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A content analysis in the studies of YouTube in selected journals

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Abstract

This paper provides a review of research trends and content analysis of studies in the field of YouTube that were published in seven major journals: *Turkish Online Journal of Educational Technology* (TOJET), *Educational Technology & Society* (ET&S), *Educational Technology Research & Development* (ETR&D), *Computers & Education* (C&E), *Learning and Instruction* (L&I), *Australasian Journal of Educational Technology* (AJET) and *British Journal of Educational Technology* (BJET). These articles were cross analyzed by published years. Content analysis was implemented for further analysis based on their research topics, issues category, research settings and sampling, research design, research method and data analysis. The results of the analysis also provide insights for educators and researchers into research trends and issues related to YouTube.

Keywords: YouTube; trends; content analysis.

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1. Introduction

YouTube is the world's most popular online video site, with users watching 4 billion hours' worth of video each month, and uploading 72 hours' worth of video every minute (YouTube, 2013). YouTube began in February 2005 and was founded by Chad Hurley, Steve Chen, and Jawed Karim who named it "YouTube.com". Through the YouTube platform, people started to create a video-sharing website on which users could upload, share, and view videos.

Since then, YouTube has gained an audience of billions of users including educators and scholars. While the academic literature provides some evidence that YouTube has been studied and written about, little is known about priorities for YouTube research. This study employed trend analysis and content analysis method to obtain data on research topics, issues category, research settings and sampling, research design, research method and data analysis on articles published regarding YouTube in selected journals (Cheung & Hew, 2009).

Having started in 2005, YouTube has developed into a prominent online video-sharing destination. The millions of video clips on YouTube represent a broad spectrum of user interests including those of educators, scholars and researchers. YouTube EDU (http://www.youtube.com/edu) illustrates a portion of the growing academic presence on YouTube as colleges and universities establish institutional channels through which they share videotaped lectures and campus events. YouTube has become a topic of discussion and inquiry within the scholarly literature as educators and researchers grapple with questions about the possibilities and problems associated with social media (Chenail, 2008; Snelson, 2009, 2010).

1.1 Research Objectives

This paper is aimed at evaluating and identifying the trend and content analysis of studies in the field of YouTube that were published in seven major journals: Turkey Online Journal of Educational Technology (TOJET), Educational Technology & Society (ET&S), Educational Technology Research & Development (ETR&D), Computers & Education (C&E), Learning and Instruction (L&I), Australasian Journal of Educational Technology (AJET) and British Journal of Educational Technology (BJET). These articles were cross analyzed by published years. Content analysis was implemented for further analysis based on their research topics, issues category, research settings and sampling, research design, research method and data analysis.

The objectives to be achieved through this study are as follows:

1. What are research topics, research settings and samplings related to YouTube have been published in seven journals over the last 6 years?

2. What are the main issues categories and sources of articles related to studies on YouTube in the seven journals between 2007 and 2012?

3. What types of research design, research method and data analysis have been applied in the related article of YouTube?

1.2 Review on Studies of YouTube

In their research paper Mullen and Wedwick (2008) say that modern technology should be implemented into classroom instruction in order for students to develop the skills needed in our new digital society. Technology is considered as a major part of every aspect of our lives; it is no wonder that it is being seen more and more in

schools. Educators have a responsibility to prepare students for the future and technology is a very real component of that future. The phenomenon of technology and preparing students for the future is at the forefront of education. It has become such an important topic that the New York State Department of Education has developed standards for educational technology. Over the past decade, these standards have been developed not only to implement technology into the classroom, but to ensure that by the end of eighth grade all students are computer literate ("Education technology" n.d.).

Incorporating technology into the classroom is not only for the benefit of the students, but for the benefit of the teachers as well. Technology can be used to help teachers be more interactive, effective, and engaging (Yu & Smith, 2008). According to the New York State Department of Education, educational technology is defined as "using multimedia technologies or audiovisual aids as a tool to enhance the teaching and learning process" ("Definitions and terminology" n.d.). Additionally, technology allows teachers to reach out to different types of learners (Gorder, 2008). Not all students learn the same way; with technology use teachers can adapt their lessons to a multitude of student needs. With such a mutually beneficial relationship, teachers should be willing to integrate technology into classroom activities. According to Juhasz (2008) YouTube is providing "access to what exactly? Democratization of what really?" The claims of Web 2.0 are only relevant if you happen to have a computer with broadband connection, and the majority of people in the world have no such luxury (Steven, 2003).

Although Web 2.0 holds some exciting possibilities for all areas of community media, and the sector is best placed to harness its full potential, new technologies can simply put a new face on an old problem (Juhasz, 2008). At the moment, rather than video tapes on the shelves of production companies gathering dust, the new trend is to upload the video onto YouTube for all the world to see, and let it sit there online, gathering "cyberdust".

