

Impact of YouTube Tutorials in Skill Development among University Students of Lahore

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Abstract

YouTube is becoming part of popular culture. To explore this advanced advent of technology in learning prospect, this study aims at finding the popularity of the YouTube tutorials among youth, along with their dependency on these videos and their usefulness. The focus of this research paper is on learning skills by watching YouTube tutorial among university students of Lahore, Pakistan. Software learning skills development has been analyzed among the students of 18-22 years. The respondents of the study were students of leading universities of Lahore. Survey method has been used to gather data and statistical linear regression analysis has been applied in order to test the hypothesis of the study. Results conclude that there is overall a positive impact for skill development on youth. YouTube tutorials help in understanding and building software aptitude among youth. Further the results indicate that tutorials may prove helpful in order to enhance students' academic performance in the future.

Keywords: YouTube, Tutorial, Software Skills.

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Introduction

Pachuri and Chauhdary (2011) defined “educational technology” as collection of sources that are useful for the students in advancing their knowledge and learning. It is subjected to the means of “technology”. The latest technological mediums supported by internet like Smartphone and online and offline games are potential tools for learning that are gaining attention. (p.1)

Pachuri (2011) stated, “E-Learning driven world is experiencing new set of skills, (core generic and professional), to be included in the prospective education to contribute at global scenario” (p.172). YouTube is among the most used website on internet for video dissemination. It has over a billion users and created a new room for digital profession. Vloggers create channels providing the viewers an informal learning environment and feasibility. Such feasibilities are utilized as “how-to-tutorials” and gave rise to an emerging trend of learning through YouTube tutorials (Bhatia, 2018, p. 82).

Nasir and Bargstad (2017) elaborated the importance of videos as teaching tool as it has the potential to grab the attention of the learners with visuals and motivate them (p. 1090). A “tutorial” is broadly defined as a tool for providing information with easy tips to be followed and learning by imitating the procedures as described. YouTube has “tens of thousands” of tutorials in the video format with “how-to” scheme for learning of use of hardware and software only (as cited in Nasir, 2017, p. 1090).

YouTube is in the top biggest online databases helpful to access the video tutorials developed by and for the users on diverse topics. Many foreign universities utilize YouTube videos for class room learning. Seeking help through tutorials from YouTube is emerging in Pakistan as well but this new trend has not been measured on research grounds. YouTube is emerging as popular web 2.0 technology globally. Apart from entertainment it is being used for education and learning purposes as proposed by the study “Learning through YouTube” by J. Jacob Jenkins and Patrick J. Dillon in 2014.

According to Joshua Hardwick “YouTube is the most viewed website with more than 1.7 billion estimated monthly views from organic search. Keeping that in view US population is 329 million, this means every person in the US clicks on a YouTube result 5.19 times per month, on average.”

This study is aimed at observing YouTube’s impact on university students of Lahore for developing skills (software learning) among them

through watching video tutorials. The study is carried out with objectives to;

Find out the popularity of these tutorials among youth.

Find out the dependency of youth on software learning tutorials available on YouTube.

Find out the usefulness of software learning tutorials on YouTube for youth.

The hypothesis for the study is;

H₁: Students use YouTube for their educational needs.

H₂: YouTube tutorials are developing software skills among students.

The study seeks to answer how much these tutorials are popular among youth? How far watching a tutorial helps the students to develop skill in that software? Do students rely more on YouTube tutorials than classroom lecture? Do these tutorials help students in their academic performance? And do YouTube tutorials help in developing understanding about software?

Literature Review

YouTube has many videos about case teaching for the online courses. The evaluations of the videos by 48 students progressed in achieving “skills in working with other as a member of a team” and “expressing my self orally or in writing”, majority of them made “exceptional progress” (Greena, 2018). A noteworthy number of learners depend on “YouTube” for finding the solution to their problems and questions related to study (Moghavvemi, 2018).

The creation of video tutorials is based on planning, creating, publishing, promoting, assessment, writing a clear script, limiting tutorial to 1-2 minute (Davis, 2017). “Verbal instructions” are the source of directions for the workers to do something practically and “video instructions” eliminate the possibilities of inadequacies in work with a simple to understand “how-to” design that is a better instructional method (Nasir, 2017).

