

A Video Platform to Produce, Support, and Share Educational Arabic Content

Athra Sultan Alawani, Alain Senteni, Abtar Darshan Singh
Hamdan Bin Mohammed Smart University (HBMSU)

200010125@hbmsu.ac.ae, a.senteni@hbmsu.ac.ae, a.singh@hbmsu.ac.ae

Abstract: Technology has contributed greatly to the evolution of modern educational systems. Video technology can be a genuine educational tool. Recently, free video-sharing sites has helped to create and share an unlimited number of short video clips. This unprecedented increase has occurred due to easy access to digital media anywhere and anytime. Despite the abundance of recorded video materials, there is a severe shortage in high quality video content in Arabic dedicated to educational purposes. Therefore, a novel, well-designed system is highly recommended to enable volunteering teachers to create relevant educational content in Arabic and share it readily and easily with other teachers. This paper proposes the conceptualization of a web-based video sharing platform supporting the United Arab Emirates (UAE) MOE curriculum. Its main purpose is to ensure a gradual build-up of high quality videos in a repository for both teachers and learners in UAE schools in a seamless manner and suited to the MOE needs. The recommended site will incorporate as many intelligent capabilities to enable self-regulatory push-pull content for teachers to use whenever there is a need.

Introduction

Since 1950, audio-visual materials have been considered as one of the main pillars for instructional processes. However, video components have made a great evolution in content and format. This has led to a global consensus that video is one of the fundamental tools in the process of any reform in education. It caters to different learning styles, increase engagement and motivation among students, and improves learning outcomes (Greenberg & Zanetis, 2012). Recently, web-based video-sharing sites such as YouTube has led to millions of videos clips available online uploaded for free distribution to the general public and covering a wide array of topics. However, they are not primarily educational. There are a lot of dedicated educational video sharing sites in addition to the educational channels in the general content video sharing sites. In the Arabic world, there is barely any educational video sharing platform except one initiative called Tahrir Academy in Egypt. Most Arabic video content and contributions are shared over YouTube platform. In the UAE, the use of video content learning has become a norm rather than an exception. Nevertheless, video content available in Arabic is scarce. More often than not, teachers resort to imported, non-standardized content, mostly in the English Language. Furthermore, this scarcity is aggravated by other technical issues of searching appropriate contents. Consequently, teachers spend more time and effort in order to come across a valuable content that meets their requirements.

One method that may be useful in mitigating the above issues is to use targeted crowdsourcing strategies as they seem to be the most accost efficient and effective methods. These methods engage teachers themselves to produce content in Arabic by illustrating their best practices. Motivation needs to be raised, based on the visibility, popularity, and credibility of these individuals. As such, we propose to create a platform to support this type of participation, collaboration, and sharing. The proposed educational video sharing platform is intended to be a comprehensive repository of educational resources for both teachers and students in UAE Schools. It will be compatible with local culture and norms and has features and facilities similar to popular video sharing sites. The design and implementation this platform will answer the following questions:

1. What are the platform design attributes that will be useful for UAE public school teachers?
2. To what extend (yet another) will the video sharing platform support the creation of video content?
3. What kinds of support can be provided to teachers to produce quality videos?

Literature Review

Web-based Video Sharing Trends in Education

Web-based video is every video viewed via the Internet and may be downloaded to a user's computer (Snelson, 2008). A video sharing service grants users the ability to upload video clips and users of the service can view, rate, and comment (Mitra et al., 2011). As a result, millions of video clips have become available online. YouTube, the main video sharing service provider has videos in all topics and languages. Vimeo is another famous web-based video service. It describes itself as "a respectful community of creative people who are passionate about sharing the videos they make" (Jisc Digital Media Guide, 2016). Snelson (2008) states that video sharing sites, originally intended for entertainment, are rapidly getting popular among academics. Other factors leading to the widespread use of online video technologies in education are the proliferation of portable devices, which made access to the Internet easy. In addition, there is an increasing appreciation for these types of technologies by young people led by their constant desire to interact and collaborate at any time beyond the classroom and schools' walls (Greenberg & Zanetis, 2012). The fast development of new technologies and low costs related to video recording, edition and production have motivated teachers and learners to create their own videos and share them with others. There should be also consideration of whether to view the video online or download it for later use, if internet access in schools is limited. For instance, YouTube does not allow direct downloading. Instead it gives the ability to embed video links in other websites. However, there are third party applications which allow downloading of YouTube videos. Currently, video sharing websites dedicated to educational purposes like YouTube educational channels, Khan Academy, TeacherTube, WatchKnowLearn, TED and Big Think.

