Model of Using New Media Technology in Higher Education Learning

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Abstract. Media is an incredible correspondence and information sharing medium. It permits us to refresh innovation and make it around the world connected. New Media covers computerized media, online media, programming, all web-based assets. New Media has often been defined as the medium by which information is transferred between societies and students. Academies used digital media to promote cooperative learning and social interaction. The research examines the effect on higher education of 116 respondents participating in this study of new media innovation in teaching and learning. Modeling of the Structural Equation (SEM) has been used to evaluate the obtained data. The study reports the effect of these variables on cooperative teaching and learning using new media that could result in educators and learners having an impact on higher education.

1. Introduction

The digital era of the new media in the 21st century brings creativity. New technology must directly confront diversity and infinite opportunity. This refers to many modes of electronic communication made by computer technologies feasible by new media, including interactive communication, information, economic, intellectual, educational, and business functions that can be regulated and networked [1].

New media is described as "electronic means of communication, such as Facebook and Twitter and micro-blogging sites, in which users create online communities to exchange information, feelings, personal messages and other content, such as videos and other media." Modern technologies have incorporated networking as an integral part of our lives. Despite the fact that individuals will sign into person-to-person communication locales and programming that depend on intuitive substance that is openly open and has been re-arranged by buyers, present day media has explicitly empowered the utilization of new media to rouse understudies and enable them to experience the substance. For instance, the utilization of web-based media implies that students ought to be 'solid author makers of information' instead of 'aloof clients of data,' and that learning ought to be 'a' aggregate social cycle that advances individual life's inclinations and requests [2][3].

ICT, which incorporates laptops, laptops, smartphones, digital apps, and the internet, has committed to developing these technologies, introducing us to the 'Third Technological Revolution,' the 'modern economy.' In the lives of students, instructional technologies and online networking are dominant forces, and most educators use digital media for their subjects, and higher education continues to expand. It is also possible to link Online Learning Management Systems (LMS) to the CMS, which provides an instructor with a central online interface for tracking student success [4][5].

A social change from educator centered guidance to an organized way to deal with being coaches and...
facilitators of the learning cycle could be supported by advanced media. In the advanced education foundations utilized for online media applications and the utilization of normally characterized shared learning, the association of participatory and gathering activity is communicated [6][7]. Most Bangalore colleges have just evolved learning stages (LPs) to permit understudies to get to preparing materials and draw in with their friends, speakers, and college staff. Electronic applications, for example, sites, email, message sheets, visit gatherings, text and video meetings, synergistic journals and Learning Management System coordinated effort devices [9][10]. The ideal medium to assist understudies with accomplishing magnificent scholastic outcomes in study halls, research facilities and past is in fact the online 2.0 innovation and learning systems. High school students will have good trends of understanding creative work by using social media in the sense of studying, promoting peer alumni and supporting each other in school. Several variables associated with higher education have been discussed in the literature. Al-Rahmi et al., 2014, Chen and Bryer, 2012, Al-Rahmi and Othman, 2013, for example. Verified the utilization of the faculty [11][12][13].

In this respect, the current research is measured as an illustrious endeavour as it discusses TAM aspects that affect collective learning in the use of new media. At the Indian higher education level, the current research aims to explore the impacts of cooperative learning on the success of learners using new media. The current research contracts with the theoretical model and verifies the conclusions accepted or denied by the Structural Equation Model (SEM) [14][15].

2. Review of Literature
The journal is used to study its utility in filed learning and is considered an extremely useful tool for educational purposes and beyond. Students can use the networking resources of their studies, blogging services, community services, as well as social media to actively search for colleges and career opportunities [16]. The investigation zeroed in on the job of online media in advanced education on understudy scholastic life. Subsequent to investigating the examination premium pattern and deciphering the different reactions of the members, albeit a portion of the reactions were not translated on the grounds that they all had a similar thought, the outcomes show that understudies in advanced education regularly utilize web-based media [3].

The research identifies a need for large-scale testing of pedagogical social media applications through institutions and throughout Australia. For example, the research could include further exploring the theoretical framework of Vygotsky and then applying it to specific case studies to determine if, on the one hand, the potential being advocated or, on the other, the conservative attitudes towards the use of social media in HE was justified and to what extent [1][17].

The use of digital media in web technologies will be used to offer applicable information to educators and to support new media teaching and learning and to encourage teaching by teachers who have developed social media and materials for higher education courses. Therefore, Web 2.0 is a global network that helps learners who have the same ability to communicate or exchange resources to create their own social networks online. In addition, the importance of self-directed learning could contribute to precise learning by using Web 2.0 instruments. New Web 2.0 media, including the interactive form of digital education technologies by higher education instructors [5][18][19].

