Changing Role of Teacher in Present Digital Era

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Abstract

There is a global concern that our educational systems are obsolete and failing to promote the necessary skills that can adequately prepare our children for the digital technology era. The earlier generations' drive to study was robustly rooted in conscientiousness, on the other hand new generation have different motivational profiles: in their lives interest, emotions, and engagement matter much more. Teachers' role in the present digital era has become more complex in the present changing world; here knowledge is almost unlimited. Teachers are expected to become technologically oriented and responsible not only for their teaching but also for their students' learning. They have to cater for particular needs of individual students in heterogeneous classes, and create a student-centered learning environment which endeavors for excellence, and offers opportunities for enquiry and dynamic learning. Teachers need to meet the standards of the curriculum while enhancing students' creativity, curiosity and motivation. They need to ensure a safe ambience in their classrooms and maintain relationships with students, parents and staff. Today teachers are required to be facilitators helping learners to make judgments about the quality and validity of new sources and knowledge, be open-minded and critical independent professionals, be active co-operators, collaborators, and mediators between learners and what they need to know, and providers to scaffold understanding. In this digital era, teachers' role has shifted from mere preacher to the manager of students social and emotions behaviours; mentor for their learning and over-all development as a balanced citizen; motivator for slow learner and a fast learner in digital environment. He has to keep watch on the time spent by learners for their proper time management which make certain that the learner utilize optimum e-resources. The present paper deals with the changing roles required for a teacher in new digital era.

Keywords : Teacher's Role, Digital Era, ICT Competencies, Teaching-Learning Environment.

INTRODUCTION :

With the rapid technological developments during the last few years, new methods and areas of utilization have emerged in the field of higher education. As a result of this, new knowledge and experience can be disseminated and can contribute to an overall increase in quality and general level of knowledge. The use of this technology in academic education puts high demands on the technology due to the complex nature of the communication, and the content and goals of the teaching and learning must decide the choice of technology. It must also be considered whether different technological methods should be used exclusively or combined with one another or with teaching or learning in the same room. The methods demand both pedagogical and didactical knowledge in order to ensure quality in the various areas where the technology is applied, and furthermore, a basic understanding of technical possibilities and limitations of the technology. This is essential in order to ensure that the whole spectrum of perception (senses) is activated in teaching-learning environment.

THE CHANGING ROLE OF A TEACHER :

The educational system is constantly being challenged to offer better education to more people, at the same time as technological development continually opens up new possibilities and methods of learning. Education and tutoring can be described as complicated relationships

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in which many factors affect the whole. Some of these main factors are the students' learning preconditions and enhancing learning through ICT. The students' preconditions for learning concern their working habits, attitudes, motivation and knowledge which are all central factors in teaching and learning. It is important that the teacher is conscious of this, and intervenes in the processes when it is desirable or natural to do so. Methods in the field of ICT often require different things of the teacher at the same time demanding more student activity.

As a professional practitioner, the teacher is likely to become a role model or standard for his or her learners. The teacher should also be a subject developer. By this one means that the teacher should, through continual work, bring new knowledge to the subject through his/her own experience, and research and development work. The teacher's role as a subject disseminator is also emphasized by focusing on the "good teacher", who in an inspiring and lively manner, awakens the desire, and therefore also the motivation for learning. Some teachers feel threatened by new technology and experience - that this may make the teacher superfluous. The way we see it, however, technology will never be able to make the teacher redundant, but it may make the teacher's role different.

The teacher's daily plan is often full of countless challenges and the time constraints are very tight. However, it is expected that creativity should be given space at work in an active search for new knowledge and new methods. In this connection it is important that the teacher feels competent to move forward with the new tasks in hand. Motivation and competence are closely connected. Increased competence leads to increased motivation to develop what one is doing, and this in turn leads to one wanting to try something new. In this the interplay between teachers, teacher & learner and between learners becomes very important. Positive interplay and commitment increases the motivation and the learning effect.

In distance education, as in all types of teaching, teaching material is presented and a structure for dialogue between teacher and learner is established. Here the teacher and learner meet as part of the learning process. The learners are fellow members and must to a larger degree than in traditional teaching, be made responsible for their own learning and faith in their own ability to master the learning situation. The teacher has a responsibility to help promote learning preconditions such as working habits, attitudes, knowledge and motivation.

Thinking through various teaching methods and assessing which possibilities they offer for learning is not just important, but also challenging for the teacher. New technology is continually opening up new applications, and without the urge to try out new methods the teacher's work can seem monotonous, and the students can miss out on good and varied teaching set-ups. The importance of variation in teaching is often overlooked, although this is closely connected to the students' motivation and activity. The use of ICT must be carefully planned and put into a pedagogical framework. It must, in other words, have a subject context and never be slung about in a careless way. It requires the teacher to possess good pedagogical and didactical knowledge and be able to apply this in such a way as to promote learning processes.

