YouTube Channel – a powerful tool for ICT in education

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Abstract

In this paper, the use of SAGARMOTI REVOLUTION YouTube© Channel has been used as an academic tool by lecturers. Engaging of lectures, learning tools and techniques inside the classroom has become an powerful tool now-a-days. In order to ensure, amongst others, motivation is required for the students of today.

In this paper, the use of YouTube© by lecturers in India is explored for use in the classroom. The findings of my survey indicated that most of the lecturers do use YouTube, but mostly as passive participants.

Keywords: SAGARMOTI REVOLUTION, ICT, Web 4.0 technologies, YouTube, Channel

Introduction

Now-a-days, more and more students at higher education institutions are using information technology (IT) and the institutions and colleges is also investing money in the latest version of technologies to meet the needs of their students and teachers.

Higher education institutions realise the popularity of Web 4.0 applications, and especially Facebook, Whatsapp that has become a blind element in our students' lives.

Online social networks have been developing at a high rate over the past three decades. Online social networking communities on the internet, such as Facebook, Whatsapp, Instagram, Snapchat, are an integral part of students' daily lives and most people's daily practices.

YouTube was created as a video-sharing service for everyday users, but has caught the attention of educators. In 2009, YouTube launched YouTube EDU which is a channel produced by colleges and universities. This channel grew in the first year to 30 colleges and universities and over 65 000 videos.
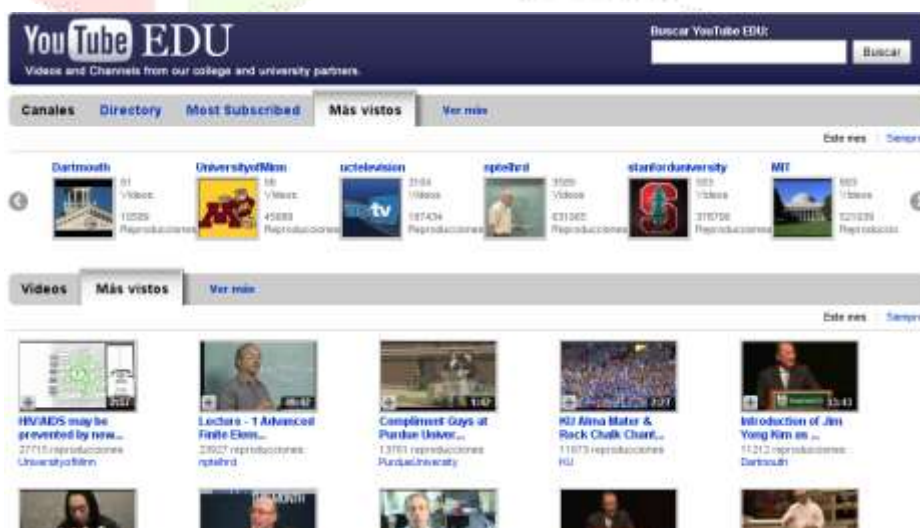
There arises certain general questions in ones mind. Questions such as

(1) 'What motivates a faculty member to use such a network (social network) as opposed to other forms of mediated communication?'

It is not clear, what drives lecturers to make use of new technologies or social networks for academic purposes or as extra mediums for teaching their students. Is it because the lecturer is creative and innovative? Or does the lecturer have the knowledge and skills to incorporate technological mediums as a teaching strategy and others don't?

(2) How do social networks affect students' learning?

Various lecturers need to understand the possible influence of new technologies such as social networking sites and mobile apps., on student learning, to be able to apply it correctly.

Social networks have growing rapidly and potentially stronger, because it offers an opportunity for students to share ideas, knowledge, individual and group activities.

Blogs, Comment, Wiki's and social network sites such as Facebook, have all been a part of the growing trend towards the creation and sharing of information. There is a need for an increased awareness of how these online social networks can possibly be applied as an academic tool to incorporate traditional teaching. The main problem that I had explored in this paper is how YouTube can be used as an educational tool. Due to the number of videos that is freely available on YouTube, it is important that educators explore the possible use of this medium.

In this paper as looking at the use of YouTube as one such online social network by ICT lecturers in India, by first discussing online social networking in education generally. A background of Web 4.0 and YouTube will be given. We also need to look at how we can engage students in learning and then the results of an online survey done will be discussed.