3. Research Model
The essential wellspring of the investigation worldview is the Constructivism Theory and Technology Acceptance Model (TAM). The past rule delineates and shows that contact among students and their educators is a significant advance in accomplishing investment and effective aggregate learning (Vygotsky, 1978, Carlile et al., 2004). This examination likewise utilizes the previously mentioned above model as it delineates the pattern of reception of arising advancements being vigorously propelled by seen utility and convenience. Around there, most exploration utilizes TAM as a hypothetical model created by Davis (1989). The clarification why TAM is generally utilized is that it characterizes the fate of each PC innovation regarding endorsement or forsaking. The Constructivism Theory (CT) & Technology Acceptance Model (TAM) shown in figure 1.
Figure 1. The Constructivism Theory (CT) & Technology Acceptance Model (TAM)

4. Proposed Model

The figure 2 shows the proposed model.

Figure 2. Proposed Structure Equation Model for New Media Technology in Higher Education Learning.

5. Result and Discussion

A poll was gotten from Google by around 104 understudies and respondents were grouped by a few guidelines: sex, level of schooling, utilization of web-based media. In light of Table 1 Ranking of Ages, 19-21, 22-25, the presence of under 18 respondents was 75 %, 16.3 % 8.7 %t and sexual orientation arrangement, 82 male and 22 female respondents were 78.8 % and 21.2 % individually. 5 of the respondents were PG understudies, 99 were UG understudies, 4.8 % and 95.2 %, separately, as per instructive stage members. The details are available in table 1 and 2.
Table 1. College students’ Demographic profile (n=104)

| S/N | Characteristics | Categories | Number of respondents | %age (%) |
|-----|----------------|------------|-----------------------|----------|
| 1   | Age            | 19-21      | 78                    | 75.0     |
|     |                | 22-25      | 17                    | 16.3     |
|     |                | below 18   | 9                     | 8.7      |
| 2   | Gender         | Male       | 82                    | 78.8     |
|     |                | Female     | 22                    | 21.2     |
| 3   | Course         | PG         | 5                     | 4.8      |
|     |                | UG         | 99                    | 95.2     |

Table 2. Reliability study result for NM&HE Dimensions

| Dimensions       | Number of Attributes | Cronbach’s Alpha |
|------------------|----------------------|------------------|
| PU_TOTAL         | 5                    | 0.771            |
| PE_TOTAL         | 5                    | 0.779            |
| PO_TOTAL         | 5                    | 0.769            |
| NMU_TOTAL        | 5                    | 0.767            |
| CL_TOTAL         | 5                    | 0.771            |
| SS_TOTAL         | 5                    | 0.768            |
| NMHE_TOTAL       | 5                    | 0.770            |
| ALL TOTAL        | Cronbach’s alpha     | 0.931 No. of. Items 35 |

When applying Likert style scales in analysis, it is important to calculate the Cronbach alpha coefficient for accuracy and consistency. Table 2 shows the variable and overall reliability of the influence of the New Media and Higher Education scores. The findings show that for all measurements, Cronbach's alpha is above 0.931 (George and Mallery, 2003: 231), suggesting for the scale a high level of internal continuity. In addition, as shown in Table 2, the alpha value for the NM&HE dimensions of all Cronbach is 0.931. The alpha values of Cronbach for the sub-scales of perceptions are 0.771, 0.779, 0.769, 0.767, 0.771, 0.768 and 0.770 for saw convenience, seen pleasure, seen opportunity, utilization of new media, collective learning, understudy fulfillment and generally speaking examination of unwavering quality for new media and advanced education.

6. Exploratory Factor Analysis

Pearson Correlation Coefficient between factors of Perception on Impact of New Media in Learning. The correlation coefficient (CC) between view of apparent value and saw happiness is 0.501, which uncovers good 50.1% age relationship between impression of saw value and saw coordination pleasure and is significant at 1% level.

The CC between view of apparent helpfulness and saw opportunity is 0.672, which proposes good connections between impression of saw value and saw opportunity for cooperation at 67.2 % age and is significant at 1 % level.

The CC between view of apparent handiness and use of new media is 0.664, proposing a positive 66.4 % age relationship between impression of saw convenience and cooperation utilization of new media and is significant at 1 % level.
The CC between view of apparent convenience and collective learning is 0.596, which uncovers positive connections between impression of saw value and synergistic learning on cooperation at 59.6% age and is significant at 1% level.

The CC between view of apparent value and understudy fulfillment is 0.637, which uncovers positive correlations between impression of saw value and understudy fulfillment on cooperation at 63.7% age and is significant at 1% level.

