; Hew, 2011). Other challenges include cyberbullying and the use of technology without educational outcomes in mind (Albert, 2015).

These studies reveal that music teachers' use of the Internet to communicate with others has risen since 1999 and that music teachers have increasingly turned to the use of the Internet to create personal learning networks (PLNs) in addition to communities of practice with colleagues (Bauer, 2010; Brewer & Rickels, 2014). Researchers have advocated for the use of social media for communication amongst music teachers, parents, and students, including the use of Facebook for promoting music programs in particular (Albert, 2015; Giebelhausen, 2015). However, few studies have examined how music teachers communicate with students or parents, or why music teachers choose their means of communication. The suggestions that researchers have made for using social media are no guarantee that music teachers are actually adopting these practices. Therefore, there is a need to examine if and how music teachers communicate with students and parents through technology and social media and why they communicate in this way.

The purpose of this study was to investigate K–12 music educators' use of technology and social media platforms to communicate with students and parents about their school music programs. The present study was guided by the following three research questions:

1. How do K–12 music educators communicate and disseminate information that pertains specifically to their school music program to students and parents outside of the classroom?
2. What technology and social media platforms do K–12 music educators use to communicate with students and parents outside of the classroom?
3. If K–12 music educators use social media platforms for communication, why do they communicate with students and parents in this way?

Method

This descriptive study used a survey methodology with both quantitative data and open-ended response opportunities. IRB approval was granted by the authors' home institution.

Survey Instrument

A 16-item question survey was created by the researchers. The survey included questions about music teachers' use of technology and social media as a communication tool with students and parents (see Figure 1). Demographic information pertaining to the respondents' areas of teaching specialization, grade level of students, and years of teaching experience was also collected.

Prior to distribution of the survey, a pilot survey was distributed and returned within a two-week time frame. The survey was sent to K–12 music educators ($N = 20$) from a medium-sized school district in the southeastern United States representing general music, band, choir, and orchestra. Respondents provided positive feedback on the pilot survey and did not report any issues regarding the clarity of the questions.

Q1: What level of students do you teach? (Select all that apply)
    Elementary K-5
    Middle School 6-8
    High School 9-12
    K-12
    Other (Please Indicate)

Q2: How many years have you been teaching?

Q3: What is your area of specialization? (Check all that apply)
    General Music
    Choral
    Band
    Orchestra
    Other (Please Indicate)

Q4: Does your school or district provide you with a computer?
Q5: Does your school or district provide you with access to the internet?
Q6: How often do you use a computer?
Q7: How often do you use email?
Q8: How often do you use social media?
Q9: Which social media platform are you most active on?
Q10: Please rank in order your preference for communicating general information about your school music program with your students and parents.
Q11: Does your school music program use social media to communicate information to student and parents?

Q12: What type of social media platform do you use to communicate information to students and parents about your school music program? (Select all that apply)
    Facebook
    Twitter
    Other (Please Indicate)
    I do not use social media as a communication tool with my students and parents

Q13: If you use Facebook to communicate information to students and parents about your school music program, who is the administrator of the page? (Select all that apply)
    You, the teacher
    Another teacher in your school
    Parent of the program
    Student of the program
    School administrator

Q14: If you use Twitter to communicate information to students and parents about your school music program, who is the administrator of the account? (Select all that apply)
    You, the teacher
    Another teacher in your school
    Parent of the program
    Student of the program
    School administrator

Q15: Please rank in order the response below that best describes why you use social media as a communication tool with students and parents.
Q16: Please briefly describe your experience with using social media as a tool for communicating information with students and parents of your school music program.

Figure 1. Survey questions.

Procedures

The researchers requested permission from our state music educators association to distribute the survey via the state association's email listserv. Permission was granted and the survey was distributed to 2,670 K–12 music educators specializing in general music, choral, band, and orchestra. The survey was made available to the respondents for a two-week time period with an email reminder sent after the first week. An additional reminder email was sent two days prior to the close of the survey. At the close of the survey, a total of 246 completed surveys were returned, which yielded a 9.2% response rate.

