



**65th ILA CONFERENCE  
PROCEEDINGS**

**International Conference  
on**

**"Digital Landscape Re-invention and Re-engineering of  
Libraries: Issues and Challenges"**

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**Maharashtra University and College Librarians Association  
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**Indian Library Association**

**New Delhi**

**2021**



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**(Proceedings)  
65<sup>th</sup> ILA Conference**

**Organized by  
Maharashtra University and College Librarians Association,  
at Sant Gadge Baba Amravati University, Amravati Maharashtra  
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2021**



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ISBN: 978-81-85216-52-5

Price: India: ₹ 3500/-; Overseas: US\$ 175 Printed at: Anand Sons, Delhi-92



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## Use of E-Content Development in Teaching & Learning

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**Abstract:** In this technological age, today's learners are techno-savvy, that we need to understand and use of ICT technology in our education system, not only use the ICT technology but utilised them such a way that the today's techno-savvy learners get attention in learning process. E-content is a latest media of learning and attracting the attention of the learners. E-Content is a most valuable method to construct or develop the information in electronic form and make available to all at any time, any place, any one to utilised it. Present Paper focuses on Impact of E-Content in teaching and learning process of education. E-content used by teachers those were recently completed the training workshop / Seminar / FDP on E-content Development. Author use questionnaire method for collecting the data.

**Keyword:** E-Content, E-Learning, Recent method of teaching & learning.

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### 1. Introduction

In the beginning of 20<sup>th</sup> century technological changes or technological revolutions start with very fast speed. Up to 1960 revolutions speed was slow, but the middle age of the 20<sup>th</sup> century most of the technology invented. We use audio, video and projector in our teaching and learning then after 1980 televisions, VCR, audio tape was used for teaching and learning. After that computer age was started, Learner learn their topics with the help of computers, smart boards etc. In 1992 Tim Burner Lee invented the WWW this was the most important aspect in education system, with the help of internet or www the learner learns anything at any place at any time with his own convenience. The National Policy of Education (1986) has emphasize the application of educational technology to improve the quality of education at all levels. It has also led a special emphasis on using computers in the teaching learning process. So, the teachers can attempt to develop e-content. E-content is a very powerful tool of education. E-content is valuable to the learners and also helpful to teachers for all individual instruction of systems. E-content is the latest method of instruction that has attracted more attention together with the concept of model. Now in the age of 21<sup>st</sup> century we are in Interactive age. Today's learners are techno-savvy therefor we need to understand and use of ICT technologies in our education system. Not only use the ICT technology but



utilized them in such a way that the today's techno-savvy learners get attention in teaching and learning process. E-Content is the media for learning for that it is a latest method of teaching that attract learners. It is most valuable method to construct or develop, the information in electronic form and make available to all at any time, any place, anyone can utilize it.

Today's learners are digital native because they know all the tools and techniques of the technological learning whereas the teachers are the digital migrants because they learn how to use the tools and techniques of recent age. Today's learners are multi-model learners, Therefore Higher Education Ministry introduced the new policies about today's teaching aids and tools. Without using new technology today learners will be bored they need technological based learning their capacity of traditional learning or attention of sitting continuously reducing, as learners are smart, teachers will be. As all these influences of technology on our education system E-content lectures or study materials are compulsory by the government. So, government take initiative and started online courses through NPTEL and SWAYAM so that teacher can use these courses for their own and for students. This step started by IITs and some universities. But according to local needs teachers can start their own courses or encourage student for use of technology for education purpose.

Today students take their education while working to earn. So, they miss their classes some time. In rural areas students are working in Farm so they don't have time to attend classes. But they want to take education. So, teachers develop E-Content so that student can learn from anywhere as today every student use mobile so they can use E-content from anywhere and complete their study. Teachers are also care their students so they started to develop e-content and also take trainings regarding developing e-content. Teachers use G-suits or google classrooms for providing e-content or assignment to students as this facility is free. In 7<sup>th</sup> pay commission, how many contents a teacher create for his subject? will count for his Career Advancement Scheme (CAS) and your Academic Performer Indicator (API). That's why as a part of our teaching we learn about how to create a content, how to make it, how to give the students and learner. All these questions were in mind. Don't worry various tools and Technology are freely available on net creating e-content.

### What is E Content?

E-content technical definition electronic content, digital content that can be transmitted over computer networks such as the internet.

E-content is term as electronic content that include text, image, graphics, animation



audio and video sometimes e-content will be single elements carrying any one of the above elements or all of the above together to display offline or online web pages and also to be transferable to computer to another computer and internet.

Electronic content or Digital content is Defined by those involved in creating providing and distributing information as the digital contain which is view on screen and not on paper. With the advent of internet and www the access of information has become very easy and the entire world is moving towards digitisation 21<sup>st</sup> century student learn in a global classroom and not necessarily with in four walls. They are more inclined through mobile phones and computers or chatting with friends on social networking site. The advancement in technology and the plethora of powerful and innovative digital device and tools have a great potential to improve educational outcomes, educators must understand that the use of digital content and device will improve teaching and learning and the enhance educational opportunities and benefits the millionaires.

