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Iranian students’ readiness for using podcasting in higher education: Access, familiarity, and experience

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Abstract

The purpose of this study was to investigate Iranian university students’ readiness towards using podcasting technology. One hundred and twenty university students completed the podcasting readiness questionnaire which measured their readiness through three sub-scales: access, familiarity, and experience. The results showed that a majority of students reported owning a portable device and more than half of them had easy access to these devices. They had a high level of familiarity with podcasts and only a few of them never downloaded a podcast. Most of them downloaded podcasts for listening to materials not related to their university courses. Although they had experienced classes that rarely provided them with podcasts, they believed that using podcasts would contribute to their learning in university courses.

Key words: podcasting; readiness; higher education; Iranian students; access; familiarity; experience

1. Introduction

The advent of innovative technological tools has contributed to the continual improvement of higher education during the last few decades. Particularly, the internet-based education technologies have influenced teaching and learning at various levels [1]. The pervasiveness of using these technologies among students has guided educators to explore their benefits for distance and mobile learning to tackle students’ problems with regard to time and place of study.

One of these new technologies that has gained popularity and special attention in education recently is podcasting. A podcast refers “to any automatically downloadable audio or audio/video file (commonly in mp3 format)” [2] (p. 371). These mp3 files can be downloaded on computers or any portable device such as mobile phones or laptops. Students can easily listen to these files in any location according to their needs. This is the most important advantage of podcasting for students [3]. Podcasts can be audio files that play music, speech or mix of sounds; or audio and video files (vodcasting). They may document and substitute class lectures (lecture podcasts), provide students with additional materials for the classroom (supplementary podcasts); and be used as class project when they are generated or edited by students (student project podcasts) [4], [5], [6]. The burgeoning interest in

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using podcasting in education can be attributed to the pervasiveness of the internet, fast growth of broadband, and availability of personal computers and portable devices [7].

1.1. Podcasting in higher education

Although podcasting was first used for personal entertainment and information, there has been a surge of interest in its use in education for improving learning and teaching process especially in distance learning and e-learning programs [3]; [8]; [9]. The following can be some of the objectives and uses for podcasting in education [2], (p. 372):

- Enrichment of distance learning,
- Facilitation of self-paced learning,
- Remediation for slower learners,
- Enrichment for advanced and/or highly motivated learners,
- Assistance for students with reading and/or other disabilities,
- Auditory support for multi-lingual education, and
- Collaboration among transitional students.

While early research on podcasting was limited to certain areas of specification, it seems that studies related to benefits of podcasting across university disciplines are growing [10], [11], and [12]. Research studies support the fact that students who use podcasts during a course of study perform better than those who don’t [13], [14] and podcasting can lead to better understanding of the theoretical issues of the course and to more effective practical skills [8]. However, it has been suggested that the learning of students is improved by podcasting as a result of higher motivation and positive attitudes among students [15]. Yet, there are some studies that have shown no effect on students’ achievement after using podcasts [16]. Heilesen [17] believes that students’ performance in using podcasts should be evaluated by considering external variables such as “academic environment, discipline, teaching form, pedagogical tradition, use of technology, use situation, and intensity of use” (p.3).

1.2. Students and podcasting

Research on technological tools has support the fact that individual differences are among the most important reasons of sustained effort to work with these tools. Gender [18], attitude [11], experience and access [19], and technology literacy [20] have been reported to be influential in human computer interaction. In line with these studies, it is quite arguable that successful use of podcasting is related to individual characteristics of users. As a result of that, a string of studies has recently focused on this issue. By reviewing the existing body of literature on podcasting, Heilesen [17] came into conclusion that students have positive attitudes towards podcasting in general and “reports of rejection of podcasting are rare” [17] (p.3). Fernandez, et al. [3] evaluated the feelings, perceptions, and the reactions of students after the participants used podcast during one semester. Their findings revealed that students did not consider podcasting as a substitute for traditional resources, it has increased students’ motivation, and allowed for a diverse range of students skill and learning methods. Bolliger, et al. [9] did a research on students’ level of motivation with the use of podcasts in the online environment. They reported that overall, participants were motivated to use podcasts; however some differences were involved considering gender and prior experience of the participants. Walls, et al. [2] also did a survey on students’ readiness considering access, familiarity, experience, and attitude to use podcasts and reported that students may not be as ready or eager to use podcasting as much as educators think they are.

1.3. Country’s profile

Iran has a population of 72 million with adult and youth literacy of 82% and 96% respectively [21]. After an eight-year war, the Government of Iran embarked on five Five-Year Development Plans to develop the country’s education, health and social protection. Development of ICT infrastructures received attention from policy makers in the third and fourth Five-Year Development Plans (2000-2009). According to Iran’s National Document of Development [22] the government has to consider the following issues with regard to ICT in the course of these plans: ICT integration in schooling and higher education, expansion of e-learning and distance learning programs,
development of educational software for the national syllabuses, expansion of private sectors’ role in ICT infrastructure development, and increasing access to ICT tools for schools and universities. The result of investment in this section is now a wide access to the Internet (more than 25 million people) that has put Iran in rank 17 among top twenty countries with highest number of Internet users. All universities are connected to the Internet and most of them have wireless networking. More than 35 million people have mobile phone connection (www.Irantelecom.ir). Research also supports the fact that computer ownership and use is satisfactorily high among Iranian student population [23].