Technology has also assisted the domain of education for the creation of educational messages and their dissemination through internet for self driven learning purposes (Chintalapati, 2017). There are different Web 2.0 tools to be used for learning. LibGuides and/or YouTube provide instructions to users in academic libraries (Kentonb, 2016). YouTube videos engage more students, provide better understanding and satisfaction for student’s sensitivity of learning ability (Buzzetto, 2015).

Videos and “podcasts” are significant considerations after the advent of technology as it has converted the tutorials into “short videos” (Dalal, 2014).

YouTube is used as an additional tool while delivering lectures on English novel at “Al-Majma'ah Community College/Al-Majma'ah University” and it improves students’ achievement (Khalid, 2014). YouTube has an ample collection of videos on “ECG” that has both informational and also ambitious content (Taylan Akgun, 2014). Online “library skills training” is important in the era of flexible learning while the number of distant students is increasing (Dewan, 2013).

Perceived advantages of YouTube in the classroom are the video assistance in the learning, make it interesting and effective and also inspirational (Tamim, 2013). YouTube has potential uses in “social studies” instruction and as a training source in “elementary classrooms” (Cuthrell, 2011). YouTube has become an important source of homework assistance having the largest video database (Asselin, 2011).

YouTube supports the students for improving their literary knowledge in “Shakespeare” and making them acquire further about the traditional and “aesthetic value” of “irony” as they have been performing the Shakespeare’s content in form of a parody/drama YouTube channel and have been encouraged by the teachers as well (Desmet, 2009) The motives for watching YouTube videos can be a shared source of entertainment, social contact, “locus of control”, attention, and affection towards YouTube (Hanson, 2009).

The use of wikis, audio podcasts and social networking carried out in higher education institutions enriches students’ experience (Lee, 2007). A study at “Wilfrid Laurier University libraries” implanted to the “course management system” of organization (Bury & Oud, 2005) found instructional videos are helpful for learning and transferring specific skills to the task at hand (Burry, 2005).

Theoretical Framework

Uses and Gratification It is about the usage of media to fulfill the needs of the audience. The major needs are “knowledge, interaction, relaxation, awareness, escape and entertainment” that fulfils through media which they use for their daily communication and interpersonal relations. Blumler and Katz presented this theory in 1974 that is focused on the media users’ active role in consuming media. This is about the audience’s role rather than the media’s effect on the public taking users’ centered approach. This theory emphasis on the autonomy of audience

for being active and deterministic to use media in their own interests for different purposes.

It assumes that nothing is reality and final. The audience is free to choose and control the effect of media upon the selection of what they need to watch. This approach is near to human psychology of “needs, motives and influence”. The five broad categories of needs according to the theory are effective needs (emotional), cognitive needs (intellectual), social integrative needs (socialization), personal integrative needs (self-esteem and respect), and tension free needs (relieve stress). Audience use YouTube to gratify their needs such as learning something new (cognitive), entertainment through videos (tension free) and watching a drama (affective) or any other. Watching YouTube tutorials, where help those skills to learn they also have an impact on them that triggered the researcher to take out the study.

Uses and gratification approach is an audience centered approach, the theory relates to the topic in such a way that audience use YouTube to gratify their needs such as discussed above affective need, social integrative need etc. Now here we see that audience gratifying their needs through media i.e. in this case YouTube specifically, are also themselves impacted in any other way, which is in the given research the development of software skills through YouTube. Thus the audience switch themselves to YouTube in order to gratify their need for learning or developing a skill in a specific software by taking help through tutorials given on YouTube.

Media Richness Theory (MRT) was presented by Daft and Lengel (1986) and proposes that technology based channels of information are rich text sources than the other mediums. “Media richness theory claims that the effect is better when communicator use richer media” (Dennis & Kinney, 1998) and by richness means the ability of the medium to transmit the information from sender to receiver. It can be described as; telephone calls are less rich than video calling but more rich than emails as emails only have text and words, while a person can also hear the tone at a telephone call and the video call is the richest among three as it also shows the gestures and expressions of the other person while saying those words. Media richness theory is about that “richness in communication” and that the communication process should involve a rich source for “effective communication”.