Mullen and Wedwick (2008) wrote that anything from a music video to a political speech to an amateur movie can be found on YouTube. With such a wide range of applications, teachers are just beginning to unravel the potential benefits of using YouTube during a lesson. Anyone who accesses YouTube can search the large database of videos for his particular need, or a user can set up an account and save selected videos to that account (Mullen & Wedwick, 2008). If teachers search for videos in preparation for their lesson, they can save the video to the created account, thus eliminating time spent in class to search and select the correct video.

2. Methodology

This study examines related research relevant to YouTube in education in seven selected journals from 2007 to 2012. The seven selected journals were: *Turkish Online Journal of Educational Technology* (TOJET), *Educational Technology & Society* (ET&S), *Educational Technology Research & Development* (ETR&D), *Computers & Education* (C&E), *Learning and Instruction* (L&I), *Australasian Journal of Educational Technology* (AJET) and *British Journal of Educational Technology* (BJET). The journals chosen are widely accessed and have high impact factor based on the 2011 Institute for Scientific Information (ISI) Journal Citation Reports and based on its impact factor as released by Thomson Scientific 2011 Journal Citation Reports. There were a total of 4,319 document items from 2007 to 2012 published by these seven journals. Only papers identified as being of the type "articles" in the seven journals were analyzed. Publications such as "book reviews", "letters", and "editorial materials" were all excluded from this study. Finally, two research based articles related to YouTube were found from these journals. As a study on preparation of basic knowledge in the field of YouTube based learning which is still new in the context of education in Malaysia, this study was implemented in a limited scope. Two approaches to analysis were used in this study, namely trend analysis and content analysis.

The different databases were chosen due to the availability of certain journals and accessibility of the abstract and full text for the selected articles. The databases were; EBSCOhost, ProQuest Education Journals, Science Direct, Springer Link, Web of Science and Wiley Online Library. One search engine was also used for the purpose above. The search engine used was Google Scholar.

The first procedure in conducting this research is setting three items to search for the related articles in all databases above. They are: (1) Selected Journal Name for Journal Name, Publication Title or Journal/Book Title column, (2) YouTube for Topic or Title column and (3) 2007-2012 for Timespan, Year or Coverage column. This step is important to ensure standardization in order to search the related articles in spite of the different interface between all databases.

In total, 66 articles were identified from the first procedure. The next procedure consists of further comprehensive review which needs the researchers to examine the 66 articles carefully to determine the articles actually related to YouTube. Finally, a total of two articles were selected for the analysis.

2.1 Trend Analysis

Trend analysis of an article can show the periodic discussion taking place in a knowledge discipline (Erford et al., 2010). In the analysis of trend and frequency, justification for article selection is found in the seven journals. Descriptive statistics are used to analyze the articles related to YouTube published in the seven journals over a 6 year period from 2007 until 2012.

2.2 Content Analysis

Based on content analysis or the process of summarizing and reporting of written data (Cohen et al., in Cowan, 2011), the research topics in the articles selected for analysis were categorized according to key words in the given abstracts, issues discussed as well as research scope. Throughout the data analysis carried out, each category identified was further clarified using thematic analysis. At the end of the analysis, the categories of the articles are as follows:

1. Research topics
2. Issues category
3. Research settings and samplings
4. Research designs
5. Research Method
6. Data Analysis

3. Findings

3.1 Frequency and Trend Analysis

Based on frequency analysis, there were two articles listed in the shortlist related to the topic of YouTube. These two articles were in the *British Journal of Educational Technology* (BJET) and *Computers & Education* (C&E) for the period 2007 until 2012. Analysis of number of articles based on yearly periods is given in Table 1.

Table 1: Number of Articles Related to Studies on YouTube According to Selected Journals

Journal	Frequency	References
BJET	1	Chareen Snelson, Kerry Rice & Constance Wyzard, 2012
C&E	1	Karsten Krauskopf, Carmen Zahn & Friedrich W. Hesse, 2012

Analysis of the findings shows that frequency of articles related to YouTube are started to be researched in *British Journal of Educational Technology* (BJET) and *Computers & Education* (C&E). *Turkish Online Journal of Educational Technology* (TOJET), *Educational Technology Research & Development* (ETR&D), *Learning and Instruction* (L&I) and *Educational Technology & Society* (ET&S) and *Australasian Journal of Educational Technology* (AJET) have no research articles related to YouTube published within the period 2007 to 2012.

3.1 Content Analysis of Current Articles on Studies Related to YouTube

For the latest trend related to YouTube, this study also consider issues in the published articles in the seven journals, but only *Computers & Education* (C&E) and *British Journal of Educational Technology* (BJET) for the years from 2007 until 2012. Given the limitation of the date of publication, three articles related to YouTube were found. The selected articles were types of research based articles.

Research based articles are content analyzed based on several constructs such as title, source, sample, research design, instrumentation and type of data analysis used. Table 2 shows the result of content analysis of two selected articles related to YouTube according to research based articles.

