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Abstract

The increase of competitiveness in the higher education global market demands many universities to find innovative approaches in providing education services. Online learning technology offers higher education providers a potential solution to compete. As in most parts of the world, the growing trend towards online learning has also taken shape in Australia. The increasing number of international students brings a cultural diversity to the online learning environment while existing literature tends to suggest that on-line learning environments tend to be more suitable for students from individualism and low power distance cultures. A case study of two fully online subjects indicated that students with collectivism and high power distance cultural background felt uncomfortable with the online learning environment. Findings from this study would enable various institutions and their teaching staff to help students with diverse of cultural backgrounds feel more comfortable and positive in the online learning environment.

Keywords

Collectivism, high power distance, online learning

INTRODUCTION

The advanced development of information and communication technologies (ICT) has given universities an opportunity to improve their education services by implementing online learning systems. Online learning systems offer the student flexibility by allowing them to study anytime and any location. Online learning also increases the speed and efficiency of the interaction between teachers and the distance learners. For example, the traditional form of distance education relied heavily on the postal service and could potentially take a long time between interactions. This can now be improved by using electronic communication through the Internet (McCann et al.1998, McKnight 2003, Pasquinelli 1998).

The use of online learning systems has also gained popularity due to the "massification of higher education" in some parts of the world, especially in the European Union countries (Geuna 1999) and most developed countries (ILO 2000) including Australia (DEST 2002). The increasing competition in the higher education industry has driven universities in these countries to deliver courses online to reach a global market (McKnight 2003).

As a result, an interesting and challenging phenomenon has emerged. The increasing number of international students undertaking online courses brings a rich diversity into the online learning environment. Whilst this could be seen as a positive factor enriching the learning environment and the learner's experiences through interacting with learners from other cultures, this inadvertently creates a challenge faced by the educator – how to provide education services to students from different cultural backgrounds via online learning systems? Therefore it is argued that a rich understanding of how students from different cultural backgrounds study in an online learning environment would be the first step in addressing this challenge.

Cultural background and prior learning experience shapes the way a student learns (Zhang et al. 1999). The work of Hofstede (1980, 2001) has led to a theoretical framework with five dimensions to understand national cultures and distinguish one national culture in a country to another country. These cultural dimensions include power distance, individualism versus collectivism, uncertainty avoidance, masculinity versus femininity, long versus short term orientation. According to Ballard and Clanchy (1984), these dimensions influence the way students learn in the traditional face-to-face education environment. For example, students who come from an individualist society have learning styles that are different from students who come from collectivist society (Hofstede 2001). Therefore, international students who study abroad often face problems relating to the different styles of delivering materials in the classroom as well as communication amongst students and teachers (Ballard

& Clanchy 1984). However, the existing literature does not describe clearly on how the cultural dimensions may influence students' experiences in the online learning environment.

There has been a steady increase in the number of international students from China and South East Asia studying in Australia. According to Hofstede (2001) these countries are classified as having low individualism index (collectivism) and high power distance. This paper reports findings from a recent interpretive case study, which was conducted with a view of gaining a deeper understanding of how students from a collectivist and high power distance cultural background experience online learning in Australia. Findings from this study would enable various institutions and teachers to help students from this cultural background feel more comfortable and positive in the online learning environment. As stated by McGee (2002), whatever the reasons higher educational institutions have for delivering courses online, student's success is the desired outcome.

This paper is structured as follows: the next section will discuss the literature describing the two cultural dimensions of collectivism and power distance and their relation to students' learning. Characteristics of the online learning environment will also be discussed. The subsequent section will describe and explain the research method and research design adopted in this study. An interpretation of the findings will present and discuss the online learning experiences of students from a collectivist and high power distance cultural background. The final section will offer a summary and conclusion.

BACKGROUND INFORMATION

Cultural Dimensions and Students Learning

Students' attitude to knowledge and learning is shaped by the process of adaptation to the environment and culture where the student belongs (Keefe 1987). More specifically, students' learning is influenced by their previous education (Keefe 1987, Ballard & Clanchy 1984) or family and society surrounding the education school where the students grow up (Hofstede 2001, Watkins & Biggs 2001). According to Hofstede's (2001), cultural dimensions including individualism (versus collectivism) and power distance influence the way students learn and behave in the traditional face-to-face learning environment.