It is demonstrated as the “ability of information to change understanding within a time interval”. Communication process takes time and goes through different framing techniques and methods so the

source of information should be rich enough to convey it properly. The presenter of the theory described the richness as function of media due to its “capacity for immediate feedback”, “the number of cues and channels available”, “variety of language” and “the degree to which the receiver can focus” (Daft & Lengel, 1986).

According to this theory YouTube is media that is information rich with unlimited videos in so many languages, instant feedback option through the comments and video content that is the most involving. The viewers can easily understand the message in the video with the help of the visuals with the voice over. It contains thousands of tutorial videos in almost every language for its audience.

Conversational Human Voice is a scale developed for the measurement of internet mediated communication and especially those supported by social media. It is an important scale to understand the favorable response in “computer assisted communications” (Kelleher & Miller, 2006). According to the scholars the company has better CHV if it is “open to dialogue”, supports conversations and gives instant response to the audience, accepts criticism and also maintains interaction between the corporate and public through the use of internet.

Methodology

The study of the impact of YouTube for skill development among university students of Lahore was quantitative research approach that is built on statistical analysis and survey. A questionnaire was planned for piloting questions from youth. The population of the study is university students i.e. youth (males and females) of Lahore aged between 18 and 22. The sample of 400 was selected using simple random sampling technique selecting students from universities of Lahore including Lahore College for Women University, University of Engineering and Technology, FAST-NUCES, Punjab University College of Information Technology, LUMS, Kinnaird College for Women, University of Punjab, University of Central Punjab, University of Management and Technology.

Results and Analysis

The study has found the impact of YouTube tutorials specifically for software learning on the University going youth of Lahore, in order to find that how much the Youth has become dependent on technology i.e.

YouTube tutorials in order to solve a problem or develop a skill, or get themselves learn anything which may be out the academic course sometimes.

The survey on the students (undergraduates) from universities of Lahore found that all of them were internet user and YouTube is their first preference when it came to video viewing and sharing. The survey results showed that dependency of youth on YouTube tutorials for moderate amount for learning had a cumulative percentage of 74.4 percent. It figured that 36.7 percent respondents say that they occasionally fulfill or gratify their cognitive needs through YouTube. Fulfillment of cognitive needs include watching news, DIY's, how to videos and tutorials, this also includes tutorials for available for learning a software.

The software learning tutorials are the source of learning skills for 28 percent of the total respondents as they rarely to get proper information from YouTube tutorials for learning software. Whereas 25.3 percent said that tutorial helps them understand a software in a moderate amount, whereas 28 percent said tutorial occasionally helps them understand a specific software. Talking about the usefulness of tutorials, apart from popularity, usefulness is the factor that helps determine the impact of a certain thing, which in this case are YouTube tutorials, 25% said they occasionally get proper information from YouTube tutorials whereas 10% said they get a deal of proper information from YouTube tutorials. Thus the analysis shows an overall of positive result.

Hypothesis Testing

Researcher has used SPSS for hypothesis testing and analysis using linear regression test to conclude the extent of a "linear relationship between a dependent variable and one or more independent variables". In the study the predictor (independent viable) is YouTube Tutorials and the outcome (dependent variable) comes to be Skill development. Linear regression is suitable to test hypothesis because researcher has to check the relationship between YouTube tutorials and skill development among university students of Lahore.

The first table of interest is the **Model Summary** table, as shown below:

Table 1

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860 ^a	.740	.739	2.697

a. Predictors: (Constant), YouTube tutorial

b. Dependent Variable: Skill development

This table provides the values of R and R^2 . The R value represents the simple correlation and is 0.863 (the "**R**" Column), which indicates a high degree of correlation. The R^2 value (the "**R Square**" column) indicates how much of the total variation in the dependent variable, Skill Development, can be explained by the independent variable, YouTube tutorial. In this case, 74.0% can be explained, which is considerably large.