Literature Review

What is Web 4.0

Web 4.0 is an open, linked and intelligent web. Web 4.0 will also load web pages quicker with appropriate results. According to computer engineers Sareh Aghaei, Mohammad Ali Nematbakhsh and Hadi Khosravi Farsani, Web 4.0 will be comparable to the human brain. It is often characterised as the Web OS – the entire web being a single operating system where information flows from any one point to any other. Web 4.0 is also known as symbiotic web. The goal of the symbiotic web is interaction between humans and machines in symbiosis. The line between human and device will blur. Web 4.0 will interact with users in the same way that humans communicate with each other. Web 4.0 environment will be an "always on," connected world. Users will be able to meet and interact comfortably on the web through the use of avatars. According to futurist Daniel Burrus, phones and other devices will no longer require screens to navigate the internet. Other entertainment systems, such as televisions, will rely on holograms to communicate information. According to the founder ofSquidoo Seth Godin, Web 4.0 will require ubiquity, identity, and connection.
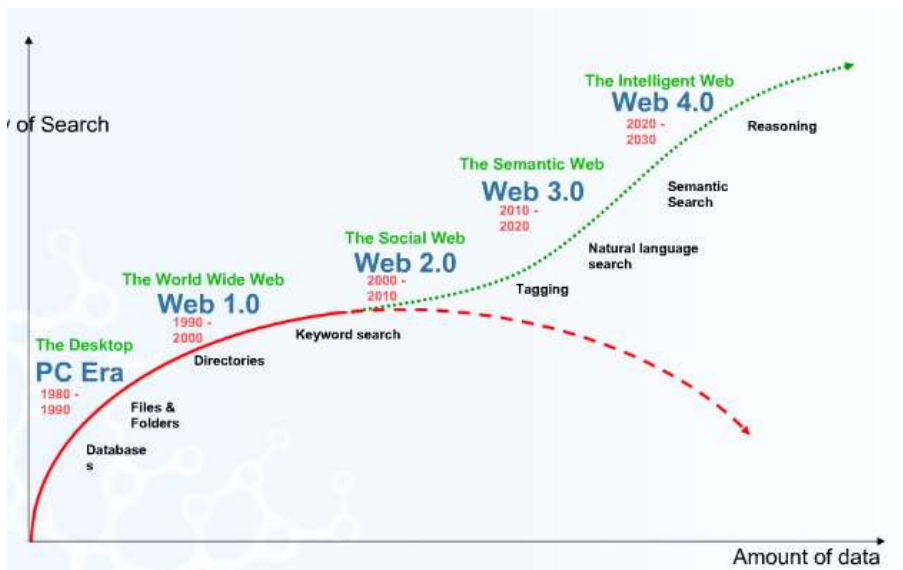
Web 1.0 / 2.0 / 3.0 Summary

Crawl	Walk	Run
Web 1.0	**Web 2.0**	**Web 3.0**
Mostly Read-Only	Wildly Read-Write	Portable & Personal
Company Focus	Community Focus	Individual Focus
Home Pages	Blogs / Wikis	Lifestreams / Waves
Owning Content	Sharing Content	Consolidating Content
Web Forms	Web Applications	Smart Applications
Directories	Tagging	User Behavior
Page Views	Cost Per Click	User Engagement
Banner Advertising	Interactive Advertising	Behavioral Advertising
Britannica Online	Wikipedia	The Semantic Web
HTML / Portals	XML / RSS	RDF / RDFS / OWL

YouTube

YouTube was founded in February 2005 by Chad Hurley, Steve Chen, and Jawed Karim and can be found online at www.youtube.com. It is currently one of the biggest hosts for online video content and the third most popular website after Google and Facebook. YouTube is a popular form of the Web 4.0 technology and access to YouTube and creating YouTube accounts for free of charge. Playlists and channels are some of the popular features which aid in the reduction of search time and playback efficiency. YouTube has grown steadily from 30,000 viewers in April 2005 to more than 100 billion video views per day in July 2017.

YouTube was bought by Google in 2006 and in 2007, YouTube had 20 million users and hosted about 60% of all the videos posted on the internet. YouTube is a participatory culture, meaning that it does not only host material like sports clips and music videos, but can also be seen as a repository for user generated video content. During 2009 YouTube had a total of 258 million users and it was assumed that 65,000 video clips were uploaded on a daily basis, and that every minute, 10 hours worth of video were uploaded. Currently, YouTube is a website which caters for high volumes of traffic, a platform for