According to Oxford dictionary defines E-content as - Digital text and image design for display on web pages. Here in the study E-content refers to which include electronic version of books, journals, maps, media and archival materials that can be used for teaching and learning.

E-content available through TV, radio, phones, multimedia, CD/DVD and internet can also be termed as E-content. In this context the E-content developed in the form of compact disc is considered as an E-content material for the study.

## 2. Stages of E-Content Development-

E-Content are not ready. Usually teachers create E-content by using UGC Guidelines. There are so many instructional design models are available but same common steps in all of them. Which they are...

1. **Analysis Phase:** It is a most crucial stage because in this stage we plan all the things, what is our target group, what is our content, which method to use for material availability, animation, collecting the data and so on.
2. **Design Phase:** In this phase we use all the data which we think in analysis phase to design our content, planning of an e-content preparation etc.
3. **Development Phase:** In this phase we work actual to creating an E-content with the help of audio, video, text, animation etc. preparing of assignment, quiz for learners etc.



4. **Testing Phase:** In this phase overall error rectify and solved it like spelling, video, audio quality, picture screenplay, various links for references etc.
5. **Implementation Phase:** This phase implements all our e-content share or get available to the target audience.
6. **Evaluation Phase:** Evaluation phase is most important phase in all this process. Because in this phase learners & instructor's feedback are come developer also evaluate its function and responses of learners and make a design to effectively developed of E-content.

### 3. Features of E-Content

- E-Content is teachers friendly.
- E-Content is students friendly.
- E-Content is technological friendly.
- E-Content is learner centric.

### 4. Objectives of Study

- To find the attitude of teacher for developing e-content.
- To find the most usable e-content type of teaching.
- To find the most usable LMS (Learning Management System) for publishing e-content.
- To find the most usable Instruction Design Model for creating e-content.
- To find the obstacles and problems in creating the e-content.
- To find out the effectiveness of the e-content for teaching.

### 5. Methodology and Scope of Study

Author use questionnaire method for collecting the data. Questionnaires will be distributed to teachers from Mumbai university. After collecting the data, data presented in tabular form and analysis is done with the help of statistical tools.

### 6. Data Analysis

For this study author had been design a questionnaire in Google form for collecting the data and distributed and circulated this questionnaire with the help of social



media like What's App. Author had received 101 responses from various colleges teachers these are affiliated to University of Mumbai. This data presented and analysis with the help of tables.

Sr. No.	Purpose of Developing E-content	Respondant	Percentage
1	For the need of today's education process	61	60.4
2	For teaching Purpose	52	51.5
3	College Development	48	47.5
4	Personnel Progression	38	37.6
5	For NAAC Purpose	29	28.5
6	For your API Increment	20	19.8
7	Other	3	3

Table Number 01 indicates that the attitude of teachers to develop the e-content, this attitude arranges in decreasing order. Above data revealed that majority of respondent developed e-content because it is the need of Today's education process, that is 60.4% follows that 50 1.5% respondent use it for their teaching purposes and then 47.5% respondent develop it for college progress and follows are 37.6% personal progression, 28.5% NAAC purposes and lastly 19.8% are there self API increment, from that table It is indicates respondents use e-content for educational and college progression first and lastly there self-increment.

Sr. No.	E-Content type to use	Respondant	Percentage
1	PPT	71	70.3
2	Video	54	53.5
3	YouTube	47	46.5
4	Self Audio and Video	45	44.6
5	PDF Documents	35	34.7
6	E-Text	34	33.7
7	Audio	25	24.8
8	Others	2	2

Table number 2 reflect that till the date most of respondents 70.3% use traditional method of e-content that is PPT because it is most user friendly method of teaching. Then showing the videos those are collected from different sources that is 53.5%. Follows that YouTube videos 46.5% of related topic, 45% respondent use their own created video and audio for teaching. Rest are PDF document 34.7%, e-text 33.7% and audio 24.8%. It means that nearly 50% respondent use recent e-content type that is self-audio and video means the trend of education is slowly but steadily change as technology changes.



Table No 03 - LMS Module use for Publishing E-content

Sr. No.	LMS Module use	Respondant	Percentage
1	YouTube	40	40.3
2	Google Classroom	34	33.7
3	MOODLE	29	28.7
4	SlideShare	25	24.8
5	SWAYAM	13	12.9
6	LinkedIn	10	10
7	G-Suite	9	8.9
8	SCROM	1	1
9	Others	10	10

From above table we firmly say that, most popular LMS for publishing e-content is YouTube 40.3% YouTube is most friendly to all the educator's and student also. You can get every informational videos on that platform. So our respondent shows that too. Google classroom 34% respondent use it for publish their e-content. Follows that MOODLE used 29% respondent use MOODLE. MOODLE is a modern platform for publishing educational e-content that is also a part of MOOC, which is worldwide recognised. Slowly educators learn about it and use it. Then Slide-Share 24.8%, SWAYAM 13%, a project of Indian government of e-content for teaching and learning purposes. LinkedIn 10% also popularity in educator's. G-Suite and SCROM are not much popular and usable platform to publish e-content other than that responded use various elements like D-Space UDEMY etc.