The **ANOVA** table reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

Table 2

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13740.546	1	13740.546	1888.581	.000 ^a
	Residual	4838.269	665	7.276		
	Total	18578.816	666			

a. Predictors: (Constant), YouTube tutorial

b. Dependent Variable: Skill development

This table indicates that the regression model predicts the dependent variable significantly well. How do we know this? Look at the "**Regression**" row and go to the "**Sig.**" column. This indicates the statistical significance of the regression model that was run. Here, $p < 0.0005$, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable (i.e., it is a good fit for the data).

It means the null hypothesis has been rejected and the alternative hypothesis has been accepted. It shows that YouTube tutorials are developing skills among students. As in this case the p value is (.000) which is less than (.05) thus the statistical test applied for hypothesis testing is significant.

Table 3
Co efficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.074	.431		2.495	.013	.229	1.920
	YouTube tutorial	.815	.019	.860	43.458	.000	.779	.852

a. Dependent Variable: Skill development

Regression equation

$$\text{Skill development} = 1.074 + 0.815(\text{YouTube})$$

Reliability of Scale

According to Vagias & Wade (2008). Likert type scale response anchors have a good internal consistency. A Cronbach's analysis was conducted on five point Likert scale. It was found that the subscale's alpha level was .87, which indicates that the subscale has an adequate level of inter item reliability. See the tables below.

Reliability Statistics	
Cronbach's Alpha	N of Items
.876	19

Discussion

The answer to the question "how much these tutorials are popular among youth?" the study concluded that YouTube is popular overall but when specifically coming to the popularity of tutorial, the results show that 22.4 percent of the sample said that they have watched a great deal of YouTube tutorials for software learning. To be noted that the five point likert scale used in survey had the highest degree of as "a great deal". Thus, it is evident that the Tutorials are popular among youth.

The second question of the study is "how far watching a tutorial help the students to develop skill in that software?" has resulted in positive response as 31 percent respondents said that they think a skill can be mastered through YouTube Tutorials, 35.5 percent respondents said they get a moderate amount of education from YouTube tutorials other 12.8 percent respondents said that they depend a great deal on these tutorials for learning software.

The third question “do students rely more on YouTube tutorials than classroom lecture?” has found that majority of the respondents i.e. 24 percent occasionally rely whereas 9.9 percent said a great deal. The answer to the next question “do these tutorials help students in their academic performance” resulted in that 20.1 percent said they get a great deal of education, whereas 35.5 percent said they occasionally get education from YouTube. The last question of the study “do YouTube tutorials help in developing understanding about a software” got the response as 22.6 percent said they develop a great deal of understanding through tutorials.

Overall result indicates that dependent variable varies 74 percent by the impact of dependent variable, which means YouTube tutorials play important role in developing skills among the students.

Conclusion and Recommendations

The study of “Impact of YouTube tutorials for skill development among university students of Lahore” has found that YouTube tutorials do have a significant impact on the youth of Lahore including their dependency on the tutorials for learning, their cognitive needs, in learning a skill to develop understanding about a certain program or software from approximate beginner level. The hypothesis proposed for this study has been accepted based on statistical test analysis. Main focus of the study was to find popularity, usefulness and dependence of youth on these tutorials. All three factors have been evaluated through survey methodology followed by the theory of uses and gratification by Blumler. Findings show that overall youth has a significant impact on them regarding YouTube tutorials. YouTube being a part of advanced web 2.0 technology is gaining its roots strong in education purposes especially in the individual or intrapersonal aspect.

YouTube being a part of advanced web 2.0 technology is gaining its roots strong in education purposes especially in the individual or intrapersonal aspect. The video tutorials on the world’s largest platform are helpful for the students in learning skills. It confirms youth’s dependence on technology for their problem solving especially for academic development. Software learning tutorials are useful for educational purpose for developing skills and solving the issues they cannot solve themselves.

The researcher recommends the future researchers to continue this study in other dimensions. Other dimensions may include finding that extra need other than the 6 needs of the theory which persuades a person to watch different kinds of tutorials related to various branches and aspects of life. Also experiment based study can be done in order to have concrete results on how much watching a tutorial is effective in order to make a person or group of individuals develop aptitude. Now here raises the question that can YouTube in Future replace the setup of a classroom and a student Teacher relationship as online hybrid course learning is emerging with time.

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