The CC between impression of saw convenience and 0.666 of new media and advanced education, which exhibits ideal connections of 66.6% of ages between view of apparent value and cooperation of new media and advanced education and is significant at 1% level.

The CC between view of apparent handiness and effect of new media on 0.809 of advanced education, which uncovers positive 80.9% age connections between impression of saw value and effect of new media on cooperation of advanced education and is significant at 1% level. Also, Table 3 shows that different factors are connected decidedly with one another. The study is available in table 3.

Table 3. Study of Evidence on Factors of Interpretation in the Educational Impact of New Media in Learning

| Inter-Item Correlation Matrix |
|-------------------------------|---|---|---|---|---|---|---|---|
| Factors of Perception on Impact of NM&HE | PU | PE | PO | NMU | CL | SS | NMHE | IMPACT OF NM&HE |
| PU | 1.000 | 0.501** | 0.672 | 0.664 | 0.596* | 0.637 | 0.666 | 0.809** |
| PE | - | 1.000 | 0.602 | 0.630 | 0.616* | 0.504 | 0.485 | 0.735** |
| PO | - | - | 1.000 | 0.774 | 0.663* | 0.742 | 0.651 | 0.866** |
| NMU | - | - | - | 1.000 | 0.795* | 0.778 | 0.697 | 0.904** |
| CL | - | - | - | - | 1.000 | 0.744 | 0.659 | 0.858** |
| SS | - | - | - | - | - | 1.000 | 0.771 | 0.878** |
| NMHE | - | - | - | - | - | - | 1.000 | 0.839** |
| IMPACT OF NM&HE | OF | - | - | - | - | - | - | 1.000 |

Note: ** Denotes significant at 1% level

7. Hypothesis

Null hypothesis (H0): The hypothesized model has a good fit.
The alternate hypothesis (H1): The hypothesized model does not have a good fit

Structural equation modelling (SEM): Model fit assessment:

Many fit indexes have been developed for structural equation models. However, these indices may point to contradictory conclusions about the degree to which a model correlates with the data observed. Structural Equation (SE) simulation has been used to evaluate the model's fitness dependent on the collected samples. As proposed by Anderson and Gerbing, 1988, the exploration model to approve the exactness and legitimacy of the overview instrument was first tried, and the primary model was investigated utilizing AMOS form 23. The Structural Equation Model is generally helpful for assessing the causal connection among factors and checking the model's similarity (Peter, 2011) (Refer table 4).
Table 4. Model fit summary of STM and Structural Equation Model

| Fit Indices                                   | Results | Suggested values          |
|-----------------------------------------------|---------|---------------------------|
| P value                                       | 0.309   | P-value >0.05             |
| Chi-square /DF, degree of freedom (x²/d.f.)   | 1.189   | ≤ 5.00 (Hair et al, 1998) |
| CFI, Comparative Fit Index.                  | 0.998   | >0.90 (Hu and Bentler, 1999) |
| GFI, Goodness of Fit Index.                  | 0.984   | >0.90 (Hair et 2006)      |
| AGFI, Adjusted Goodness of Fit Index.         | 0.927   | > 0.90 (Daire et al, 2008) |
| RMSEA, Root mean square error of approximation.| 0.038   | < 0.08 (Hair et al, 2006) |

Structural equation simulation analyses whether a theoretical model fits the results. To test the architecture, focus was placed on Chi-square/degrees of freedom (x²/df), CFI, RMSEA, GFI and AGFI (Table 4). Thusly, a decent model fit shows p= 0.309 Chi-square insights. As indicated by Lomax and Schumaker (1996), nonetheless, an example size of more than 100 (116 in this investigation) may affect measurements from Chi-Square to mean a significant probability level (p=0.309). Thusly, this model is considered in the norm of fit measures for additional examination. The estimation approach was utilized to rough fit utilizing normal model fit measurements, for example, chi-square/level of opportunity (x²/df), relative fit record (CFI), guess root implies square mistake (RMSEA), GFI and AGF.

The Machine Fit Index results from the underlying reenactment of AMOS as found in Table 4.