Hofstede (2001, p.209) describes the individualism versus collectivism culture dimension as "*the relationship between the individual and the collectivity that prevails in a given society*". Collectivists are described as people who are integrated into a strong group that provide protection for them but in exchange they are expected to be loyal to their group (Tylee 2001), while individualists are independent of any group (Triandis 1995).

According to Triandis (1995) and Wagner and Moch (1986), collectivist members tend to put group goals as the priority over personal goals. They maintain harmony amongst their group to avoid conflict, confrontation, and losing face (Bradley & Bradley 1984, Hofstede 2001). In a collectivist culture, if someone makes a mistake that is recognized by other members, not only will the person who has made the mistake feel shame, but this shame will extend to his or her entire group. Losing face is similar to humiliation in the collectivist society (Hofstede 2001).

In a collectivist classroom, students tend to avoid confrontation and conflict so that harmony can be maintained, losing face can be avoided, and they can get an agreement on one solution (Hofstede 2001). As the result, collectivist students are not familiar with argumentation and expressing their thoughts (Bradley & Bradley 1984). Furthermore, collectivists are also believed to be less task-oriented than individualists (Triandis 1995, Anakwe 1999, Chen et al. 1998). They put a greater emphasis on relationships rather than task achievement in order to keep a harmonious relationship within the group (Chen et al. 1998, Anakwe 1999, Salili 1996).

Alternatively, individualists put personal goals as their priority over group goals (Triandis 1995, Wagner & Moch 1986, Yamaguchi 1994). Individualists can cope with conflict and can consider other peoples opinions without taking offence to those people and their opinions (Hofstede 2001). As a result, confrontations and open discussions of conflict are common occurrence in an individualist classroom (Hofstede 2001). In relation to task achievement, individualists are seen as more task oriented than collectivists because individualists see achievement as an individual accomplishment (Triandis 1995, Anakwe 1999, Chen et al. 1998).

Previous studies have indicated that the differences between individualism and collectivism also impact their communication pattern (Gudykunst 1994, Gudykunst & Ting-Toomey 1988, Hall 1976). Individualists' communication pattern is low-context, which is explicit and direct (Hall 1976, Anakwe 1999). On the other hand the pattern of communication for collectivist members tend to be high-context or implicit where the information is given within the physical context in the person (Anakwe 1999). As a result, collectivists need to observe non-verbal communication such as gestures, facial expressions and timing (Anakwe 1999, Francesco & Gold 1998, Tupchiy & Hornik 2004).

Power distance is another cultural dimension described by Hofstede (2001). Power distance refers to how a society deals with the fact that physical and intellectual capacities are different among members within a society, which can develop into inequalities in power and wealth. For example, families with a high power distance background usually expect children and young people to obey and respect parents or older people. Conversely in low power distance families, each member of the family is treated as equal.

In the educational environment of high power distance societies, teachers are treated with utmost respect whether in school or outside of school (Hofstede 2001, Ballard & Clanchy 1991, Ho 2001). Teachers have dominant power in the classroom and the process of education becomes teacher-centered (Hofstede 2001, Ling & Mok 1993). As a result, lessons look more like a monologue as students listen and accept what their teacher says. Students only speak up when they are invited to by the teacher, which is typically when they are asked to answer questions (Hofstede 2001). Students are usually not ready to oppose and argue with the teacher, because the students have to obey and respect the teacher (Kwon & Danaher 2000, Bradley & Bradley 1984, Salili 2001). Ballard and Clanchy (1991) believe that the impact of the teacher-centered approach forms a direct knowledge between teacher and student. Teachers are often seen as transmitters of knowledge and students become more dependent on the teacher for their learning. As students are exposed to only one source, they become unfamiliar with alternative viewpoints, discussing and comparing ideas (Ballard & Clanchy 1991, Bradley & Bradley 1984).

In comparison, the teacher-student relationship in a low power distance culture is student-centered (Hofstede 2001, Ballard & Clanchy 1991, Watkins & Biggs 2001). That is, the teacher pays greater attention to the students' needs (Hofstede 2001). The learning style of the low power distance is more independent than the high power distance students. As a result, students from low power distance society are expected to find their own way in developing their own knowledge, while the teacher acts as their guide or facilitator.