The challenge to easily find suitable and relevant video materials for use in instructional process is the main concern of educators. Furthermore, the massive quantity of short video clips delivered through the web has led to the need for studying this emerging phenomenon and evaluating content quality (Snelson, 2008). Researchers in JISC found the main academic purposes for finding videos are: 1) Short, attention-grabbing clips, possibly abstract to the main teaching and learning activity. 2) Demonstrations. 3) Comparison of approaches (Jisc Digital Media | Guide, 2016).

Many video-sharing sites like YouTube need careful selection of educational content; because most of them cover an array of topics designed for the general public with minimal quality checks at the moment. Content quality is an important issue to consider when selecting web-based video content. There are numerous high quality online videos for educational use (Lang, 2010), however, some may be inappropriate, of poor quality or inaccurate and this is where educators need to pump their efforts in to assist practicing teachers. In addition, looking for suitable video in YouTube for example is time-consuming. Teachers can be easily distracted by the existence of interesting links, related videos and discussion threads. These issues should definitely be taken into account whenever the teacher plans to use a video from the internet: the time consumed, the learning objective and the resilience of the link (Jisc Digital Media | Guide, 2016).

Teachers need on going professional development to keep up with the rapid changes in multimedia and acquire the necessary skills to efficiently integrate videos in their everyday teaching practices (Greenberg & zanetis, 2012). It is not technology that creates effectiveness. It is rather an enabler to support the ability to build learning professional communities (Cisco, 2011). By introducing new technologies in the classroom, teachers need to devote more time to preparation and planning. The availability of video content in an online platform allows them to concentrate on pedagogy and lesson planning and developing supporting materials such as activities, handouts, slides and extra resources.

Furthermore, online repository of videos gives students additional tools to better control their individual learning process, allowing them to pause, rewind, replay, and download content for later review either in the classroom or in the comfort of their own homes. It also has opened up access to user-generated video and the "back and forth" of instructor-to-learner and learner-to-learner interaction, which stands in contrast to the old instructional video model (Greenberg & Zanetis, 2012). The instant access of learners to video platforms and video tools turns the educator's role upside down. They are easily able to perform their mentoring role both on-site and over distance surpassing geographical borders and time restrictions. As a result, the world is turning into a global classroom, providing an unlimited access to various content. Streaming video content is a basic element in the structure of this multi learning model (Simo et al., 2010).

Educational Video-sharing Platforms

Despite the popularity of YouTube, there are dedicated educational video sharing platforms like SchoolTube and WatchKnowLearn. They comprise thousands of videos aggregated from educators, YouTube, and the rest of Web. The videos cover most of school subjects, classified according to subjects and learning level. WatchKnowLearn hires a panel of educators and video experts reviewing videos before posting. TeacherTube is a new site, which resembles YouTube in sharing, production, and community-building aspects. TeacherTube founders claim that they "seek to fill a need for a more educationally focused, safe venue for teachers, schools, and home learners." TeacherTube is considered as online professional development community, where the members can: 1) upload, tag, and share videos, 2) attach educational activities, assessments, lesson plans, notes, and other file formats to videos, 3) search, view videos and create video groups for people with similar interests, 4) embed TeacherTube videos on other websites, 5) ability of saving favorites and create playlists, and 6) make their videos for public or private.

Over the world there are many useful and powerful educational video-sharing websites. For instance, Khan Academy is one valuable source for educators and learners. It comprises practice exercises and videos. Every learner obtains a personalized learning dashboard to help them study at their own pace in and outside the classroom. Learners can select subjects listed like science, computer programming, history, math, economics, art history and many more. The academy's mission is to "provide a free, world class education for anyone, anywhere."

In the Arab world, there is one initiative in Egypt which is Tahrir Academy. It is a nonprofit organization dedicated to spread education by creating learning experiences related to the Egyptian curriculum of both preparatory and secondary education. Its main goal is to empower students with the necessary skills to think, choose and decide. Tahrir Academy focuses on exposing learners to their high quality lessons based essentially on a game-dedicated platform to raise the interactivity of the student with their lessons. Nevertheless, it has a few videos in comparing with global video-sharing sites, but it is an ongoing initiative to grow.

Meaningful Learning with Online Videos

Online videos, including content found on free video-sharing sites has a great educational potential. As other forms of educational technology, the instructional value is largely dependent on how it is used (Snelson,2008). Karpinen (2005) debated that online videos can be integrated to promote meaningful learning. She conducted her research based on a constructivist approach of learning to identify the elements of meaningful learning through online and digital video. She suggested six characteristics which are: a) active, b) constructive and individual, c) collaborative and conversational, d) contextual, e) guided, and f) emotionally involving and motivating. At least one or more could exist in a meaningful video-enhanced learning situation.

