

## **Technologies, Pedagogies, and Practices: Enablers and Accelerators of Education Transformation**

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The NMC Horizon Report: 2017 Higher Education Edition provides an overview of trends and technology developments driving educational changes spanning a five-year horizon for higher education institutions. It profiles six key trends, six significant challenges, and six developments in educational technology. The key trends accelerating higher education technology adoption identified by 2017 report reveals that blended learning designs and collaborative learning as short term; Growing Focus on Measuring Learning and Redesigning Learning Spaces as mid-term; while Advancing Cultures of Innovation and Deeper Learning Approaches as long-term key trends. Further, the NMC-Horizon Report (2017) identifies Adaptive Learning Technologies and Mobile Learning as important development in technology for higher education this year, The Internet of things and Next-Generation LMS till 2019 and Artificial Intelligence and Natural User Interfaces until 2021-22. These trends and developments are an effort to look into the future of higher education.

Let us examine the studies being conducted in open, distance and flexible learning space on how these are trying to address the challenges of higher education from the past issues of GLOKALde Journal.

GLOKALde is an international peer-reviewed quarterly e-journal, focusing on the issues and challenges related to theory, research and information services to global learners of open and distance education. It is an official e-journal of UDEEWANA-United Distance Education for Eastern Europe Western Asia Northern Africa. Its published with 123 articles, with 74 articles around 17 countries via 12 issue since 2015 January.

It strives to meet the continuing education needs of practitioners and educators by providing a forum for the discussion of extended learning strategies, policies and practices, and trends in information technology as they impact the delivery of student support services for distance learners and faculties. Now in its third year of publication, it has published 12 issues so far.

For this special issue (July 2017) seven published papers are being re-published which represent various technology application or impact areas, for example, mobile application, e-learning needs analysis of pilots, using podcasts, twitagogy, screencasting, educational opportunities in prisons, and interactive exercises using open source tools etc.

Kurubacak & Acarbay (2017) conducted a needs analysis for in-service training programmes for trainee pilots and instructors to find out their impression of adopting elearning in these training programmes. The study found some 'distanced attitude' of trainee pilots to the use of eLearning in theoretical pilot training and recommends

designing educational environments in a manner which would enhance access to eLearning and providing incentives to trainees to use these environments in their training. The study also recommends setting up of Commissions by national and international aviation authorities to weed out the doubts of trainees and instructor pilots by guiding towards more innovative approaches.

Bloom's taxonomy has been a milestone for curriculum and instruction designing. Ekren and Keskin (2017) evaluated the use of revised Bloom's taxonomy to design mobile learning applications to realise its impact on cognitive processes and learning outcomes, course objectives, and the relations between assessment and learning/teaching activities. The original taxonomy represented six cognitive domains such as knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation. This model was later on revised by Anderson, Krathwohl and Bloom (2001) by converting the noun forms to verb forms. The authors report an easy integration of mobile devices into activities and materials in learning environments as collaborative learning, constructive learning and situated learning and stress on identification of learning outcomes and learning objectives which support pedagogy for mobile learning. The authors recommend the use of revised Bloom's Taxonomy and other alternative models (like SOLO taxonomy, PI model and Fink's taxonomy) to build mobile apps for learning.

There is good number of studies available on benefit of audio resources for teaching and learning. Madiope and Makoe (2017) examined the effectiveness of podcasts for distance education students to be accessed through mobile devices. They report that the interaction was enhanced among the learners as it provided better guidance and allowing them setting their pace while studying through print-based materials.

Pew Research Center in its Fact Sheet (12 January 2017) in their study reported on most popular social media platforms like Facebook, Twitter, Pinterest, Instagram and LinkedIn. Casey (2017) claims, "Social media is one of the biggest opportunities that companies across industries have to connect directly to consumers. And it turns out that social media users can be pretty receptive -especially heavy users, who spend over 3 hours per day on social media." This makes the social media very important for education too. Carlson (2016) explored 'Twitagogy' and recalls his journey of teaching and use of twitter in his classroom. He reveals that his "twitter account has become an incredibly rich space for communication and professionalization. I have started developing relationships with peers working along SoTL lines, interests in the digital humanities, and the profession."(p.90). He makes us cautious too about use of technology that "it will either bring people together, or drive them apart." while finding his experience as unifying.

Soto (2016) tried her hands on use of screencasting for mathematical problem solving. There are many screencasting software applications available used in teaching and

training where the lecture or demonstrations are recorded and made available as e-resources, like when mounted on LMS.

Through her experiments she found that by allowing students to record and view their screencast, they achieve higher level of SAMR model. Students can create rich media, engage in problem solving and reflect on their mathematical thinking. Using this simple technology, teachers can 're-organise social practices around action'.

Farley et. Al. (2016) examined regional differences in the distance education practices in prisons in Australia, United Kingdom, Turkey and Nigeria. When it comes to use of technology, prisons have to adopt special measures. The authors recommend the acquisition of digital literacy skills are key for post-release employment or

education. Further, they caution that for want of time, space, resources, energy and motivation to engage, the technology will not improve access and outcomes.

Kuswanti, Meilani and Raidy (2015) studied the influence of internal and external factors on students' participation in online tutorials in distance learning. Tutoring or counselling in distance learning is very important part of instructional delivery. As a part of learning support services, students are provided access to Online Tutorial (Tuton) where students participate actively during studying the materials, discussions and writing tasks. These activities are affected by internal and external factors. The authors report that better participation rates were observed in students who were highly motivated to follow Tuton. The authors have suggestions for managing external and internal factors.

These studies indicate that they represent different types of trends emerging and what kind of challenges they can meet. I hope you will enjoy revisiting these studies.

In addition, Dr Ugur Demiray has made some [announcement](#) on these studies. He invites you to visit Udeewana Award Page Criterions ([www.udeewana.com](http://www.udeewana.com)) award page ([www.udeewana.com/?pnum=16&pt=UDEEEEWANA+Awards](http://www.udeewana.com/?pnum=16&pt=UDEEEEWANA+Awards)) to read more on a competition for **UDEEEWANA 1st AWARDS Article** to be held for its 6th year (volume 6 Number 1) in 2019.

Happy Reading!

#### REFERENCES

Adams Becker, S., Cummins, M., Davis, A., Freeman, A., Hall Giesinger, C., and Ananthanarayanan, V. (2017). *NMC Horizon Report: 2017 Higher Education Edition*. Austin, Texas: The New Media Consortium.

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Allyn & Bacon.

Casey, S. (2017). 2016 Nielsen Social Media Report. Web Report 17 January 2017. Retrieved on June from <http://www.nielsen.com/us/en/insights/reports/2017/2016-nielsen-social-media-report.html>