Results

Demographic Information

Respondents ($N = 246$) in this study were K–12 music educators in the public schools of a large state in the southeastern United States (47.6% middle school; 38.1% high school; 37.4% elementary; 9.4% "other"; and 4.7% K–12). Respondents were asked to indicate all grade levels that they taught because many music educators serve as itinerant teachers at various grade levels, especially within small school districts and rural areas; this kind of reporting resulted in a total statistic higher than 100%. For this investigation, K-12 music educators were defined as state-certified practitioners who taught general/elementary music, band, choir, and orchestra. Most respondents taught for over 20 years, with an equal number of respondents teaching for 1-5 years and 10-15 years (27.7% for 20+ years; 20.2% for 1-5 years, 20.2% for 10-15 years; 17.0% for 6-10 years; and

14.6% for 15-20 years). For areas of teaching specialization, most specialized in band, general music, or choir (46.8% band; 46.0% general music, 37.4% chorus, 11.4% orchestra; 7.9% "other," such as guitar and piano).

Findings

In regard to school districts supplying technology, 97.6% of teachers responded that they were supplied a computer by their school district and 2.3% indicated that they were not supplied a computer. When asked about whether the respondents had access to the Internet from their school district, 99.6% indicated that they were provided Internet access and .4% were not. All of the respondents (100%) reported that they used a computer and email on a daily basis. When asked how often they accessed social media, 80.6% of the respondents indicated that they accessed some form of social media on a daily basis, 8.3% weekly, 5.9% never, 3.9% rarely, and 1.1% monthly. 90.3% of respondents reported using Facebook, while 9.7% used Twitter.

Music teachers were also asked to rank their seven methods of communication for disseminating information about their music programs (1 being most preferred and 7 being least preferred). Most music teachers preferred the use of email ($M = 2.39$, $SD = 1.40$), a letter home ($M = 3.27$, $SD = 1.94$), a website ($M = 4.03$, $SD = 1.81$), and social media ($M = 4.27$, $SD = 2.05$). See Table 1 for complete results.

Table 1. Music Teachers' Ranking of Preferred Methods of Communication to Disseminate Information about Their Music Programs.

Communication Method	M	SD
(1) Email	2.4	1.4
(2) Letter Home	3.3	1.9
(3) Website	4	1.8
(4) Social Media	4.3	2.1
(5) Apps	4.4	2.3
(6) Phone Call	4.5	1.5
(7) Face to Face Meeting	5.5	1.4

Note: 1 = most preferred, 7 = least preferred.

Many respondents used social media when communicating with students and parents (62.5%). Only 32.4% reported that they do not use social media as a tool for communication and very few music teachers have strict policies forbidding the use of social media in their schools (5.1%).

Respondents were asked to indicate all applicable social media platforms they used to communicate with students and parents. Facebook was selected by a majority of respondents (49.6%) with Twitter (22.0%) and other platforms (25.6%). Other platforms included the school newsletter, Google classroom, Remind, and Charms. Respondents also indicated that they did not use social media as a communication tool with students and parents (36.4%).

The next survey questions asked music teachers about their administration of Facebook and Twitter for communication. For music teachers who used Facebook, 81% reported that they were the sole administrators of the page; 17.6% had a parent administrator and 12.7% left it to their school. For a minority of respondents, either another teacher (8.5%) or a student (5.6%) administered the page. For Twitter, a majority of teachers administered the account (83.5%). Few parents, administrators, other teachers, or students administered the account (9.4%, 9.4%, 5.9%, and 4.7%, respectively).

Music teachers were asked to rank the reasons for using social media as a tool for communication with students and parents, from a scale of 1–4, 1 being the first reason and 4 being the last reason. Most teachers reported that they used social media because it allowed them to disseminate information quickly ($M = 1.79$, $SD = 0.74$), people were more willing to use social media to learn about their music program ($M = 2.15$, $SD = 0.94$), and it was easier to disseminate information ($M = 2.21$, $SD = 0.78$), and "other" ($M = 3.84$, $SD = 0.65$).

Finally, respondents were asked to describe their experiences with using social media as a tool for communication. Although 246 music teachers completed the survey for this study, only 151 completed the open-ended survey responses. The content of the descriptive responses was analyzed using Creswell's (2013) data analysis spiral - the two researchers read through the text, made margin notes, and formed initial codes, then read through the text again to establish broader themes that emerged from the data. Reliability was improved with both researchers analyzing the data independently, comparing codes, then coming to agreement that the data revealed four themes: (a) types of communication used (traditional versus new); (b) reasons why social media is used for communication; (c) the kind of information that is disseminated through social media; and (d) problems using social media for communication.