Table No 04 - Design Module Use for Developing E-Content

Sr. No.	Design Module use	Respondant	Percentage
1	ADDIE	44	43.6
2	Others / Not Aware	27	26.7
3	SAM	16	15.5
4	Kemp Design Model	14	13.6
5	Gerlech and Ely Model	9	8.7
6	Dick and Carey	6	5.7

Table Number 4 reflex that most popular model for developing e-content is ADDIE 44% because this module is so simple, in its name describe the process of module therefore it is most used model for developing the e-content. Most of the respondents not aware about design module, they use their own method for develop a e-contain. As compared to ADDIE Sam and cam design model. Are follows them in e content garlic and model and dick and Carey model not more than 10% respondent use it.



Sr. No.	Problem Face	Respondant	Percentage
1	Yes	54	53.5
2	No	47	46.5
3	Total	101	100

Table number 5 problems faced for implementing and creating the e-content more than 54% responded facing the problem while 46 persons are not. we see the most common problem faced by respondent that is...

1. It's so time consuming process.
2. Required necessary equipment.
3. Training for developing and mixing various types of e-content is needed.
4. Internet connectivity.
5. Facing the problem for uploading e-content on any LMS model.
6. Most suitable software and technological.
7. Technical problems like connectivity configuration various software technical skill etc.
8. It is not a single person work.
9. How to give the students no idea?
10. Mostly it need a budget for equipment available in college Institute to create it.

Sr. No.	Use of E-Conetent	Respondant	Percentage
1	10-30	52	52
2	30-50	14	13.7
3	50-70	7	6.8
4	Above 70	28	27.5
5	Total	101	100

Table Number 6 use of e-content developed by teachers. Above table Describe that. Mostly all the students get benefited from e-content developed by their teachers because today student don't have capacity to seat long hours. Their concentration loses in a certain period of time, their mind wants something new, this e-content



gives them like audio video lectures of their teachers, PPT e-text, YouTube videos etc. It shows that study the effectiveness of e-content increase in learning as well as teaching process the e-content once develop teacher distribute are use it at any one. At anywhere at any time.

## 7. Findings

The present study provides us information about use of e-content its development and implementation. Major findings of the study are...

1. Most of the urban colleges are used e-content in their teaching learning process, whereas rural and semi urban colleges not get proper facility for developing the e-content.
2. More than 90% respondent agree with the policy of government to compulsory use recent technology in education system, therefore government gives a platform like SWAYAM for learning the recent trend. But along that government gives a proper guideline to colleges and institute for implementing it like provision of budget, infrastructure, some extra time including in working hours etc.
3. Respondent of the study use e-content are developed e-content because it is a need of Today's education policy because traditional process, tools are so boring for today's techno-savvy student, therefore today's educational are use it mostly for teaching process and also follows it. Get a weightage in NAAC and its impact on college development. Lastly for its API increment.
4. Today's mostly educational are technology friendly, but not much to create modern types of e-content that is self-audio video mixing, editing etc. Therefore 93% of respondent says that it is must to have a proper training of it. That's why 70% of educator's used traditional method of a teaching that is PPT then showing YouTube readymade videos etc.
5. Learning management system is an important part of Educational policy because without that we cannot publish our e-content, without that we cannot reach anyone, anywhere, at any time. More than 40% educator publish their content on YouTube it is most user friendly LMS system for both



learners and teachers, follows that Google product that is Google classroom nearly 35% of respond use it for their work purposes Government of India SWAYAM and MOODLE are not popular but they slowly get attraction towards them because it is authentic platform for learning and teaching.

6. ADDIE is a most popular Information Design module among respondent rather than e-content development system most of the respondent not aware about any module for developing the e-content.

## 8. Conclusion

Today's Higher education model need to provide education to learners at any place, learners are now learning while earning for their life. The steps by government to provide courses through NPTEL/ SWAYAM also the E-content provide learner an opportunity to learn from any place through digital media. And Teachers also take positive initiative in this sense. So the present study also shows that teachers also develop good content.

## 9. Suggestion

1. UGC, HRDC gives instruction to colleges Institutions to make a separate budget for e content development.
2. Higher authorities give some proper guideline, knowledge of developing e-content in college Institute for beginners.
3. College, Institution provide separate space, infrastructure, internet for developing the e-content.
4. E-Content making is a time consuming process therefore count this time in self progression.
5. UGC, HRDC increase the workshops of e-content development.
6. UGC, HRDC need to spread more awareness about e-content.
7. Today's Educational policy make it compulsory to every staff.
8. Librarian should necessarily be a part of e-content development project in a college.
9. Every college Institute formulate the **E-content Development Committee**



and every teaching staff make at least two e-content as per their syllabus in a semester.

10. The education mode is already changed in various countries. Now, we have to add up this way to teaching and learning.
11. Give the training about uploading the e-content and its privacy.
12. All e-content kept in library as an institutional, college E-content repository.
13. UGC HRDC provider common hardware and software for developing the e-content.

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