INFORMATION COMMUNICATION TECHNOLOGY (ICT) IN HIGHER EDUCATION FOR TEACHING, LEARNING AND EVALUATION

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ABSTRACT :
Information communication Technology is a pervasive presence in higher education, revolutionizing teaching, learning, and evaluation. This technological horizon has simplified the learning process for students. In today's world, the centrality of technology is undeniable, with ubiquitous access to the internet through computers laptops and android smartphones. Its applications extend beyond personal communication to deeply enrich educational endeavors. Higher education institutions in India are actively harnessing the power of ICT to foster smart and digital citizenship. This shift is exemplified through the adoption of technologies like learning managementsystems (LMS), virtual classrooms, digital resources, advanced laboratories massive open online courses (MOOCs), and educational channels such as DD Science and SWAYAM PRABHA.

KEYWORDS : *ICT, higher education, LMS, teaching, learning, evaluation.*

1. INTRODUCTION:

Higher education in India encompasses a rich tapestry of diverse categories, spanning arts, commerce, science, engineering, pharmacy, medical, paramedical, agriculture, vocational and technology. The evolution of teaching and learning methods in this educational landscape has been a dynamic journey. Once rooted in the ancient traditions of the 'Gurukul' system, it has gracefully transitioned through various phases over time, progressively yielding to modern educational paradigms.

Today, as we stand at the crossroads of this educational transformation, we find ourselves in an era where the spotlight shines brightly on audiovisual tools. These methods of learning can be broadly classified as either teacher-centric or student-centric, in teacher centric method teacher is active and student becomes passive learner while in the student centric methods student become active learner. The chasm between traditional and contemporary educational approaches is artfully illustrated in table 1.

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Table1. Comparison between traditional and modern learning methods

	Traditional classroom	Modern (E-Learning) learning
Classroom	• Physical-limited size • Synchronous	• Unlimited • Anytime, anywhere
Content	• Textbooks/library • PowerPoint/transparency/etc • Collaboration	• Multimedia/simulation • Digital library • On demand (anywhere anytime) • Synchronous & Asynchronous Communication • Audio / Video • Flexibility

In the traditional classroom, teaching was facilitated through visual aids such as charts, posters, photographs, models, and tangible objects. However, the winds of change have ushered in a new era where modern teaching and learning processes are underpinned by a proliferation of projection and audio-visual devices. Radio, television, tape recorders, and an expanding array of support materials have enriched the educational experience. Yet, this transformation has subtly steered us away from the use of tangible objects, models, and hands-on experiments, thereby posing challenges to the efficacy of the teaching-learning process.

However, it is within this transformative landscape that the advent of Information and Communication Technology (ICT) tools emerges as a game-changer. Computers equipped with superior graphic capabilities and robust computing power, when coupled with projection devices, have seamlessly integrated into the modern classroom. This integration empowers students to visualize abstract concepts, thus bridging the gap between theory and practice. An extensive array of audiovisual resources, including graphics, animations, models, drawings, photographs, audio, and video, has been curated to enhance the learning experience.

Simultaneously, the limitless potential of computers for computation and manipulation has opened new horizons, promising a brighter future for the transformation of classrooms and teaching-learning practices. This symbiosis of technology and education heralds a promising era where innovation and engagement redefine the boundaries of learning

2. RESULT AND DISCUSSION
2.1. Revolutionizing Education through ICT-Based Teaching, Learning and Evaluation

In the contemporary world, the realm of effective e-learning has metamorphosed through the ingenious application of Learning Management Systems (LMS). This digital marvel has become the linchpin of teaching, learning, and the evaluation process, all seamlessly woven into the fabric of Information and Communication Technology (ICT). The Learning Management System, an ICT-driven integrated online software tool, serves as the custodian of user learning data, endowing students, educators, and LMS administrators with access to an extensive array of online learning services. This transformative platform leverages the internet as a dynamic conduit for knowledge dissemination.

2.2. ICT in Teaching: Unveiling the Future of Education

Teaching stands as the very backbone of our educational edifice, and ICT has emerged as its steadfast ally in elevating the quality of pedagogy. Within this digital metamorphosis, a spectrum of sophisticated tools takes center stage: Desktops, laptops, projectors, digital cameras, printers, photocopiers, tablets, pen drives, iPods, web boards, scanners, microphones, interactive whiteboards, DVDs, CDs, flash drives, and even video games, to name a few.

Within the realms of the Learning Management System (LMS), a symphony of raw data is meticulously orchestrated, sourced from diverse fountains such as encyclopedias, reference books,

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websites, textbooks, research articles, and beyond. From this vast reservoir, educators craft educational study materials of unparalleled quality, encapsulated in the form of immersive PowerPoint presentations, captivating audio and video recordings, and interactive simulations. These educational treasures are gracefully disseminated through platforms like YouTube and the venerable LMS-Moodle. Occasionally, they even grace the screens of free educational channels such as SWAYAM PRABHA and IGNOU. Students, armed with smart devices ranging from Android and iOS phones to tablets and laptops, can effortlessly access this wealth of knowledge anytime and anywhere. Such is the beauty of ICT in education, where learning knows no temporal or spatial bounds.

2.3. ICT in Learning: Unveiling the Path to Knowledge

Learning is the lifeblood of our educational system, and its success is intricately linked to the efficacy of teaching. ICT provides a gateway to on-demand learning experiences. Through the captivating mediums of simulation, real-world demonstrations, animation, and models, students are empowered to grasp complex concepts with greater clarity. Modern education harnesses the power of Learning Management Systems, animated educational software, and enlightening broadcasting channels to fuel this thirst for knowledge. The Ministry of Human Resource Development (MHRD) has unleashed 32 knowledge-enriching channels known as "SWAYAM PRABHA" to invigorate the learning experience. These channels broadcast a rich tapestry of subject-specific videos at various times, catering to both live and offline audiences. The repetition of this informative content multiple times within a stipulated timeframe grants students the freedom to learn at their convenience, dismantling the traditional shackles of the monopolistic learning system. Students can now explore subjects at their own pace, in their own space.

2.4. ICT in Evaluation: Pioneering the Shift in Assessment

ICT has orchestrated a seismic shift in the examination and evaluation paradigm within higher education. The evaluation process has evolved into a flexible, student-centric model. Innovative initiatives in recent years have heralded the dawn of online and on-demand examination systems, driven by the potent force of ICT. Online assessment has become global norm, placing the student at the epicenter of the evaluation process. In Indiainstitutions such as the National Institute of Open Schooling (NIOS), IGNOU, SWAYAM PRABHA, and various LMS-Moodle platforms have seamlessly implemented online and on- demand examination schemes. Under this dynamic framework, personalized question papers materialize online, moments before the examination, granting students a unique experience. The process of evaluating these online papers unfolds in real-time, with results emerging in tandem. ICT's transformative potential extends to continuous assessment and the ongoing evaluation of student progress.

3. CONCLUSION

In summary, ICT emerges as the guiding light, illuminating the path of teaching, learning and evaluation in the realm of higher education. It ignites the flames of learning within students, transcending the limitations of time and space. As ICT continues to reshape the landscape of higher education, the evaluation process assumes a flexible, student-centric mantle, responding to the individual demands and preferences of each scholar. The enduring legacy of ICT in education is one of empowerment and liberation, where knowledge knows no bounds, and learning knows no constraints.

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