As per Gerbing and Anderson (1992), the models for a fitting model are as per the following: Table 4 shows that the estimation of Chi-square/DF is 1.189, which is under 5.00, which implies an ideal match. The estimation of the Confirmatory Factor Analysis (CFI) (0.998) and Goodness of Fit Index (GFI) (0.984) Chi-square identical is more prominent than 0.90, which is a solid match. The estimation of the Modified Goodness of Fit Index (AGFI) (0.927) is more prominent than 0.90, which is a sensible fit, and the estimation of the RMS Approximation Error (RMSEA) is likewise noted to be 0.03, which is under 0.08, which implies it is in a perfect world (See figure 3).
Table 5. Regression Weights: (Group number 1 - Default Model)

| Independent | Relationship | Dependent | Estimate | S.E. | C.R. | P  |
|-------------|--------------|-----------|----------|------|------|----|
| New Media Usage | --- | perceived Usefulness | 0.217 | 0.063 | 3.469 | *** |
| New Media Usage | --- | Perceived Enjoyment | 0.171 | 0.059 | 2.897 | .004 |
| New Media Usage | --- | perceived Opportunity | 0.547 | 0.073 | 7.539 | *** |
| Collaborative Learning | --- | New Media Usage | 0.626 | 0.060 | 10.462 | *** |
| New Media and Higher Education | --- | New Media Usage | 0.830 | 0.084 | 9.838 | *** |
| Students Satisfaction | --- | Collaborative Learning | 0.011 | 0.076 | .150 | .881 |
| Students Satisfaction | --- | Media and Higher Education | 0.805 | 0.109 | 7.402 | *** |

*p < 0.001 Items, measuring NM&HE, divided into SEVEN sub-factors

Table 6. Standardized Regression Weights: (Group number 1 - Default Model)

|                      | Estimate |
|----------------------|----------|
| New Media Usage      | .228     |
| New Media Usage      | .160     |
| New Media Usage      | .545     |
| Collaborative Learning | .667    |
| New Media and Higher Education | .812 |
| Student Satisfaction | .013     |
| Student Satisfaction | 1.014    |

Essential tests of individual parameters:
The standardized coefficients and related test estimations are showed up in Table 5. The extent of progress in the ward or intervening variable is tended to by the normalized apostatize coefficient for every one-unit change in the variable predicting it. Table 5 shows the normalized check, its standard misunderstanding (abbreviated S.E.), and the standard bungle measure. (dense C.R. for Critical Ratio). Likelihood respect related with the invalid theory that test is ensured is appeared under segment P.

Maximum Likelihood Estimates:
The uniform figures of the fitted model can be seen in Table 6. To determine relative contributions to each outcome variable of each predictor variable, it is possible to use uniform equations. In Figure 2,
the NM&HE structural architecture is visualised. Of the impact of new media on higher education, 35 items were taken by 116 college students for confirmatory factor analysis. As seen in Figure 2, in the higher education learning phase, the new media plays an important part. The confirmatory variable test is also known measurement process. The root suggests that the approximation square error indicates how model fits population covariance matrix with unknown parameter estimates (Byrne, 1998). Kline (2005) states that it matches well with CFI, RMSE, Root Mean Square Approximation Error.

8. Conclusion and Future Work

The point of this examination was to play out an experimental investigation of the elements that decide apparent handiness, seen delight, seen opportunity, new media use, collective learning, understudy fulfillment, the impact of new media and displaying of advanced education. This investigation affirms and examinations the effect of new media and advanced education on saw convenience, seen delight, p. The proposed model (for certain alterations, the NM&HE scale was embraced) is then adjusted utilizing the information gathered from both UG & PG - Jain University, Bangalore of India undergrads. SEVEN elements are significant determinants of saw value, seen joy, seen opportunity, utilization of new media, communitarian learning, fulfillment with understudies.

The discoveries show that Cronbach's alpha for all measurements is above 0.70, demonstrating a significant degree of inner consistency for the NM&HE scale (NM&HE model with the lone proportion of execution). Likewise, Cronbach's general alpha incentive for the NM&HE measurement is 0.931, which is over the cut-off estimation of 0.70. It tends to be finished up based on the corroborative factor examination that the NM&HE scale utilized in this investigation (NM&HE framework with yield assessment just) fits properly into the gathered information.

In view of the practicality and measurable meaning of significant boundary assesses, the impressively great model fit (Chi-square worth, Chi-square worth/DF, CIF, RMSEA, GFI, AGFI), it very well may be inferred that the five-factor model appeared in Figure 1 gives a satisfactory clarification of the NM&HE structure for the effect of new media innovation on advanced education learning on fit files. Ideally, this examination will assist with understanding the part of new media innovation among understudies and its impact on learning in advanced education.

By examining the innovation highlights of new media innovation in advanced education, we can reason that the use of new media innovation in the field of instruction has a decent improvement prospect and immense space for progress, thus the emphasis on the usage and normalization of new media innovation should be put on schooling divisions and college heads. Whereas, when applying new media technologies to teaching, educators need to pay attention to the sense of propriety, minimizing the freedom of teachers and students on multimedia teaching methods. Teachers need to develop their own ability to use new media technology, achieve the perfect combination and organic convergence of new media technology and higher education.

9. References

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