broadcasting a media archive and a social network. As a social network, YouTube allows for sharing, uploading and viewing a wide variety of videos hosted online – these videos can be accessed via blogs, handheld devices and websites. In 2012, an average 48 hours of video is uploaded every minute and 3 billion views are generated daily.
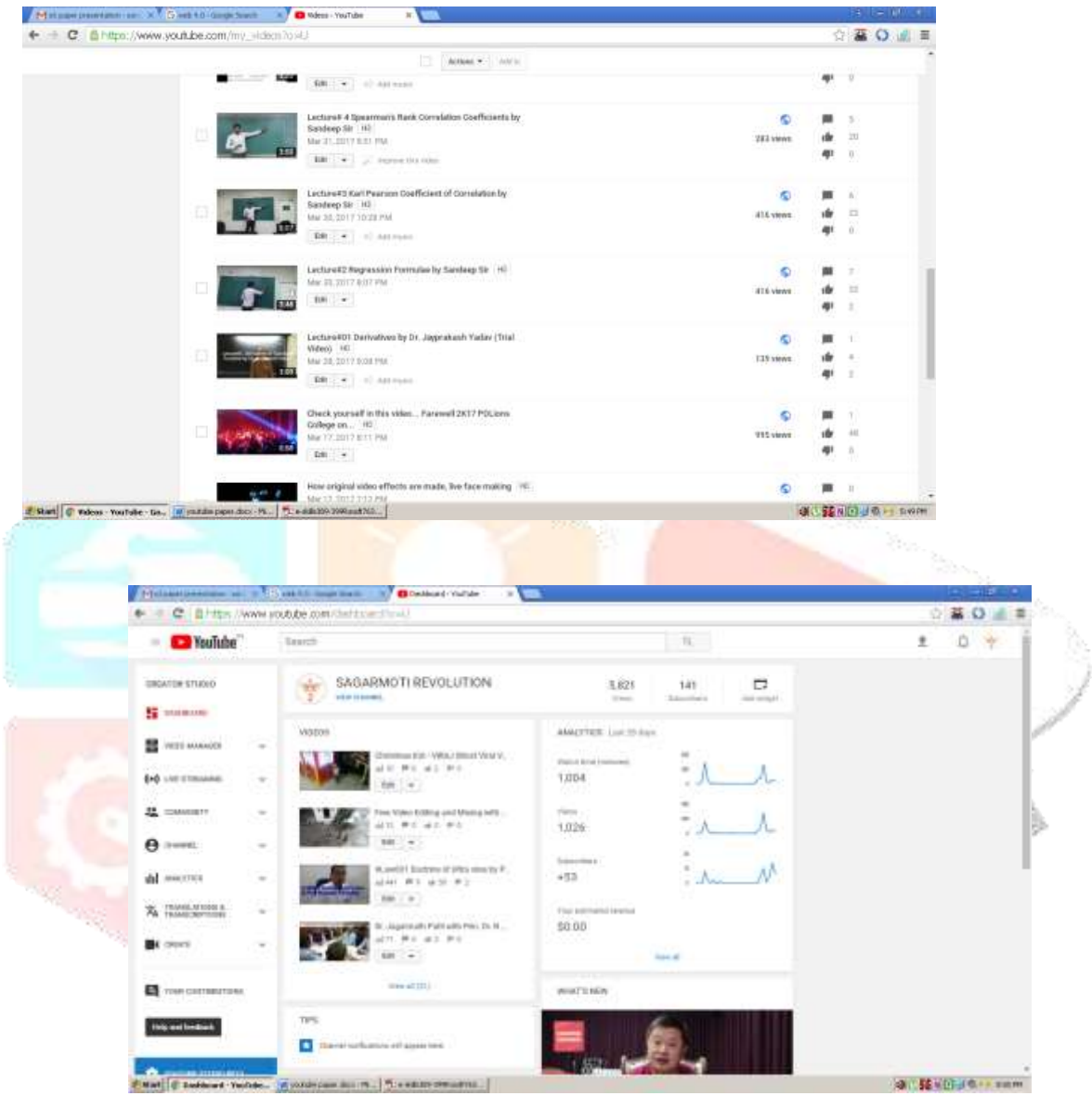
Youtube as an learning tool

Using YouTube in the classroom lectures is an innovative and cost-effective way to bridge the gap between students from the Net Generation and their teachers. It has a tool that has been utilized in nursing education. Because most students already use YouTube in their personal lives, seeing this platform in the classroom should not be unfamiliar to them – this also gives those that are unfamiliar with YouTube the opportunity to experience a new technology.

The website offers a wide variety of multimedia content that could be used in teaching and also there are various content could be teacher-created or general content that may be useful in illustrating key ideas and showing students some theoretical aspects of their courses in a practical setting. In additional, YouTube provides students with the ability to receive information from guest speakers, without actually having the guest speaker present in the classroom. Lecturers also have the ability to share the videos with their students allowing them to review what was covered in class at a place and time which suits them – all that is required is an active internet connection.