The following is an explanation of the six characteristics of meaningful learning by using online videos:

Active: Online videos enhance students' motivation and engagement with the subject matter, improve media skills and critical view of media, and develop technical skills in creating media. Online videos offer learners opportunities to interact while learning. They can control their own pace of learning, reflect upon their own views and ideas, interact with other learners from all over the world, revisit learning points easily, and may create their own videos.

Constructive and Individual: In constructive learning, learners integrate new ideas into their previous knowledge. Accordingly, the use of audiovisual material has been claimed to help visual and auditory learning styles. However, the use of audiovisual material is argued to cater for various learning styles, and thus beneficial for learning without further specifying what is meant by a learning style (Reed, 2003).

Collaborative and Conversational: Modern social constructivist learning theories are increasingly focusing on the social aspect of learning, where learners work in learning and knowledge building communities. Interacting through the computer can be a very effective way of learning, the same for interacting around videos when using them perfectly to enable learners to show more collaboration and conversation. For instance, teachers can set up a rich classroom discussion. Meaningful and careful use of videos in classroom practices generates dynamic interaction of social and emotional aspects leading to positive attitude and high motivation to learn.

Contextual: Looking for authentic, relevant and realistic context is the challenge for constructivist educators. Contextual learning can be either situated in meaningful real-world tasks or simulated through a case-based or problem-based learning environment. The videos can play many roles in supporting contextual learning like, presenting and simulating real-world situation, representing the perspective, beliefs and stories of others, raising discussion among students and guiding for authentic tasks.

Guided: It is the designing of a supportive learning environment for the individual in relation to the learning task. Educators care for how a learning environment is designed more than what is taught. By integrating video material in learning activities, teachers have to consider several important issues while planning their lessons: class need, kind of interaction, kind of questions and kind of learning tasks.

Emotionally involving and Motivating: The effect of emotions on learners' outcomes is highly subjective. Soini(1999 cited by Karppinen, 2005) examined six qualitatively different categories with effect on certain situations that lead to good learning. They are: emotional involvement, reflection and feedback, the possibility to see things from different perspectives, autonomy, collaboration and dialogue.

Video has a potential power in raising the level of interest and enjoyment among students thanks to its multimodality, which simulates more than one category at a time. Videos provide several opportunities to learn about emotions like experiencing certain kinds of emotions, relaxation, pleasure and joy through entertainment, and interpreting emotions from behavioral cues, verbal, nonverbal, contextual, etc. Moreover, many educators highlight the ability of video to tell a story in a powerful and emotionally involving way.

Implementation

In our previous research titled “An investigation about the usage and impact of digital video for learning” in UAE found a strong relationship between the efforts taken by teachers and students' learning, engagement, and overall quality of the classroom experience. Teachers considered video one of the common technology used in their teaching practices. However, the effective usage of the videos in the classroom in the UAE public schools still has some difficulties, like the language, lack of Arabic content on the Internet, time-consuming to search for related videos and the technical and pedagogical support needed in order to produce their own videos or integrate them into classroom practices.

The researchers shed light on the need for a web-based video sharing platform that supports the curriculum in UAE public schools, highlights and appraises best teaching practices in Arabic. Besides, teachers need solid professional development programs to integrate pedagogically sound video technology with curricula as well as skills and knowledge on how to create videos suitable for technological platforms. However, the adoption of video technology in the classroom needs a clear vision of the educational system in order to provide new professional development programs and new tools like online platforms to make Arabic videos related to the curriculum at both teachers' and students' ends. Using videos in the classroom needs to be combined with supportive activities to engage students in learning in a motivating environment. Thus, there is a need to share best practices among teachers. For instance, they can exchange success stories and video recordings. All this could be done in one place that is a well-elaborated online platform. Although video is just one element in the intricacy of a classroom activity procedure it also is a necessary part of present and future learning approaches.

The suggested platform for this study is intended to be a comprehensive repository of educational resources for both educators and learners in the UAE Schools, supporting the different subjects. It aims at sharing best practices in using digital videos for teaching and learning. It allows personalized learning through the learner's ability to learn at anytime and anywhere. It contributes to the improvement of teaching practices and enhances students' achievements. It is expected to encourage lifelong learning, offer unrestricted learning and solve the issue of absence through the use of flipped classroom strategy.