Students from a low power distance culture are openly encouraged to express their own opinions (Hofstede 2001). They are allowed and encouraged to ask their teacher questions when they do not understand and even to argue with the teacher as well as constructively oppose their teacher's thought. Since the process of learning in the class is two-way communication between the teacher and the student, knowledge is built from discussion instead of delivered one stream from teacher to the student (Hofstede 2001).

The impact of individualism, collectivism and power distance as discussed above occurs in the traditional face-to-face learning environment. To understand the impacts of these cultural dimensions in the online learning environment, the characteristics of online learning need to be discussed.

Online Learning

Long (2004) argues that the two types of online communications, synchronous and asynchronous, alter the interaction between the students and the teacher. In synchronous online learning, the student can interact with other students or their teacher in real time (Knapp 2004, Lanham & Zhou 2002). Benefits offered by synchronous online learning include the ability to create social relationships between students (Chen & Wang 2004) and the ability to provide an instant feedback as students no longer have to wait for an unlimited period of time to get a response from their teacher (Chen & Wang 2004). However disadvantages include the inflexibility of the schedule since all the students are required to log in at a pre-arranged time (Chen & Wang 2004) and the hard time coping with the lag of reading and typing amongst students during discussion time (Spencer & Hiltz 2003).

In asynchronous online learning, the student does not respond to other students and the teacher in a real time mode, but to stored data which is sent from other students or the teacher (Long 2004). Using asynchronous online communication, students are able to access information, participate in learning activities and interact with other students and the teacher at his or her own time and pace (Lanham & Zhou 2002, Piscurich 2004, Singh 2004). This situation also enables the students to reflect upon the message or refine a response before they send it. However, Myers (2000) has claimed that students are isolated, since the environment in asynchronous online learning gives the students less chance to interact with other students in real-time. This environment also requires the students to wait for responses from other learners, which sometimes can take days or weeks depending on the other members of the class (Lanham & Zhou 2002).

Harasim et al. (1996), Singh (2004), and Palloff and Pratt (2003) argue that in online learning, students are required to be independent and participate actively in discussing course material, instead of just passively accepting the content. Students learn by sharing ideas, discussing, debating, and building knowledge through interaction and information exchange. Students need to respond to questions given by the teacher, think about the feedback given by other participants and post feedback in response to their messages (Palloff & Pratt 2003). The aim of the discussion is to explore more specific topics in-depth (Piscurich 2004). A student needs to be

independent and active in these discussions. Analytical and critical thinking towards the content of the course material is important, rather than just passively accepting the content (Singh 2004).

Previous research has indicated that online learning is designed to be more student-centered than teacher-centered (Chadha & Kumail 2002, Kearsley 2000, Palloff & Pratt 2003, Piskurich 2004, Harasim et al. 1996). The teachers' function is more likely to be that of a facilitator, defining objectives and managing the learning process (Harasim et al. 1996, Kearsley 2000). Guglielmino & Guglielmino (2004) believe that to be more effective in learning under the student-centered approach, students need to be independent learners and more self-directed. Looking for help by asking question, seeking advice from the instructor is important in eliminating barriers in the learning process (Guglielmino & Guglielmino 2004, Singh 2004, Palloff & Pratt 2003).

In the online learning environment, there is no dominant position at the front of the classroom that usually happens in the traditional education environment (Kearsley 2000). Each student has the same opportunity to speak and express their opinion freely, therefore having the same voice as the teacher and fellow class members (Kearsley 2000).

However, the online learning environment has been criticized for this homogenous characteristic. Tylee (2001) and Dunn and Marinetti (2004) have argued that there is a limited ability to cope with various types of preferences of learning and cultural background. Those who prefer to learn by watching and observing the actions of others are disadvantaged in the online learning environment because there is a visual absence between students and the teacher (Tylee 2001). Activities in online learning should be designed around the interests and cultural background of the learners who are going to use the system (Dunn & Marinetti 2004).