Effects of YouTube on student engagement

Harris (2011) conducted a study using YouTube in marketing, management and entrepreneurship courses and came to the conclusion that videos inspire learning, engagement and excitement in the classroom. The reason for this is because videos can attack emotions and can have a strong effect on a person's mind and senses. Educational videos also have the ability to heighten the student's interest in the subject and in turn, may motivate them to learn more. This motivation is an example of cognitive engagement. Displaying videos in the classroom also fuels additional discussion amongst students and aids in enhancing behavioural engagement.

These findings coincide with those made, who also convey that videos are powerful discussion catalysts. It is important to illustrate that videos in the classroom are meant to stimulate discussions amongst students, and not become a substitution mechanism for discussion. "Video is not an end in itself but a means toward achieving learning goals and objectives". YouTube's ease of use makes one believe that teachers are no longer necessary, however, teachers do still play a vital role when incorporating YouTube and videos in the classroom, because they are the ones who choose the appropriate videos, initiate and guide discussions to meet a certain aim. Students feel that the combination of asking questions, offering feedback and the additional commentary of the lecturer somehow "adds" to the quality of a video. This is an example of emotional engagement in practice.

Limitations and challenges of YouTube as an ICT in education

YouTube, just like most technologies also has constraints and disadvantages. Because YouTube is an environment where every user is free to share what he or she wants, this can create a scenario where student's access misleading, incorrect or potentially harmful information. This can occur, since YouTube has no formal quality regulations. It is important that educators and students research the credibility of any multimedia which they intend to use for educational purposes to avoid the spread of misinformation. This will also help students in identifying whether or not information is relevant and unbiased. Prior to displaying videos in class, faculty must review the entire clip for language and content to ensure its relevance and reliability.

Using YouTube in the classroom can also pose as a challenge, because locating appropriate and class-related material in YouTube's huge video storage can be both difficult and time consuming, especially if the lecturer has no specific videoclip in and also some of the specific material. It has also been mentioned that search efficiency can be improved by searching personalized YouTube pages with similar content or by using appropriate descriptive key words. A further limitation in using YouTube in education is technology availability. It has been stated that this can be due to having limited bandwidth, the institutions proxy and firewall settings or the general lack of hardware in the classroom. Limited bandwidth happens to be a common issue in India. It must also be noted that videos are not always available and can be removed from YouTube for a number of reasons for some security and might be some other genuine reasons.

Further important challenges associated with using YouTube in the classroom are intellectual property and copyright laws in India which has to be followed strictly. It is therefore recommended that faculty include a disclaimer for each video link in the course outline, state that the content of the material is from YouTube and consult with the appropriate officials prior to displaying the video in class as it may be strictly prohibited in certain areas or regions.

Student Engagement

Student engagement has been defined and measured in numerous different ways over the past two to three decades. It had been stated in earlier definition to focus on the behaviour and participation of students. Newer definitions for engagement incorporated with the concepts of emotional and cognitive processes. Trowler's (2010) defined for student engagement is "the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities". From this new definition, scientists have begun to view student engagement as a multidimensional construct which reflects on both internal and external factors.

The three dimensions associated to student engagement are elaborated below:

• Behavioural engagement refers to a student's ability to abide by behavioural norms,

which include attendance, attention and effort.

• Emotional engagement focuses on the extent to which a student experiences affective reactions, which can include interest, enjoyment or a sense of comfort towards educators or

extracurricular activities.

• Cognitive engagement covers a student's competency and willingness to learn and establish

Goals.

Conclusion and Recommendations

To be able to answer the research question:

For which purposes do lecturers make use of YouTube?

We found that most Indians ICT lecturers use YouTube for social and academic purposes.

Most of them are passive participants and do not post their own videos or participate in the conversations.

The second research question was:

Do lecturers apply YouTube as an academic tool to supplement their teaching strategy?

The analysis of the data suggested that only one third of the ICT lecturers make use of YouTube as a teaching tool, but two thirds of them indicated that they think an online video tool will be useful in the teaching environment. Most of the lecturers was undecided whether they can use YouTube to facilitate group work or online discussions.

What we realised looking at the results from the online survey is that we need to delve deeper into the reasons why ICT lecturers are not taking YouTube seriously as a teaching tool, while most of them felt that it will be a useful tool. We recommend that we conduct focus group discussions and interviews with ICT lecturers to further explore the use of YouTube in our teaching practices.

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