Teachers referred to four kinds of communication that may be considered traditional because these forms of communication were used prior to the rise of social media (2006–2008): email, letters home, phone calls, and face-to-face communication. Email was mentioned most frequently ($n = 18$), with letters home ($n = 8$), phone calls ($n = 4$), and face-to-face communication ($n = 1$) mentioned less frequently. Newer modes of communication included Internet, social media, and texting platforms. Internet platforms included the school/music program website ($n = 5$), blogs ($n = 1$), Edmodo ($n = 1$), Google classroom ($n = 1$), Periscope ($n = 1$), and Schoology ($n = 1$). Social media platforms were Facebook pages and groups ($n = 44$), Twitter ($n = 9$), Instagram ($n = 4$), and various apps ($n = 2$). Texting was done via the mobile application Remind ($n = 19$) or a cell phone ($n = 6$).

Out of the social media platforms discussed, Facebook was referenced the most, with 44 respondents describing their use of it. Of the 44 who referenced Facebook, about half ($n = 26$) described how they used it; most used either the school's Facebook page, a page they created specifically for their music program, or a closed group for their music program ($n = 19$). Others used Facebook Messenger to communicate with parents and students ($n = 5$), and only two used

their personal Facebook page to communicate. Overall, music teachers preferred using newer modes of communication (e.g., Internet platforms, texting, and social media); these newer modes of communication were discussed 100 times, whereas traditional modes of communication were only mentioned 32 times.

Social media was used for communication because it was fast ($n = 14$), easy to use ($n = 11$), reached a large amount of people ($n = 9$), built community ($n = 3$), reliable ($n = 2$), reinforced other means of communication ($n = 1$), and was "a way to spread fun and cheer" ($n = 1$). Respondents mentioned that parents and students responded faster to social media than email and other traditional modes of communication. One respondent wrote that "Students get the information much quicker when sent through social media and I have a better response from that." Some respondents mentioned that they liked being able to respond to questions quickly through social media and have noticed that parents were more involved. For example, "I have seen an increase in parent involvement in my booster organization since implementing the use of social media." One participant enjoyed being able to edit the information that was being disseminated:

> The fact that most people are on their social media page an average of 3 times a day, not only can I get information out quickly, but should that information need to be edited or modified, it can happen almost instantly. Wish I had had it when I was waiting for hours for parents to pick up kids at school when we were delayed at a contest or some unforseen [*sic*] delay. Communication is so much easier now than in the 80's.

Music teachers communicated information about their music programs to students, parents, and others involved in the music program. They used social media to send reminders (e.g., about deadlines, lessons, musical events in the community, and the music program's performances); advertised events; promoted their music programs; raised money; shared videos and pictures; disseminated schedules; facilitated public relations; posted assignments; shared educational materials (articles and listening samples); shared forms; shared information about trips; increased parent involvement; educated the school community about the music program; sent out schedules, concert dates, deadlines, and general resource information; and encouraged and built up the students in the music program (a total of 19 responses). Teachers also used social media to respond to student and parent questions ($n = 3$), gain feedback on their music programs ($n = 2$), and reinforce other means of communication ($n = 1$).

Although there were many positive responses to using social media, respondents raised concerns and problems with using social media as a tool for communication with parents and students. Respondents discussed equally the problem with students and parents not having access to social media outside of school ($n = 13$) and school policies against or discouraging the use of social media in school ($n = 12$). Some parents simply did not have or did not want social media accounts, while others lived in poverty and had no access to the Internet or smartphones. One respondent wrote "This is a high poverty school. Not all parents have access to internet/social media." Respondents also mentioned issues with privacy, both their own and students' ($n = 9$). As one participant shared:

> I prefer to keep my social media private. I don't like using it for school. My school does use it. But I feel it mixes personal with private lives. I feel pressure to be "friends" with my administrator and colleagues on social media which then causes stress to me. I'd rather have my social media to myself and use more traditional ways to communicate. I have a personal policy to not "friend" any of my student's parents but I feel I'm the only one who has that policy. A lot of teachers are friends with their student's parents which I think is inappropriate.

Student privacy concerns included real names being shared, photos and videos shared without permission, and students under the age of 14 using social media to communicate. One participant wrote:

> The reason I do not use Facebook is that I prefer to give my parents lots of videos and pictures from music class. Using FB will not work because there is no way to approve all of the requests and I prefer more privacy for my students. I think that many parents would want to be able to give me permission to put their child's image on FB and it is too time consuming.

Several respondents highlighted changes in students' use of specific social media platforms. Five respondents mentioned how fewer students use Facebook, perhaps because there is an overall decline in the use of Facebook in relationship to other social media platforms such as Pinterest and Tumblr, according to the Global Web Index (Olson, 2015). For three teachers, fast changes in technology made it hard for them to keep up-to-date on new social media platforms. As one participant shared, "[It's] hard to stay current." Finally, one participant mentioned that keeping up with social media was too time consuming, while two described how parents used social media to complain about the music program or used information found on Facebook against a teacher.

