

INVESTIGATING DIGITAL LEARNING MEDIA FOR SKILL ENHANCEMENT PROGRAMMES

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ABSTRACT

Digital learning media is a definite need for the current industry. Combining digital activities into the broader strategy becomes a challenge as the companies don't yet have strong digital capabilities. The study aimed to explore the students' perception and digital platforms towards the Effective Use of Digital media for Skill Enhancement programs of the educational institutes offering technical courses. The study was conducted to identify gaps in existing systems and effective use of digital marketing tools of various skill enhancement programs, which can be introduced by technical courses institute to enhance the profitability and brand image. The study employed Quantitative Methods and descriptive research for data collection and report compilation. The paper concluded the two factors, namely Job Specific skills and Careful Planning, that influence customer perception of online marketing for skill enhancement programs. The findings may contribute to the existing knowledge of e-learning technology as an educational resource. The results may also benefit the practitioners in customizing online programs in the institutions.

Keywords- Perception, Digital, Institution, Learning, Education

INTRODUCTION

Digital marketing tools are the definite need for the current industry, and combining digital activities into the companies' broader level can be challenging in the absence of substantial digital capabilities. Educational institutions are motivated by the exponential growth of educational technologies to perform with options to the orthodox classroom teaching methods (Favetto et al., 2003). Computer-generated Simulations, videodiscs, CD-ROM, Internet, and the World Wide Web are some of the interactive educational technologies suggested by the researcher (Cavanaugh, 2001). The most preferred avenue is web-based online learning for teaching and learning at a distance (Hurt, 2005). Online activities have become an integral part of any marketing and sales strategy.

Department of Business Innovation and Skills had surveyed in the UK and found that using digital learning in the education system is a long-term solution. The need to expand the digital capabilities in the shorter term is a necessity. Online media is the key to increasing capacities in exploiting digital opportunities in offering courses on digital and awareness actions through existing local private and third sector networks. The need to promote cybersecurity is also required.

The Capgemini report mentions the effect of digital technologies on the IT department and the entire organization and creates massive advances in digital skills. Online media offer academia an opportunity to connect learners in the online classes and to support in developing learner skills (Blaschke, 2014)

The digital power of platforms in the course delivery is unsurpassable. A brief plan of organizations is desirable to respond to customer queries. The skill enhancement programs need to be innovative in delivery format. The various tools of digital marketing are Content Marketing, Big Data, Email Marketing, Mobile Marketing, Social Media Marketing, Conversion rate optimization, Search Engine Optimization PPC and affiliate. Chaffey, in 2015, has suggested the top three digital marketing tools as Content Marketing, Big Data, and E-Mail Marketing.

Tedlow (2010) examined in his study the companies who look away and go into denial on the emergence of paradigms shift. Carey (2012) indicated that the Online Courses would change the future of higher education, namely MIT, Harvard, and other universities offer free MOOCs.

From the student's perspective, the earlier research that online courses are required for the institutes and course developers to customize their studies more effectively and enhance students' course satisfaction (Morss, 1999). The study further indicated the students of online learning courses show positive learning experiences. The advantages of online learning are flexible interactions and ease of use.

Literature Review

The study undertaken by Lai (2004) to comprehend the online course design interface on 140 students enrolled in either partially online or entirely online courses revealed that navigation of the sessions was smooth, and students were pleased with the online course design. Morss (1999) states that the students' perceptions of online course management systems found that the online environment enables them to concentrate and learn the subject faster.

Online learning adoption in higher education grows owing to its flexible learning environment where learners can collaborate and communicate irrespective of specific time and location (Kundi& Nawaz, 2010). The study of 295 students in 16 online learning courses at two public universities in Taiwan identified seven factors that influence online learners' satisfaction, like instructor attitude, computer anxiety, course flexibility, perceived usefulness, course quality, perceived ease of use, and assessment (Sun, Tsai, Finger, Chen, and Yeh, 2007). Additionally, it disclosed that course quality is a crucial factor for the learners.