The ICT Competencies are a set of technology standards that define proficiency in using computer technology in the classroom. The competencies consist of computer-related skills grouped into four general domains: (1) Basic Technology Operation, (2) Personal and Professional Use of Technology Tools, (3) Social, Ethical, and Human Issues, and (4) Application of Technology in Instruction.

IMPORTANCE OF ICT COMPETENCY FOR TEACHERS :

Teaching is a complex activity. Competent teachers apply broad, deep, and integrated sets of knowledge and skills as they plan for, implement, and revise instruction. Technology proficiency, including technical skills and instructional applications is one dimension of teacher competence.

The acquisition of technology knowledge and skills must be connected with the development of a broader array of competencies. Consequently these competencies were largely ignored by teacher-training institutions. Typically, colleges of education simply required a single media course to satisfy accreditation requirements; often, colleges were reluctant to insert yet another course into an already overloaded curriculum.

The International Society for Technology in Education (ISTE) has actively addressed the technology isolation problem and has recently released a set of revised teacher technology standards. Developed through a rigorous process of expert and lay-person input, the NETS-T Project (National Educational Technology Standards for Teachers) explicitly describes what competent teachers should know and should be able to do with technology in the context of broader teacher competencies. The NETS-T standards are categorized as follows:

- technology operations and concepts,
- planning and designing learning environments and experiences,
- teaching, learning, and the curriculum,
- assessment and evaluation,
- productivity and professional practice,
- social, ethical, legal, and human issues.

BASIC TECHNOLOGY COMPETENCIES

Fundamental skills come first - like managing electronic files, using computerized databases and spreadsheets, sending and receiving e-mail messages, and creating documents with graphics. These skills are prerequisites for more advanced skills, such as accessing online resources, creating desktop publishing documents, developing multimedia presentations, selecting and customizing instructional software to fit students' needs, streamlining record-keeping and other administrative procedures with electronic tools, and observing the correct protocols in sharing intellectual property. The competencies are organized into five aspects: publication, communication, research, media and presentation.

1. Publication

- ***Produce and manage learning documents.*** This includes composing standard educational publications such as notice, letters, handouts for students and class lists; teaching students how to prepare their own documents on a computer.
- ***Analyze quantitative data.*** This includes administrative work such as putting student test scores into a spreadsheet and analyzing them, as well as preparing curriculum materials with digital tables and graphs of curriculum content.
- ***Organize information graphically.*** One can use specialized graphic organizer programs, as well as general tools such as word processors or presentation programs, to create digital representations of educational information.

2. Communication

- ***Communicate using digital tools.*** These include email, instant messaging, mobile colleagues, and knowing how to organize and manage these tools in the classroom.
- ***Collaborate online for learning.*** Takes advantage of the tools listed above plus blogs, wikis, chats, audio and videoconferencing to bring outside resources into the classroom and to encourage academic collaboration among students.
- ***Publish learning resources online.*** From a simple teacher's web site to a complex curriculum wiki to the online posting of student projects, to podcasting, the teacher has mastered an array of tools and techniques for publishing learning materials online.

3. Research

- ***Use effective online search strategies.*** In their professional preparation, as well as in their classroom assignments, the teacher chooses the most appropriate research tools and

databases, and applies the most effective search techniques, to produce useful and safe online resources in the classroom.

- ***Evaluate and compare online information and sources.*** Once located, the teacher knows the difference between authoritative and untrustworthy sources, how to ascertain authorship, and how to find sources with different points of view. And can teach these skills to students.
- ***Save and cite online information and sources***. The teacher knows a variety of methods for bookmarking and saving valuable online resources so that may easily be found later and employed in learning materials.

4. Media

- ***Differentiate instruction with digital media.*** This includes an awareness of assistive technologies for disabled students as well as the ability to use a computer to prepare and present academic ideas in a variety of forms for better learning by all students.
- ***Capture and edit images, audio, and video.*** The teacher can use digital still and video cameras, edit their output on a computer, and produce learning materials that range from simple slide shows to the archiving of student presentations and performances.
- ***Produce digital multimedia educational experiences.*** The teacher can combine media from a wide array of sources into a useful presentation of academic content, and can teach this skill to students.

5. Presentation

- ***Create effective digital presentations.*** Using common tools for preparing slide shows, videos, and podcasts, the teacher can create presentations that follow the principles of communication, and can apply these design principles to the evaluation of students' digital work.
- ***Deliver digital multimedia presentations.*** Using common devices such as computers, projectors, and screens, the teacher can set up classroom presentations and arrange for students to do the same.
- ***Employ new media devices for learning.*** From large Smart Boards to tiny iPods to science probes, the teacher can incorporate a variety of digital devices into the instruction in the classroom.

These are the basic skills that just about every teacher needs, no matter the subject or grade.