Discussion

The findings of this study revealed that music teachers used a mix of traditional modes of communication (e.g., letters home, phone calls, face-to-face conversation, and emails) and newer modes of communication (e.g., Internet platforms, texting, and social media). Our findings suggest that teachers will continue using more Internet-based communication than in the past (Bauer, 1999, 2010; Brewer & Rickels, 2014). Respondents' prominent use of Facebook in our study aligned with the findings of Brewer and Rickels (2014), who stated that there appeared to be an increase in the use of Facebook for discussions.

Many teachers in this study used social media to communicate, with Facebook and Twitter being used most frequently. This supports suggestions that teachers use social media for communication, particularly Facebook (Albert, 2015; Giebelhausen, 2015). The majority of teachers were administrators of their Facebook and Twitter pages. This has implications for music teacher education, as there are a myriad of privacy concerns and issues that may arise from using Facebook as a tool for communication with parents and students.

Teachers in this study brought to light valid concerns about privacy and social media. Data mining and the over-sharing of private information can cause problems in terms of blackmail, harassment, and the violation of transparency laws. Further, teachers who share their private cellular phone numbers run the risk of potential inappropriate communication with minors, perhaps risking their careers and professional status. School district policies concerning technology and social media seem to be quite mixed.

Teachers who used social media to communicate did so because it allowed them to disseminate information quickly and easily and they found that people were more willing to use social media to learn about their music program. The benefits of using social media to communicate are not practical for all teachers. Some teachers work in districts where parents have little to no access to the Internet, and therefore cannot use Internet platforms and social media to communicate.

Limitations of This Study

There were several limitations to this study. Results of the study must be interpreted with caution because the response rate was low (9.2%). It is possible that the response rate was low because music teachers have a very demanding teaching schedule and are continuously inundated with emails throughout the school day. Responding to the survey may have not been a priority. However, the results of this study do provide important information to inform future researchers on how some music teachers communicate with administration, parents, and students. Due to the scope of the present study and the low response rate, we were unable to aggregate the data to determine if the use of social media for communication differed among different levels of teaching (elementary, middle, high school), or years of teaching experience. It would be interesting to investigate the cross-section of these variables to determine how they interact with music teachers' methods of communication. Previous research by Charness and Boot (2009) has shown that older adults are less comfortable using advanced technology for communication as technology advances at such a rapid pace. It would be interesting to investigate whether those who have more advanced years of experience in the field are more averse to using social media platforms as communication tools than teachers who are new to the field.

Implications and Future Research

Understanding the benefits and drawbacks of social media platforms as tools for communication may help in-service and pre-service music teachers make better decisions about which communication tools are best for their current teaching contexts. It is important to consider the socio-economic status (SES) of students and parents in order to determine if electronic communication is possible, as most students with low SES backgrounds are less likely to have computer and Internet access at home (Vekiri, 2010). If SES is not an issue, teachers must

consider the potential benefits to using social media platforms for communication (speed and ease) versus the potential drawbacks (privacy issues and abusive behavior).

Teachers shared a variety of social media platforms they used for communication and described how and why they used them. Sharing this knowledge may help in-service music teachers adjust to changes in technology, while helping equip pre-service teachers with ideas and tools to communicate efficiently with parents and students when they enter the field. Teachers in this study never indicated that professional development opportunities helped them gain tools for communicating via social media. Further research on how teachers learn to use social media platforms for communication and whether teachers are gaining useful information about technological tools for communication from professional development opportunities is needed.

In the present study, teachers rarely reported using face-to-face communication. This may be because teachers rely on email and social media platforms to avoid direct confrontations with parents and students. It is also possible that teachers rarely use face-to-face communication because of time constraints. Further research into why teachers use (or do not use) other forms of communication is warranted.

Finally, the limitations of this study prevented researchers from determining if teachers communicate differently according to age, grade level, or area of teaching. Aggregating data according to these areas may reveal interesting findings. For example, teachers may communicate differently with large ensembles than for general music programs, and for different reasons. Additional data collection in future studies could reveal interesting findings in the generational difference in technology preference and usage based on years of teaching. This may have implications for preparing pre-service music teachers and helping in-service music teachers communicate more effectively, thus adding more current and relevant content to music education methods courses in music teacher professional development and pre-service preparation courses.

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