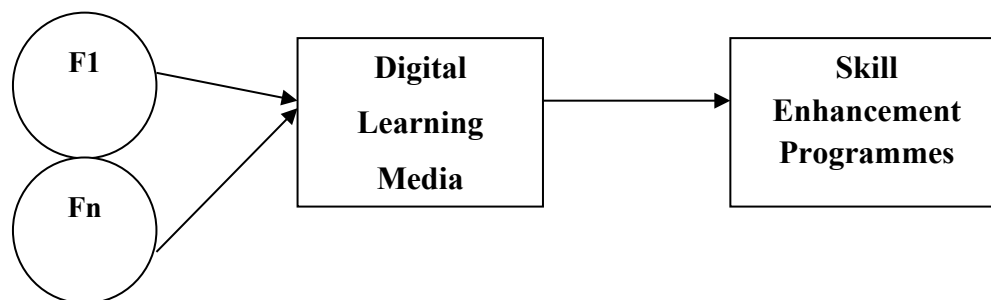
Bers (2010) contended that technological development aims to guide students in the complimentary use of technology to have more fulfilling lives for their future work or achieve innovative thinking to make the world a better place. The newness and the growing availability of computers have given educators a chance to design more on how to teach. (Paul A. Soukup, 2011). The delivery of digital media programs is guided by the framework that helps in implementation (Chien, 2012). Some of the e-learning methodologies are technology-integrated teaching methods, project-based learning (Epure et al., 2017). The support systems of digital learning are MOOC-massive open online courses, mobile learning (Xu, Hong, 2016). The teachers of digital learning methodology use increases in education as per research in the last three years. These technologies enhance students' engagement, and innovations such as mobile technologies, tablets, and smartphones' applications have become more and more popular among higher education students (Cruz et al., 2017). Edtech can produce data and become policy-relevant amid demands for evidence for what works (Jarke and Breiter, 2019). There were difficulties with securing student anonymity (Bayne et al., 2019). The study also focused on a conceptual framework that includes a broader view of teacher digital competence(Falloon,2020).

The rationale of the study

The research aims to identify the digital platforms available for educational institutions in delivering skill enhancement programs and their promotion. The study is focused on student opinions on digital learning and its role in skill enhancement programs. Students' expectations and experiences in the areas of course format, technological support, interaction with Faculty and peers, course flexibility and pace, assessment and feedback, and overall communication. The primary study aims to explore the differences in existing courses and various skill enhancement programs that can be introduced by educational institutes to enhance profitability and brand image.

Conceptual Framework-

Figure 1- Conceptual Framework of Digital Media for Skill enhancement Programmes



Research Objectives

This research explores the tremendous digital platforms available for the company in delivering skill enhancement programs and their promotion. The study will identify gaps in existing courses and effective use of digital marketing tools of various skill enhancement programs, which the educational institutes can introduce to enhance the profitability and brand image.

Methodology

Research Design

The study is descriptive. The data collection employed Quantitative Methods. The data collection was with the help of a structured questionnaire after pilot testing. The judgment sampling was applied to the segments of students studying in technical educational institutes based on their Under Graduate, Graduate, and Post Graduate Degree. The sample size was 500 and from Asia. The analysis was carried out using statistical techniques like factor analysis, independent t-test, chi-square, and SEM.

Sample Design

The sample size is 500, and the sampling techniques used for data collection are intercept sampling. The sample is collected from the premier educational institutes in India.

Questionnaire

A structured questionnaire has 16 statements on a 5-point Likert scale and five means 'strongly agree', and 1 for 'strongly disagree.' The Questionnaire had two significant sections. The first section intended to capture the respondent's demographic profile; the second part was related to the respondents' perception of digital learning effectiveness for skill enhancement programs. The work had applied the content check-in to its Questionnaire. Content verification of the Questionnaire was established by approaching academicians and corporate. Subsequently, the validity of the surveys was tested and administered.

Data Collection

Primary Data-

The self-administered Questionnaire was used to collect the Primary data and was designed explicitly for the study. The survey included questions related, namely, the five issues based on the sample's demographic characteristics, such as gender, age, and education level. The data from relevant secondary sources was also part of designing an appropriate questionnaire and gain deeper insights into the domain.

It was prepared to explore the essential factors while choosing courses of the educational institutes via digital media. Questions were also to know the satisfaction level of the existing customers on identified factors. The sample size was 500. The data was collected using judgment sampling by visiting educational institutions online.

Secondary Data-

The secondary data was collected from various reports, published material. Extensive literature has been reviewed from identifying the factors influencing the digital marketing tools for skill enhancement programs.

Data Analysis

The analysis was made, and the following table 1 mentions the chi-square test performed between digital learning and digital tools for skill enhancement.

Table 1: Opinion on digital learning platform * Digital tool for skill enhancement Crosstabulation

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.870 ^a	6	.014
Likelihood Ratio	16.028	6	.014
Linear-by-Linear Association	2.676	1	.102
N of Valid Cases	500		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.01.