The online learning environment appears to be suitable for students who have a learning style influenced by their individualist and low power distance relationship cultural background, than those whose learning style is influenced by a collectivist and high power distance background. It is argued that if the online learning environment is used in order to reach students from around the world then there is a need to consider the different countries and different national cultures of these students in order for them to study effectively in the online learning environment. Realizing this paradox, this study aims at exploring *how students from a collectivist and high power distance society experience their learning style in an online learning environment.*

The word 'experience' in this paper refers to students' impressions and feelings that they are undergoing whilst studying in an online environment. For example, whether the students find learning online is suitable, comfortable and fit with their learning expectations or they find themselves encountering difficulties in having to adapt to the 'new' environment. The students' experiences were analyzed from the perspective of how the students were influenced by collectivism and high power distance cultural backgrounds.

RESEARCH APPROACH

A qualitative interpretive case study was adopted as the research method in this study. According to Benbasat et al. (1987, p.81), case study enables the researchers to examine "a phenomenon in its natural setting, employing multiple methods of data collection to gather information from one or a few entities." In this project, the qualitative and interpretive approach allowed the researchers to gain an in-depth understanding of the ways students from collectivist and high power distance societies experience their learning in an online environment. Students' impressions, interactions, participation, communications and other activities were studied in their immediate learning context.

The study took place at Woodroffe University in Australia during summer semester 2004-2005. Student participants were selected from two fully online subjects: Strategic Information System Management and Introduction to Database Management and Programming. The host university, their online learning environment, selected online subjects, and student participants are given pseudonyms to protect their identity and privacy.

These two subjects were delivered fully online. All the teaching materials, teaching and learning activities (such as discussion forums) were conducted through a web based learning management system called Online Sphere Dome. There were no regular face-to-face lectures or tutorials for the semester. The primary communication channel between the teaching staff and the students was via Online Sphere Dome.

There were thirteen students participated in this research. All the students were international students from several countries in Asia including China, Hong Kong, Indonesia, Malaysia, and Thailand. These countries ranked as low IDV - individualism - (thus high collectivism) and high PDI - power distance index. Some students had studied in a fully online subject previously at Woodroffe University, although the majority of subjects these students completed were face-to-face. All participants claimed that they never studied in an online learning environment in their home country.

Semi-structured face-to-face interviews and direct observations were selected as the data collection methods. Students were asked to tell the researchers their culture and their learning background. Students were also asked to give a brief subjective comparison between face-to-face and on-line classes. An analysis of their answers can be found in Djojosaputro (2005). Further questions were asked to explore and identify students' perceptions and impressions, their feelings and problems they have whilst studying online, and approaches they were adopting during the semester adapting to the online learning environment. Direct observations were conducted to examine how the students interact with each other and the lecturers and use the online facilities such as the discussion forums to learn during the course. During data analysis, qualitative data collected from semi-structured interviews and direct observations were integrated.

The qualitative data analysis technique employed in this study was meaning condensation (Kvale 1996). This technique aims at condensing large interview text into short and brief statements while retaining the main meaning of the original statement text. This is followed by a cyclic process of reflecting upon those brief statements by the researchers to find meaningful relationships between those statements in relation to answering the research question. Later, findings in the form of insightful themes and their descriptive meanings can be drawn through examining these relationships (Kvale 1996).

INTERPRETATION OF FINDINGS

Students were asked whether they attempted to develop social or learning relationships with other students in their online subject. Surprisingly, no one attempted to do this. Instead, most of the interviewed students explained how the online learning environment discouraged them to build relationship with other students. These students felt that knowing the online classmates' names was not enough. The students claimed to have needed to meet other students face-to-face to be able to build a social relationship. This is implied in the following quotes:

> L: *it's hard to make friendship online because you never met. I only see their names.*

> J: *[I didn't contact them] because I didn't see their face. I didn't know who they are. Sometimes I didn't even know [whether they were] male or female. Just see the name... I didn't really have anything to say to them.*

In addition, these students also claimed that the Online Sphere Dome did not provide a function that allowed students to contact each other in a more private way instead of the public discussion forum. This situation discouraged the students to make and communicate with friends.

Aside from feeling isolated and reluctant to build social or learning relationships with other students, the majority of the interviewed students claimed that they wanted to be involved with other students in studying or working on assignments. The feeling of dependency of class members can be seen amongst the interviewed students. As a result, it is believed that students still need assurance from other students. The students did not feel confident in doing the assignment alone. That is, by looking at other students work ensured that they were on the right track. This also enabled students to share information and discuss the work with friends.