Table 2: Content Analysis and Current Focus of Articles Based on Studies Related to YouTube

Article title	Research Topic	Issues Category	Research Setting and Samplings	Research design	Re-search Method	Data Analysis
1. Research priorities for YouTube and video-sharing technologies: A Delphi study	Areas in need of research	Obtain consensus from experts about areas that are most in need of research in video-sharing technology (Particularly YouTube).	17 experts Questionnaire in online	Quantitative Survey	Delphi Method	**Descrip-tive Statistics**
2. Leveraging the affordance of YouTube:	Potentials of digital video technology	To integrate teacher knowledge of a technology with their professional	This study was administered online and participants	Quantitative Survey		**Descrip-tive Statistics**

The role of pedagogical knowledge and mental models of technology functions for lesson planning with technology	in school-based education	knowledge about teaching. This paper described mental models of YouTube, lesson planning for using YouTube, barriers to using YouTube in the "ideal" way and mental models as mediators of pedagogical knowledge	were recruited via a German online forum for pre- service teachers. Sixty (60) pre-service teacher users of the forum answered the questionnaire

3.3 Content Analysis of Source of Articles Based on Studies Related to YouTube

The first article, "Research priorities for YouTube and video-sharing technologies: A Delphi study" is written by Chareen Snelson, Kerry Rice and Constance Wyzard and was published in the *British Journal of Educational Technology* in 2012. The second article, "Leveraging the affordance of YouTube: The role of pedagogical knowledge and mental models of technology functions for lesson planning with technology" was written also in 2012 by Karsten Krauskopf, Carmen Zahn, and Friedrich W. Hesse in the journal *Computers & Education* .

Table 3: Content Analysis of Source of Articles Based on Studies Related to YouTube

Article title	**Source : (author, year, journal, page numbers)**
1. Research priorities for YouTube and video-sharing technologies: A Delphi study	Snelson, Chareen, Rice, Kerry, & Wyzard, Constance. (2012). *British Journal of Educational Technology*, vol 43 No 1, 119-129.
2. Leveraging the affordance of YouTube: The role of pedagogical knowledge and mental models of technology functions for lesson planning with technology	Krauskopf, K., Zahn, Carmen, & Hesse, F. W. (2012). *Computers & Education, 58,* 1194-1206.

4. Discussion

In this section, the authors summarize and discuss the major findings and the results are:

1. Two research topics covered about areas are most in need of research in YouTube and potentials of digital video technology (YouTube) in school-based education. The first article determined seven priority categories in YouTube over the next five years. Seven categories were identified and ranked in order of priority: 1) users,

groups and communities 2) teaching and learning 3) social/political impact 4) video creation/production 5) legal/ethical 6) media management 7) commercial interest. The second article found that participating pre-service teachers focused on YouTube as an audio-visual medium and as a searchable database with additional Web 2.0 features.

2. The research setting and sampling of the article title Research priorities for YouTube and video-sharing technologies: A Delphi study, are find 35 experts which had conducted empirical research studied and had multiple publications about YouTube. The 35 researchers were invited to participate in a Delphi study to determine YouTube research priorities. Then, 17 researchers are agreeing to take part in the study. The sample was involved in a three round Delphi process involving two cycles of online questionnaires and feedback reports. The optimal number of Delphi participants to include on an expert panel with suggestions from 10 to 30 (Anderson & Kanuka, 2003). The setting and sampling of the second article was administered online too and participants were recruited via a German online forum for pre service teachers. Sixty (60) pre-service teachers who were forum users answered the questionnaire.

3. The main issues categories and related to studies on YouTube in the seven journals between 2007 and 2012 are about to obtain a consensus from experts about areas most in need of research in video-sharing technology (particularly YouTube). The second article describes mental models of YouTube, lesson planning for using YouTube, barriers to using YouTube in the "ideal" way and mental models as mediators of pedagogical knowledge.

4. The research design for both articles is survey design. Research design of these articles are quantitative survey undertaken through online questionnaire.

5. Research method for first article is Delphi Technique which is to obtain consensus of experts in a three round Delphi process. The research method for the second article is survey technique using web based questionnaires (online) which consisted of three parts. The participants were recruited via a German online forum for pre-service teachers (http: //www.lehramtforum.de). Sixty pre-service teacher users of this forum completed the questionnaire. All participants will become educators at the secondary level. The three part questionnaire contain demographic questions (age, gender, high school grades), two scales measuring their general pedagogical beliefs and open questions.

6. Data analysis of these two articles involved descriptive statistics. Descriptive statistics refer to measures of central tendency or location (median, mean, mode, percentiles, etc) and measure of variation or spread (range, variance, standard deviation etc), graphs and charts are also useful tools to understand the characteristics of each variable (Rasimah, Puziwati, & Norizam, 2000).

5. Conclusion

In conclusion, this study reviewed seven selected journals published within six years between 2007 and 2012. These YouTube articles related only started to be studied of late, by 2012. This study could be affected by the setting of the studies based on their research topics, issues category, research settings and sampling, research design, research method and data analysis. Furthermore, there will never be a fit finding on the same issues researched and further studies always be needed to fill in the gaps between the last and the current studies. Frequency studying of YouTube increases in the current issues (2013). Study of YouTube can attract other researchers and will give more results besides affecting our educational system.

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