Table 1 shows a relationship between digital tools for skill enhancement and opinion on digital learning platforms. The organizations must work on various digital learning tools for enhancing the views on the media.

Table 2: Customer Ratings on Digital Learning

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Digital learning is easy to use.	3.608	.9799	500
Digital learning provides an opportunity to work during the Study	3.756	.9199	500
Digital learning helps in Physical distance /residence in remote areas	3.832	1.0909	500
Digital learning helps in Professional development & continued education	3.808	.9321	500
Digital learning helps in Family and other social obligations.	3.700	.8784	500
Digital learning educates a large number of student	3.920	1.0236	500
Interactive Collaboration among students is facilitated by digital learning	3.910	1.0237	500
Students work in small learning group thru digital learning	3.738	.8803	500
Developing students reflective digital learning & critical thinking	3.972	.9722	500
Digital learning Provides more flexibility	3.748	1.0032	500
To implement digital learning, careful planning is required	3.732	.9153	500
For using digital learning awareness, training is required.	3.802	.9944	500
Digital learning is relevant for many occupations in a broad range of sectors	3.846	1.0041	500
Digital learning helps in developing job-specific skills	3.930	1.0292	500
Digital learning can be used in some similar occupations and sectors	3.812	.9372	500
Digital learning might require additional training to be used in a new job or work environment.	3.93	1.027	500

Factor Analysis

The factor analysis is meant to extract the factors that impact digital learning skill enhancement programs. The calculated Cronbach alpha is 0.936, which shows that the data are reliable (refer to table 4). The table indicates that the approx chi-square value is 6345.563 with 120 degrees of freedom, which is adequate. Hence, it implies that there is a significant relationship between the variables in the population. The KMO value is 0.914. It verifies that the sample is appropriate for factor analysis. Both the results, that is, the KMO statistic and Bartlett's Test of

Sphericity, indicate a suitable factor analysis model. In the table, the output of factor analysis can be observed. It means 57.2 % of the total variation. The initial extraction was rotated, and two factors were extracted from 16 statements, which imply inter-correlations between digital learning and skill enhancement. Table 4 shows the factor matrix with factor loadings

Table 3: Reliability of Data using Cronbach Alpha

Cronbach's Alpha	N of Items
.936	25

Table4: Factor Matrix

Variables	Factor Loading	Factor Name	
Digital learning helps in Physical distance /residents in remote areas (A3). Digital learning educates a large number of students (A6). Digital learning helps in developing job-specific skills(A14)	.818 813	Factor 1: Job-specific Skills	
Digital learning might require additional training to be used in a new job or work environment (A16). Interactive Collaboration among students is facilitated by digital learning (A7). Developing student's reflective digital learning & critical thinking (A9).	.791 .789 .779		
Digital learning can be used in several similar occupations and sectors (A15). Digital learning helps in Professional development & continued education (A4). For using digital knowledge, awareness training is required (A12).	.773 .631		
Digital learning provides an opportunity to work while Study (A2).	.621 .584		
Digital learning helps in Family and other social obligations (A5).	.534 .515		
To implement digital learning, careful planning is required (A11). Digital learning provides more flexibility (A10). Digital learning is easy to use (A1). Digital learning is relevant for many occupations in a broad range of sectors (A13). Students work in small learning groups through digital education (A8).	.787 .680 .678 .545 .537		Factor2: Flexible Learning

Discussion on Factors

Table 4 indicates that factors one and factor 2 contribute to influencing e-learning media for skill enhancement programs.

Factor 1: Job-Specific skills

From the study, Factor I with active factor loading suggests that students think that Digital learning helps in developing job-specific skills and can be used to educate a large number of students, including physical distance or residents from remote areas. Further digital education facilitates interactive Collaboration among students, which enhances reflective digital learning & critical thinking and can be used in several occupations and sectors. It is handy for professional development & continued education. Digital learning provides an opportunity to work while study and helps in balancing Family and other social obligations. It is noted that for using digital knowledge,

awareness training is required, and in the case of a new job or work environment, digital learning might require additional training.

Factor2: Flexible Learning

The second most crucial factor is careful planning. The study indicated that active digital learning requires careful planning. During preparation, it is apt to understand that most respondents prefer digital knowledge as flexibility in education exists, and it's convenient. The study concludes about the relevance of Digital learning for many occupations in a broad range of sectors. And students can work in small learning groups through digital learning.

