The Art of Digitalising Online Content: Making Learning Content Effective

Ashok Chanda

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It is always exciting to see how some social media content becomes viral and in turn what becomes popular and what becomes a 'favourite'. There could be a number of reasons associated with its popularity index, however, one can observe that the popular/favourite content is in some way different from the rest and therefore, gains tremendous attention of people at large.

A scholarly research work published by Berger and Milkman (2012) on what makes online content go viral used a data set of all the *New York Times* articles published over a three-month period. The authors, then, examined how the emotion of the readers shapes virality.[1] The results indicate that positive content is more viral than negative content – though the relationship between emotion and social transmission is complex. In today's world, a news channel just dreaming of deploying a camera and simply filming a newsreader on the evening news is not a sensible proposition. Without narration, using multiple camera angles, cutaway views and close-ups of the presenter, viewers would lose their interest almost instantly. The game has changed.

In the online learning space the same issue applies for the learning content. If the learning content is built around positivity and taking into account the student emotional perspective, it is likely to gain more positive attention by students. Content, then, must be interesting or practically useful – all of which are positively linked to virality. How prominently content is featured, determines how it can build student interest and attention.

This article focuses on what constitutes effective online learning experiences. It reflects on elements in design of course content, learning tasks, and pedagogical approaches, which contribute to a positive online learning experience.

Art of digitalising online content

There is a sharp misconception among online courses providers on what is 'Digitisation of content' and 'Digitalisation of content'. 'Digitisation of content' describes the process of basically switching tangible content into a digital format, while 'Digitalisation of content' describes an intrinsic adaptation of the learning resources best suiting the learning needs of the online students which is effective and experiential.[2] Digitalising content involves structural changes in the content, correctly adapted to a new format with its own set of norms.

Digitalisation is way beyond just transposing a course into digital content, it requires a rethink on how the course material is delivered. The content must be designed to create a dynamic, interactive learning platform with content that will engage students. Proper structuring of the course is essential for achieving these goals. The learning content should be accessible to students at any time from any place and on any compatible electronic device using internet. Students should be able to download the content for an off-line study option.

[1] Berger J. and Milkman K. L. (2012) What makes online content Viral? Journal of Marketing Research, Vol. XLIX, 192 –205. https://doi.org/10.1509/jmr.10.0353

[2] https://www.forbes.com/sites/jasonbloomberg/2018/04/29/digitization-digitalization-and-digital-transformation-confuse-them-at-your-peril/?sh=fb2466a2f2c7

Online learning generally provides two option - asynchronous (not existing or occurring at the same time) and synchronous (existing or occurring at the same time). Both of these options are designed around two types of learning contens – eLearning content and webinars[3].

Unlike face-to-face teaching, online learning does not have lecturers and students physical present in the classroom. Students virtually access content and lecturers virtually deliver. The face-to-face delivery has two prominent ingredients, one being the presence of lecturers who share the learning experience and students have freedom to interact with lecturers resolving learning queries. The second ingredient is learning texts (including prescribed textbooks and related presentations and case studies). These resources are predominantly used during delivery in the face to face classroom. In the online learning delivery environment, both of these formats are missing. Lecturers do appear during live webinars - but the interaction with students is generally missing.

Content is king in online learning

In the virtual learning environment 'content is the king'. What content is made available and how the content is presented as online resources are the two most important factors contributing to effective student learning[4]. All content should be made available for students to access both online and offline, providing students with the option of how they wish to learn.

Most courses vary greatly in terms of length, weekly workload, and the number of course modules provided. On average, a subject within a university undergraduate or post graduate course lasts for a duration of thirteen (13) to fifteen (15) weeks. Each week consists of 1 to 2 hours of weekly coursework. During the weekly planned study load, both asynchronous and synchronous learning is weaved together. For example, each week webinars delivered by the lecturer being a synchronous learning is provided, covering one or two topics of the subjects - and lecturers explain the topics in webinar format. At the same time, in the asynchronous format, learning content of the same one or two topics is placed on the learning management system to which students are given access.

On average, digitalised content of a subject consists of activities such as a course outline, assessment guide and topics summary. The learning contents for each topic is developed with a topic presentation, summary readings explaining topics, case studies, real-life examples, short videos, research articles, self-practice tests, quizzes with multiple choice answers and range of supplementary reading. Each of these are designed with an appropriate presentation format such as using multi-colour graphic design, fonts, graphs, tables, pictures, photos, icons, caricatures and symbols to keep consistency with content and ensuring student interest is maintained. Using 'voice over' of lecturers, video of lecturers in a classroom setting and infographic presentations, designed specially related to topics, adds interest for learners. Along with the above, recordings of regular webinars delivered as synchronous study of lecturers, also placed in the learning content, can be accessed by students along with digitized contents at all times.