This finding supports the claim of Myers (2000) that is one of the disadvantages on the asynchronous online learning environment is making the learners feel isolated since there is less chance to interact with other learners in real-time. The interesting point is that even when the technological facilities exist, there is a lack of some social support to help students socialise and form study relationships online.

With regard to exploring the concept of losing face, the participants were asked about their experiences in posting messages to a public forum in the online learning environment. Most of the interviewed students admitted that they still felt uncomfortable in posting messages in a public forum because everyone could read it. They were worried about other people's judgments and impression of them, their question and their written English. Most of the students interviewed were afraid that their classmates would look down on them because of the messages they posted. For example:

> G: *I don't like posting questions in Online Sphere Dome. The reason is maybe I will ask something stupid and some of my friends may know me... Let's say if I put a basic question when I don't understand something. Maybe other students who are expert in this unit will think of me like 'ah.. this guy is stupid', because my question is too easy for them*

The students believed that even though they never met face-to-face, posting a message in the online environment contains identifiers such as their name being attributed to that post. Thus, although other friends can not see the sender physically, collectivist students already believed that he or she loses face because people know or are able to identify who they are.

This problem did not only occur when they wanted to post questions, but also when they had an opportunity to post an answer to students' questions. Students were still reluctant to post their answer in the public forum, because they did not want to lose face in case their answer was wrong. This is potentially why in the discussion folder; the lecturer answered the majority of the questions. There were only a few students who tried to answer other students' questions. Due to this situation, there was lack of sharing of information and ideas amongst students. The information mostly came from the lecturer.

Palloff and Pratt (2003) and Harasim et al. (1996) have argued that one of the characteristics of the online learning environment is to encourage students to share ideas and discuss issues through interaction and exchange of information. However the findings above challenge this claim. The sharing of ideas and discussion may not applicable for students from collectivist and high power distance cultures as shown in this study. A resulting question that is raised is: how can we change student's attitudes toward making and accepting mistakes whilst learning?

In one of the subjects, students were required to form a group for an assignment. The interviewed students were asked how they went about forming a group for this assignment. Some students admitted that the online learning environment hides valuable information such as the non-verbal communication which can help them in picking group members. Even though students could form a group without having met before, they felt that having an impression about someone, such as his or her attitude, the way he or she talks or acts, could help them to decide whether they could work well with that person or not. With their very limited knowledge about other students, some students decided to be in a group based on any information they could gather from messages posted. This included guessing information from other students' names which sounded similar to the country they are from. The cultural background and language were some of the reasons the interviewed students selected someone to become a member of their group. All these students believed that they did not have to adapt too much because they have a similar culture. This is implied in the following quotes:

> F: I felt it was easier to work with my group members, because we knew each other. All of us are from the same country, so it was easy to communicate to each other.

All of the participants who had group assignments also said that meeting face-to-face with their group was essential. No one interviewed felt comfortable discussing the assignment with their group online, even though the subject being taken was a fully online subject. As a result, the participants attempted to get group members who live in a close geographic area or close to the campus. It was believed by the interviewed students that this approach gave them a chance to have face-to-face meetings.

Many previous authors claimed that the online learning environment can not cope with different styles of learning preferences and cultural background (Tylee 2001, Dunn & Marinetti 2004). However, Tylee (2001) argues that there are some learners who prefer to learn by seeing or hearing because they need to observe other people's action. For learners who have this type of learning style, online learning which does not provide visual presence of the other people can be disadvantaged. The findings from this study support Tylee's study (2001).

According to most of the students interviewed, the online learning environment is more task-oriented than the face-to-face environment. That is, the students become so concerned about their assignments that students do not think about the distance between them and their lecturer anymore. Instead, they keep asking the lecturer questions because they want to get the answer to be able to complete the assignment. The absence of friends in the online learning environment also caused the interviewed students to address the messages direct to the lecturer when they could not solve the problem themselves. This finding suggests that the online learning environment reduces the power distance between the lecturer and the students. This effectively turns the high power distance dimensions towards a low power distance.