The above study indicates that the institution's e-learning media has a significant impact on the development of skills accomplished by the center. The institution can give more emphasis to developing e-resources. This shows that institutions need to focus on the effective use of digital learning tools as an educational resource is not the only way institutions can succeed.

The following figure 2 shows the measurement model drawn using CFA with AMOS 21. The factors of job-specific skills and flexible learning have a significant impact on digital learning. The performance of digital learning platforms is determined by the factors derived in the study.

Figure 2-Structural Model of Factors affecting Digital Learning

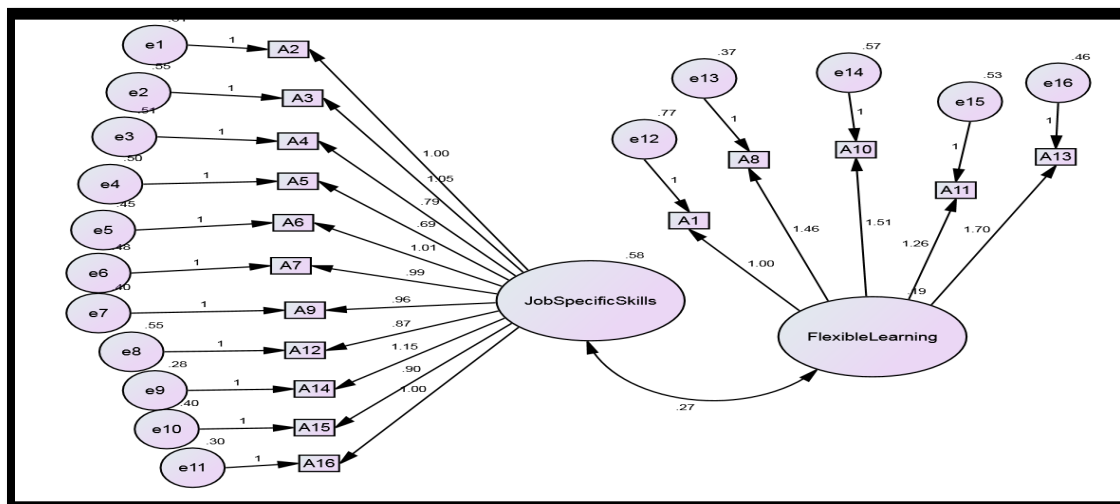


Figure 2 shows factor 1 with 11 items and factor 2 with five elements. The applied SEM also validates that the two factors are essential for enhancing the skill enhancement programs through digital media. Digital media adoption becomes convenient if flexible learning and job-specific skills are present.

Table 5-Case Processing Summary

		N	Marginal Percentage
Satisfacexistingofferings	Yes	129	25.8%
	No	113	22.6%
	Not Aware	258	51.6%
Valid		500	100.0%
Missing		0	
Total		500	
Subpopulation		308 ^a	

a. The dependent variable has only one value observed in 300 (97.4%) subpopulations.

Table 6- Likelihood Ratio Tests

Effect	Model Fitting	Likelihood Ratio Tests		
	Criteria	-2 Log Likelihood of Reduced Model	Chi-Square	df
Intercept	793.516	64.357	2	.000
A1	736.112	6.954	2	.031
A2	730.650	1.491	2	.474
A3	737.958	8.800	2	.012
A4	730.175	1.016	2	.602
A5	731.791	2.633	2	.268
A6	733.897	4.739	2	.094
A7	730.826	1.668	2	.434
A8	734.984	5.825	2	.054
A9	745.042	15.883	2	.000
A10	734.873	5.715	2	.057
A11	736.775	7.617	2	.022
A12	731.668	2.510	2	.285
A13	749.967	20.809	2	.000
A14	730.158	.999	2	.607
A15	729.288	.129	2	.937
A16	730.551	1.392	2	.498