Assessment design in online learning must be developed keeping in mind the nature of online learning as opposed to the physical paper-pencil and invigilated test environment. Computer based online tests are ideal for assessments, however short quizzes, summative assessment

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[3] https://online.osu.edu/resources/learn/whats-difference-between-asynchronous-and-synchronous-learning

[4] https://www.udemy.com/course/how-to-write-the-best-online-content/

assignments (all with a submission time frame) are also most appropriate methods for inclusion.

The digitalised content must be built in keeping course specifications and requirements in mind at all times. It is certainly possible to create more content as extra support for learners, but the risk of losing student engagement increases proportionally. Content is fighting for student attention alongside the course requirements and assessments. In online studies, students are constantly tempted to move away from the content and open a new browser tab and check out what is happening on Facebook or YouTube. Keeping course content, short and succinct, is the best deterrent to straying in the digitalisation strategy.

Intricacies of online learning content

Use of instructional design concept

There are many reasons why the instructional design concept requires that learning is more safe, certain, thorough, and expeditious than otherwise[5]. At the same time, facilitating the learning process, as learners will require less time, incur less risk, and invest less energy than those who learned from the world without assistance.

Optimising Learning Management System

In a recent study done by Fearnley et al., (2020) investigating factors that influenced adoption of a learning management system by higher education providers using the technology acceptance model, incorporates three external constructs - system quality; perceived self-efficacy; and facilitating conditions.[6] There are many elements that go into a successful building of digitalisation of content. The Learning Management System is a content hub, but it has to combine with academic support and student support mechanisms to give content the best chance of reaching the right people at the right time.[7] It should be noted that content represents an online course as a product that the students consume. Putting every piece of content that is digitalised at the heart of every piece of content created becomes essential.

Choose the Right Educational Technology

Learning with the right kind of education technology enhances students' learning abilities. There are three type of interaction between learner, instructor and computer.[8] The interaction between learner and computer can be enhanced by using flashcards, RSS, YouTube videos, Add Blocks and FAQs. Interaction between learner and instructor can be enhanced with lessons, quizzes, projects, conference with video chat and quick email. Interaction between learner and learner can be enhanced by using chats, forums, blogs and glossaries.

Revision Procedures

Once the content is digitalised and ready to offer online, it important to run various revision procedures to ensure that the content digitalised is meeting quality requirements. This would

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[5] https://www.tandfonline.com/doi/citedby/10.1080/13562517.2021.1872527?scroll=top&needAccess=true

[6] Fearnley, Marissa R.; Amora, Johnny T.(2020), Learning Management System Adoption in Higher Education Using the Extended Technology Acceptance Model, *IAFOR Journal of Education*, 8(2), 89-106.

[7] https://link.springer.com/content/pdf/10.1007/s10758-020-09475-1.pdf

[8] https://eric.ed.gov/?id=EJ1277763

include, for example, conducting a survey evaluating each eLearning module for course and site design, navigation, and design aesthetics. Post survey, a panel of experts should review the digitalised course. This process should include subject matter experts, instructional designers, eLearning developers, etc. Based on their constructive feedback, appropriate revision of the digitalised course needs to be carried out before making it available to students. Most importantly, digitalised coursework must be further revised using student constructive feedback.

Protecting online content

It is important to protect digitalised courseware from infringements. It is advisable to use Safeguard Secure PDF Writer and choose the various protection options such as stop printing, allow printing or limit the number of prints, add dynamic watermarks to viewed and or printed pages. Build expire e-learning courses on a specific date, after a number of views, after a number of prints, or after a number of days from opening.

Future trends in digitalisation

With the ongoing advancement of technology, there are newer trends emerging in online learning content digitalisation all of the time. The newest trends around developing games-based learning, gamification of learning content[9], simulation learning[10] and using artificial intelligence (AI) and virtual reality[11] are gaining momentum and in turn re-shaping digitalisation of learning content.

There are endless debates about the needs of the new generation learner and the methods and instruments that online education providers should offer in order to satisfy these needs and interests. Every year, lecturers and developers face new terms, ideas, and concepts that come up as if they were the only definitive solution to all the problems in online education and learning. The truth is digitalisation is not the only solution to all the problems that exist and to solve in online education. There is no single or a unique solution that will improve the teaching-learning process entirely.

Associate Professor Ashok Chanda is Provost – UBSS Online Campus, Group Colleges Australia

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[9] https://www.teacheracademy.eu/blog/game-based-learning/

[10] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2966567/

[11] Jee Hyun Lee, Eunkyoung Yang, Zhong Yuan Sun. (2021) Using an Immersive Virtual Reality Design Tool to Support Cognitive Action and Creativity: Educational Insights from Fashion Designers. *The Design Journal* 24:4, pages 503-524.