Notwithstanding a huge improvement in the development of ICT infrastructures and access in the country, this expansion confronts a major challenge, that is, insufficient research. Little is known about Iranian users’ needs, the type of problems they have in using ICT tools, their perceptions and preferences of ICT integration in education, and the type of ICT tools they use more frequently. As podcasting is one of the valuable technological tools in education, the aim of this study was to investigate the degree of Iranian students’ readiness to use podcasting. The findings would shed light on the challenges and opportunities of integrating podcasting in higher education in Iran.

2. Method

2.1. Participants

The participants of this study were 120 university students who were randomly selected from students of a small university in Tehran. The sample included 77 male students (64.2%) and 43 female students (35.8%). Of the sample 82.4% (n=98) were undergraduate students and 17.6% (n=21) were graduate students.

2.2. Instrument

Students’ readiness towards podcasting was assessed using podcasting readiness questionnaire adapted from Wall, et al. [2]. The questionnaire had 14 closed-ended items categorized under three sub-scales: students’ access (4 items), familiarity with podcasting (5 items), and experience (5 items). Students’ access was assessed by asking them about the type of devices they use, ownership of these devices, and capabilities/functions the devices have. Familiarity items focused on respondents’ knowledge in using podcasting. Students’ experience was assessed through asking them about the experiences they have had in their university courses with podcasting.

3. Results

3.1. Access

The results with access showed that a majority of students reported owning a portable device that can be used to play mp3 files. The following devices are used in order of frequency (respondents could check all that applied): mobile phones (74.2%), computers (43.3%), laptops (30.3%), portable mp3 player (30%), and CD player (8.3%). Only 0.8% of the participants (1 student) reported that he/she did not use mp3 files. Of the respondents 94.2% said that they owned a portable device that could be used to play mp3 files. More than half of them reported to have easy access to these devices (56.7%). They also said that their mp3 device had the following capabilities/functions (they could check all that applied): video (42.5%), phone (40%), and camera (36.1%).

3.2. Familiarity

The results with familiarity showed that 17.5 % of students did not know anything about podcasting, 25% of them knew a little about podcasting, and more than half of them (56%) were familiar with podcasting. Of the sample 6.7% considered themselves quite unknowledgeable in using podcasts, 23.3% a little knowledgeable, and most of them considered themselves fairly to very knowledgeable (70%).

The types of activities that students mostly did with podcasting included listening to music (61.7% of the respondents reported to listen to music once to three times a day) and watching short video clips (49% reported to do that once to three times a day). More than half of the respondents never listened to recorded books (50%), listened to
class lectures (58.3%), watched class lectures (57.5%), or watched other information related to their university courses.

3.3. Experience

With regard to experience, it was found that only 6% of the students never download a podcast, and 68% of them download podcasts fairly often and very often. Majority of them (80%) were subscribers of at least one podcast at the time of the study.

Of the sample, 37.5% have said that they had had classes that never provided them with podcasts that could be downloaded and used on a computer. 32.5% of them said that just one or two courses provided them with podcasts, 20% of them said that 3 to 5 classes provided them with podcasts, and only 10% reported that they had more than 6 courses that provided them with podcasts. 64.2% of the respondents said that if they had a class or classes that used mp3 or video files they would use them often and very often. 67.3% of the respondents also believed that these podcasts would contribute to their learning in the classroom quite a bit and a lot.

4. Discussion

The aim of this study was investigating the level of readiness of Iranian university students in using podcasts for educational purposes. The findings suggested that the sample had a satisfactory access to podcasts and ownership of portable devices to play mp3 files. As access is one of the most important factors in utilizing technology for educational purposes [19], it can be concluded that Iranian students are ready in terms of access and ownership to take full advantage of this new technology in their studying. However, students preferred to use their portable devices for purposes other than academic works. This is consistent with other research [2] that showed that students’ use of podcasts for educational purposes is limited. Moreover, listening to podcasts and viewing short video clips were among the activities students most often did with podcasting. This is also in agreement with findings of other studies [2].

Furthermore, Iranian students seem to be quite familiar with podcasting since 70% of the sample considered themselves knowledgeable in this regard. This familiarity may be related to Iranian students’ high access to the internet in the universities and dorms (free of charge), widespread use of mobile phones (the most frequently used portable device they used was mobile phones), and interest in listening to audio files (especially music as they have reported). However, this is in contrast with other studies that have reported some level of ‘unfamiliarity’ with podcasting among student population [2], [3], and [24]. This disagreement can be the result of academic environment, discipline, experience with podcasting, and use of technology in different situations [16].

However, the findings suggested that Iranian students don’t have much experience with using podcasting in their university courses. This can be related to the fact that most university instructors do not provide their students with podcasts of their lectures. So although Iranian students reported to have positive attitudes towards using podcasts for learning, they did not use them very frequently for educational purposes. It has been documented in the literature that Iranian university instructors’ limited use of technological tools in their courses is highly related to their computer literacy, attitude, access, and age [25]. So as students are quite familiar with podcasts and they are ready to use them for educational purposes, university instructors could not fulfill their expectation by integrating this tool into their classes. This shows that there is a gap between students and university instructors in terms of using technological tools in general and podcasts in particular.

Although suitable investment in developing ICT infrastructure in the country has provided satisfactory access to technological tools for university students, there is an unsatisfactory use of these tools for educational purposes. This implies that students’ readiness in terms of access, familiarity, and experience is not the only issue we face in integrating ICT tools in education. The degree of readiness of university instructors should also be investigated for successful implementation of ICT tools for educational purposes.
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