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

Table 7- Parameter Estimates

Satisfacexistngofferings ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Intercept	-4.851	.872	30.947	1	.000			
A1	-.027	.133	.040	1	.841	.974	.750	1.264
A2	.159	.185	.738	1	.390	1.172	.816	1.684
A3	.565	.199	8.089	1	.004	1.759	1.192	2.595
A4	.012	.193	.004	1	.951	1.012	.693	1.477
A5	.042	.175	.057	1	.812	1.043	.739	1.471
A6	-.216	.205	1.111	1	.292	.805	.539	1.204
A7	-.134	.201	.445	1	.505	.875	.590	1.296
A8	.229	.206	1.237	1	.266	1.257	.840	1.883
A9	-.227	.205	1.221	1	.269	.797	.533	1.192
A10	-.007	.147	.002	1	.962	.993	.744	1.325
A11	-.433	.173	6.236	1	.013	.649	.462	.911
A12	.158	.174	.826	1	.363	1.172	.833	1.648
A13	.768	.175	19.182	1	.000	2.156	1.529	3.040
A14	-1.220	1.210	1.016	1	.313	.295	.028	3.166
A15	-.019	.202	.009	1	.924	.981	.660	1.458
A16	1.400	1.205	1.348	1	.246	4.053	.382	43.039

	Intercept	-5.317	.865	37.791	1	.000			
	A1	.387	.162	5.699	1	.017	1.473	1.072	2.024
	A2	.182	.171	1.133	1	.287	1.199	.858	1.675
	A3	.187	.190	.967	1	.325	1.205	.831	1.748
	A4	-.177	.186	.902	1	.342	.838	.582	1.207
	A5	.323	.203	2.527	1	.112	1.381	.928	2.055
	A6	-.443	.210	4.435	1	.035	.642	.425	.970
No	A7	.182	.206	.786	1	.375	1.200	.802	1.796
	A8	.488	.209	5.435	1	.020	1.629	1.081	2.455
	A9	-.823	.216	14.528	1	.000	.439	.288	.670
	A10	.443	.199	4.972	1	.026	1.557	1.055	2.298
	A11	.058	.194	.088	1	.766	1.059	.725	1.549
	A12	.275	.185	2.213	1	.137	1.316	.916	1.891
	A13	.265	.195	1.848	1	.174	1.303	.890	1.909
	A14	.085	1.530	.003	1	.956	1.088	.054	21.833
	A15	.063	.205	.093	1	.760	1.065	.713	1.590
	A16	-.277	1.527	.033	1	.856	.758	.038	15.128

a. The reference category is: Not Aware.

Table 7 again validates the results extracted from the exploratory factor analysis. The structural model displayed in figure 1 is formulated on applying Confirmatory Factor analysis and shows the model of Digital Media learning and enhancement of skill enhancement programs through online media.

Conclusion

The study has indicated that the development of job-specific skills is made possible by digital learning. The student portal is the best educational resource that may be used for developing skill enhancement courses in India. Cloud computing is the preferred digital tool for enhancing the efficiency of such a course. Most of the institutions in India are not providing enough platforms for their courses to be offered online. The student has an expectation from the institutions in their offering of existing classes online. Generally, digital learning is organized and managed at Faculty or department level in Indian institutions. The prime objective of most institutions is to increase current classroom time. There is a definite requirement for digital learning platforms for enhancing the teaching courses in Indian institutes or universities. Students are not much aware of institution placement records, and this finding is achieved in analyzing the responses. Facebook is the most preferred medium in social media from where the students get information about the institutes. The students are not aware of the offerings of the institution. The respondents have expectations from the institute that existing courses must be delivered online. The institution has to use online platforms for effective delivery. The study also suggests enhancing the effectiveness of digital learning. The organization's focus should be two-fold. Firstly, planning should be done with the utmost care and second flexibility.

Further, the state of managing digital learning by the institution is at the faculty/department level. It must be centralized. The institution has developed the educational resources as a student portal, but online delivery courses' effectiveness has to be enhanced.

Managerial Implications

From Researcher Point of View

The study is expected to provide valuable insights into the causes of the lack of popularity. Study findings will help academicians offer the solution to educational institutes for adopting digital channels for their skill enhancement programs. The study may contribute to the existing literature on the subject in the area. The research will suggest the digital tools currently in use and proposes to be used by the organization. Further, the study will also reveal the institute's existing courses and future directions, which are in high demand.

From Industry Point of View

Student's opinions on digital learning can be influenced if the industry is competent to provide the digital tools for skill enhancement courses.

Limitations

The findings cannot be generalized as it is limited to Ghaziabad only. The study does not measure all possible interactions, and the students may use their textbook or communicate with their peers and instructor outside of the online course.