STRATEGIES FOR PREPARING TEACHERS TO USE TECHNOLOGIES :

Given the importance of well-trained teachers for technologies to be effective in enhancing learning, what might education policy makers do to support and encourage appropriate strategies for training teachers? No single approach to professional development will meet the learning needs of all teachers seeking to develop skills and knowledge in the integration and application of technology.

Teachers' progress through a series of five predictable stages as their expertise in technology adoption and integration evolves. It is likely that within a school, and certainly within a district, teachers will exhibit varying levels of expertise and therefore a variety of different professional-development opportunities will be required.

A brief overview of the kinds of possible training strategies is as follows:

***1. Encouraging Teachers to Acquire Necessary Skills*:** For many teachers, having access to technologies is not viewed initially as a benefit. Teachers may consider technologies yet another demand on their time, a set of tools they did not ask for and do not know how to use. Some teachers feel they are already doing a good job in the classroom and wonder how technologies will contribute to improvements. Still other teachers, of course, welcome the technologies and are eager to learn how to use them.

Policies that either mandate or provide opportunities will cost money, but without the establishment of policy that mandates or provides professional-development opportunities (or, ideally, both), teachers are unlikely to acquire the skills they need to use the technologies available to them, thus negating the potential benefits of the investment that has been made in infrastructure.

2. Providing sustained support for Teachers' use of Technologies: It is very important for teachers to acquire knowledge and skills in how to use technologies. But once teachers begin to acquire such skills and begin to use technologies, there is a need to provide means of continuing support to teacher use of technologies. That is, initial training of teachers is not likely to guarantee that the technology infrastructure will continue to be used.

***3. Evaluating Teacher Use of Technologies*:** The issue for education policy makers here concerns the extent to which a teacher uses technologies effectively, which can or should be an important criterion in evaluating a teacher's performance. This is a complicated issue for policy makers. This general issue is complex in part because of divided opinion on how important technology use is to the future well-being of individual citizens in a given entity, or to the entity as a whole. There are many writers who make the argument that neither an individual nor a state or nation can hope to survive or prosper unless they are very familiar with technologies. Others dispute this claim and worry about the survival of traditional cultural values in a technological age. Given this deeply-rooted controversy, establishing policy according to which teacher performance will be judged is of critical importance.

EFFECTS OF DIGITALIZED ENVIRONMENT ON THE TEACHING-LEARNING PROCESS:

Lentell (2003) states that academics have to be knowledge experts, effective listeners and communicators as well as coaches, facilitators, mentors, problem solvers, designers, supporters and resource coordinators. As an effective teacher in the digital era, he/she has to know where to find relevant information, how to solve problems and what to keep up learning. General speaking, a teacher has to improve teaching methods and develop professional learning continually along with new developments. Hence, teachers in the 21st century have to comprehend that change is inevitable and must accept and prepare for growth. Most essentially, learning from networks related to professional developments or personal interests put away teachers' time-consuming efforts and prepare them with rationality when change happens. If the teacher employs digital resources judiciously, he can create a digitalized environment having the following effects on teaching learning process:

- Has an improving effect in terms of quality of student work and practical examples through visualization;
- Improves poor handwriting and languages skills through word processing;
- Facilitates self-pacing with increased capacities to deal with individual learning styles as students can work at the pace and intensity suitable to their needs;
- Enables collaborative learning with little indication of the isolated learner;
- Encourages use of peer coaching and peer reviews;
- Develops communication skills and awareness of different audiences;
- Has impact on resource–based learning and access to real world information through the Web;
- Enhances information consistency and accuracy adding to authenticity of learning tasks, with pragmatic and advanced information;
- Augments learner motivation through practical activity, visual demonstrations and improved modes of presentation;
- Promotes independent learning and individual preferences for process, outline, method and design;

- Furnishes learners more control;
- Lets learners to produce high quality multimedia products;
- Transforms teacher practices, planning tools and assessment rubrics;
- Boosts opportunities for classes to advance and for learner experiences to shape results;
- Can inspire students to be committed to learning and to contribute in learning activities;
- Can develop students' higher-order thinking: their ability to apply knowledge and skills to analyze challenging problems, grasp broader concepts, and devise new ideas and solutions.

CONCLUSION:

Teachers are central to the effectiveness of technology infrastructures that serve education. How teachers acquire the skills they need to use technologies and how the technology is actually used and to what ends, are critical policy domains that must be carefully explored. Hopefully, issues of this nature will be considered as decisions are made about technology and as educators make decisions about the future shape of their schools. However, it is obvious to anybody with their ear on the ground that we will need to reevaluate the role of teacher, and construct our education systems, not so be pale imitations of older classrooms, as we see in the rise of the massively open online courseware. We don't need apps and hacks for learning, though they do help, what we need is an introspection into role of teacher, competing with internet and helping students learn, think, reflect, and implement their knowledge, as they collaborate and contribute, while "learning on the internet".

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