The following are characteristics of the proposed video-sharing platform derived from a comparison of the best global educational video-sharing sites:

- Content creation is dependent on the contributions of volunteer teachers. They either upload a video they created or embed a link to a video after reviewing its validity and compatibility with curriculum.
- Uploaded videos are tagged with keywords describing subject, topic, level etc.
- A board of nominated experts is responsible for reviewing uploaded videos before final submission in the platform.
- Teachers and experts have the right to upload videos.
- The videos are classified according to topics and grade levels.
- Users can search, view, share, comment on videos and rate them.
- Users can watch the video online or download it to their devices.
- Students can upload their own created videos in specific sections called (Students' Creative Corner).
- The platform is compatible with any browsers and with any devices.
- The platform has an advanced search engine using some information of lesson plans as metadata attached to uploaded videos, in order to find accurate related videos in the database.
- It provides social sharing through Twitter, Facebook, email, etc. as in most social learning platforms.
- The videos are also submitted to crowd ranking by other teachers, students, or even parents. This creates a sense of competition for best practices and more followers.
- It includes an updated section for tutorials in creating and editing videos, like (Screen casting, adding subtitles, capturing from camera, etc.) in addition to some pedagogical strategies to insure high learning outcome by using video technologies.
- It has a list of the most popular and powerful educational video sharing sites as additional resources, besides, customized search engine.
- It supports all video formats in order to optimize playback performance over different internet connection speeds.
- It ensures the ability to contact admins for any suggestion, comment or complaint.

Based on the above, a framework is suggested as per Figure 1.

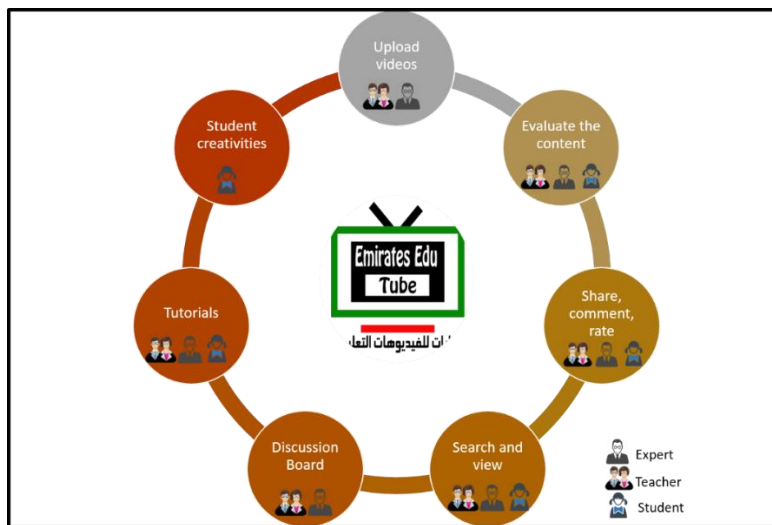


Figure1: Framework of EmiratesEdu Tube video-sharing platform

The planned platform provides the ability of sharing experiences among teachers by providing two features. First, teachers who upload videos can write their experiences in using this video. The other teachers, as well as students, can initiate discussions about this video in the comment area. Second, there is a specific discussion board to share experiences, best practices and learning resources, which serve teaching, learning and creativity. There are also special titles allocated for effective users like “pioneer teacher”, which is given to highly active users in order to encourage teachers for effectual participations. The platform is expected to be an innovative initiative in order to enhance teachers’ professional development, improve teaching practices, and save time and affords regard looking

for suitable videos for curriculum. All together this leads to improved learning outcomes and produce highly skilled students.

Conclusion

There is an opinion that video technology can bring a wide range of multimedia messages into the classroom and thus contribute to an improvement in learners' learning outcomes and skills. However, to be effective, the adoption of video technology in the classroom needs a prerequisite that is a clear vision of the educational system, new professional development programs and new tools like online platforms to make Arabic videos related to the curriculum at both teachers' and students' fingertips. The need to increase and motivate the teachers to share their experiences and knowledge is certainly there. A video-sharing user friendly platform would provide a forum to answer this need, and would empower teachers to create the videos that will enrich their own instructional practices while motivating them to share these practices with their colleagues. The effective contribution of teachers will result in an enriched platform with valuable contents. It will encourage the students to interact with the contents and in addition, will foster peer-to-peer relationship. After the platform is developed, the next step will consist of a robust and powerful marketing strategy with the support of UAE education stakeholders to promote its use and encourage teachers to add valuable contents and contribute to its growth.

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