Recommendations

The future business of the institutions will highly benefit from the findings of this project. As per the research conducted, the study has suggested that the company employ the digital tools currently in use like cloud computing, social media, etc. The institution must focus on digital media promotion as most students get information about their courses through this channel. The certification courses are quite popular among students, so the company must promote by using proper digital communication strategy. Further, the placements of the institutions are not known to the students. The company can work to increase the visibility of the same among the students. The institute's existing courses are popular among their students; the only discrepancy is a valuable digital tool for running their programs. The company's proper planning of digital marketing media for flexible learning needs to be developed for their skill enhancement programs.

REFERENCES

- Allen, I. E., and Seaman, J. (2010, November). Class differences: Online education in the United States, 2010. *Sloan Consortium*.
- Andrus, D. C. (2005). The wiki and the blog: Toward an involved adaptive intelligence community. *Studies in Intelligence*, September, 49 (3).
- Arum, R., and Roksa, J. (2011). *Academically Adrift: Limited Learning on College Campuses*. Chicago: University of Chicago Press.
- Bayne, S., L. Connelly, C. Grover, N. Osborne, R. Tobin, E. Beswick, and L. Rouhani. 2019. The social value of anonymity on campus: a study of the decline of Yik Yak. *Learning, Media, and Technology*. doi:10.1080/17439884.2019.1583672.
- Bers, M. (2010). Beyond computer literacy: Supporting youth's positive development through technology. *New Directions for Youth Development*, 128(Winter). doi:10.1002/yd.371
- Cavanaugh, C. (2001). The Effectiveness of Interactive Distance Education Technologies in K-12 Learning: A Meta-Analysis. *International J. of Educational Telecommunications*, 7(1), 73-88.
- Cruz, Rui & Sousa, Maria & Martins, J. Miguel. (2017). DIGITAL LEARNING METHODOLOGIES AND TOOLS – A LITERATURE REVIEW. 10.21125/edulearn.2017.2158.
- Chaffey, Dave. (2015). Digital Marketing Trends, 2015. Retrieved from <http://www.smartinsights.com/managing-digital-marketing/marketing-innovation/digital-marketing-trends-2015>.
- Chien, Jemmy. (2012). How digital media and the Internet are transforming education.
- Carey, K. (2012, September 7). Into the future with MOOC. *Chronicle of Higher Education*. 59 (2), A136.
- Falloon, G. From digital literacy to digital competence: the teacher digital competency (TDC) framework. (2020). *Education Tech Research Dev* 68, 2449–2472, <https://doi.org/10.1007/s11423-020-09767-4>
- Friedman, H.H., and Friedman, L.W. (2011). Crises in Education: Online Learning as a Solution. *Creative Education*, 2, 156-163. <https://www.gov.uk/.../BIS-15-509-digital-capabilities-in-SMEs-evidence>. (Accessed on January 23, 2015)
- Favretto, G., Caramia, G., &Guardini, M. (2003). E-learning measurement of the learning differences between traditional lessons and online lessons. *European Journal of Open, Distance, and E-Learning*. from <http://www.eurodl.org/>.
- Jarke, J., and A. Breiter. 2019. "Editorial: The datafication of education." *Learning, Media and Technology* 44 (1): 1–6. Kimmons, R., J. P. Carpenter, G. Veletsianos, and D. G. Krutka. 2018. "Mining Social Media Divides: An Analysis of K12 US School Uses of Twitter." *Learning, Media and Technology* 43 (3): 307–325.
- Hurt, M. D. (2005). Web-based distance learning: substitute or alternative to the traditional classroom: making the delivery method decision. *Online Journal of Distance Learning Administration*, 3(3), 1-18.
- Kundi, G. M., & Nawaz, A. (2010). From objectivism to social constructivism: The impacts of information and communication technologies (ICTs) on higher education. *Journal of Science and Technology Education Research*, 1(2), 30-36.

- Lai, H. J. (2004). Evaluation of WWW online courseware usability and Tools, Doctoral Dissertation, ProQuest Information, and Learning, Publication number: AAT 3123848, USA.
- Morss, D. A. (1999). A study of student perspectives on web-based learning: WebCT in the classroom. *Internet research: Electronic networking applications and policy*, 9(5), 393-408.
- Paul A. Soukup, S.J. (2011). Communication Technology and Education. *Communication Research Trends: A Quarterly Review of Communication*.
- Singh, S. (2018). Student's Perception Towards Digital Learning for Skill Enhancement Programs. In Singh, S. (Eds.), *Driving Traffic and Customer Activity Through Affiliate Marketing* (pp. 129-140). IGI Global. <http://doi:10.4018/978-1-5225-2656-8.ch009>.