The reaction of the lecturer also impacted this reduction in the level of power distance. Conversation between students and the teacher in high power distance traditional face-to-face class is usually one way communication. The students hesitate to speak up in the class and to be open with the teacher. In our study, as a majority of the students still felt embarrassed to send questions in the public forum, some of the interviewed students sent private emails directly to the lecturer asking him/her to clarify the subject materials and assessment requirements. As the private conversations started, the personal communication distance was reduced; students felt that the dominant power of the lecturer that they used to feel in the classroom was also reduced. Those students acknowledged that they felt more comfortable to speak up their mind to the lecturer. Students said that when they noticed that the lecturer was responsive and helpful, them felt more encouraged to ask the lecturer more questions.

Kearsley (2000) has claimed that online learning is a low power distance environment. Everyone in the online learning environment is treated the same regardless of their positions or prestige and there is no dominant position at the front of the class which typically occurs in the face-to-face environment. Each student has the

same opportunity to speak up whenever they want to. While supporting the openness in the teacher-learner online communication, this paper suggests clarifying Kearsley's points:

- Firstly, the learner-teacher communication in online learning does occur. However students tend to feel more comfortable to communicate with the lecturer in private rather than in public.

- Secondly, the question of whether or not the dominant role of the lecturer is reduced in the eye of the student's with high power distance cultural background needs to be further examined.

When interviewed students were asked whether they relied more on the students' answers or the lecturers, the majority of participants responded that they could not rely on other students' answers. These students still expect the lecturer's confirmation before they decide to accept those answers. Some interviewed students also admitted that they tried to contact the lecturers because they needed to get assurance and guidance from the lecturer. Essentially, the interviewed students wanted to make sure that what they studied or what they did met the criteria the lecturer expected. This finding reflects the claim that students with a high power distance cultural background still have a dependent style of learning as opposed to the student-centred approach in online learning as proposed by Guglielmino and Guglielmino (2004).

Hofstede (2001) argues that in the high power distance culture, students tend to have a dependant style of learning. The finding above supports this argument indicating that this dependency still can be seen among these students. Even though there is an indication that the power distance is reduced in online learning environment, the students still expect that the knowledge comes from the lecturer rather than building the knowledge themselves through discussion and interaction.

Essentially, the findings indicate that the interviewed students from a collectivist and high power distance culture want to be guided by the lecture in the online learning environment. These students relied heavily on the lecturer's information and answers whilst studying that subject during the semester.

SUMMARY AND CONCLUSION

In summary, as revealed in this study, students from a collectivist and high power distance culture tended to experience the following whilst studying online:

- Feeling isolated due to the limited systems support in forming and establishing social relationships with their peers in online learning environment. This was caused by two factors. The first factor is the need to belong to a social group when learning especially for collectivist students. The second factor is the lack of non-verbal cues which are believed to be essential in communication by collectivists;

- Feeling hesitant posting messages in the public discussion forum to avoid losing face. The interviewed students believed that by posting messages to the public forum, their competence or knowledge, will be exposed and judged by other students;

- Clear preference to form assignment groups with a member from the same cultural background and/or someone they can meet with face-to-face. Again, collectivists need non-verbal communication cues to form and establish their working relationships;

- Benefits from open communication with the lecturer in private. Students did not wait to be invited by their lecturers to ask questions. Rather, they took a more proactive role in asking questions and exchanging messages with their lecturers based on the students needs. In this sense, students adapted their learning style from being "invited' to speak to asking questions when needed, although the questions are not asked in the public forum;

- Strengthened reliance on the lecturer as a source of knowledge. Students expected the knowledge to come from the lecturer and still found it hard to accept opinions from online peers. The reliance on the lecturer in knowledge acquisition is important in collectivist students' learning. This may happen due to the fact that they have limited support to socialise and learn with friends.

Therefore, this study suggests that more support including both technical and social components be incorporated in learning management systems. For example, a facility such as Private Messages to allow students to contact others privately would help students to have private conversations with other students and with the lecturer and build social relationships with each other. The lecturer could help students to learn to evaluate and trust other students' comments and encourage constructive feedback within students.

With the growing number of students undertaking higher education, universities and education providers have adopted an online learning approach to reach and deliver teaching to students around the world. Therefore, it is important to address different needs and provide effective teaching services to international students with diverse

learning style. By informing the education providers of the above experiences by students from collectivist and high power distance cultures, this study will make the first step in assisting them in developing online learning environments to deliver more effective teaching services to students. By incorporating both technical and social components, universities and lecturers can help students from different cultural backgrounds feel more comfortable and positive when studying online.

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