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ICT in Education: Possibilities and Challenges

Dr. Prakashkumar J. Patel

Associate Professor, Shree Gayatri College of Education, Naroda, Ahmedabad, Gujarat (India)

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***Corresponding Author**
Email: prakashjpatel1979@gmail.com

ABSTRACT

In the inaugural lesson for the academic year 2004-2005, the author reflects on the role of information and communications technology in education. He raises some fundamental issues and questions whether ICT is suited to transmitting knowledge, particularly to students who are not already highly motivated to learn or well versed in the art of using and interpreting information. For his analysis, he takes as a point of reference the world of business and offers a brief look at the changes brought to the sector by ICT. To date, the main application of ICT in the business sector has focused on aiding access and processing of large quantities of information for employees and management with the principal aim of increasing productivity. In the case of education, however, little or no information is being used to improve student performance, mainly because education managers are largely illiterate in information management tools. Likewise, despite schools having more and more access to ICT, new technologies are still scarcely used as part of the teaching methodology. Once again, it is the lack of training that creates difficulties: many teachers do not have the necessary IT skills and feel uncomfortable, nor do they have the specific training needed to be able to use the new resources in the classroom. In the university sector, ICT has already made an important impact, whether in terms of teaching, research or administration; however, despite some exceptions, there are few real examples with educational models that are based on this technology and there is still an important social preference for traditional educational models.

INTRODUCTION

For more than forty years, innovative educators have been optimistic about computer uses in schools.1 Their vision for computers— or better, their multiple visions—have not been realized to *This essay was originally prepared for the OECD/Japan Seminar, «The Effectiveness of ICT in Schools: Current Trends and Future Prospects,» Tokyo, Japan, December 5-6, 2002.

1. As early as 1962, business trainers were already describing the now familiar virtues of computer-based learning experiences: «they [computers] condense extensive decision-making experience into short periods of time; they emphasize the need of reaching decisions with the incomplete data at hand; they give role-playing experience; they make possible playback of training activities; and they induce feelings of participation» (Plattner and Herron, 1962).

ICT IN EDUCATION

Most analyses of ICT in the educational sector focus on the impact it has had on pupil teaching/learning. However, as our analysis of the private business sector suggests, this focus, although obviously important, direct changes in the way teaching and learning are organized should be only part of the effect ICT has in the organization of the education sector. As above with the business sector, we analyze the role of ICT in education in three parts:

- Changes in the management of the educational sector associated with ICT.
- Changes in the work process in education associated with ICT.
- Changes in the training of educational personnel and of students associated with ICT.

ICT AND MANAGEMENT OF THE EDUCATION SECTOR

As in business, ICT has contributed greatly to networking among schools and universities and among individuals in schools and universities. This has been especially true in the developed countries, and is now spreading to developing countries. For example, Enlaces—the Chilean government's educational ICT system— has made a priority of connecting rural schools to the Internet and thereby integrating them more tightly into the larger educational system, and hooking them up to the outside world. Many school districts and almost all universities now communicate internally and externally largely through e-mail. However, this is where the similarity with business begins to fade. Schools and school districts hardly use ICT to manage the quality of output, or to raise teacher productivity, or to reduce costs through analyzing spending. «As in business, ICT has contributed greatly to networking among schools and universities and among individuals in schools and universities. However, this is where the similarity with business begins to fade. Schools and school districts hardly use ICT to manage the quality of output, or to raise teacher productivity, or to reduce costs through analyzing spending.» Beginning in the 1970s US school districts regularly used computers to store student and personnel data. With the

advent of high-speed personal computers in the 1990s, computers became a permanent fixture in school offices. In many school districts in the U.S., school administrators have access to data from district computers; in many schools, individual teachers are hooked upto central data files either in the school or district office. Educational administrative offices in most developed countries have ICT, and data collection in the developed world is universally computerized. Bilateral assistance agencies and international banks put increasing emphasis in the 1980s and 1990s on using ICT to collect educational data and to improve the administration of educational systems in developing countries, particularly through decentralizing educational offices to regions, states, municipalities, and states themselves(cite). As in developed countries, such ICT systems have been used mainly for collecting enrollment data, student attendance, basic information on teachers, and basic information on schools. In other words, ICT mainly helps administrators get a better idea of the size of the educational system, student dropout and repetition, and the number of students per teacher. In some sense, this can be characterized as measuring the «efficiency» of the educational system and as a first step in improved resource allocation. We could liken this to inventory control in business. Educational administrators need to have basic information on student and teacher flows, probably also of school supplies, and how much the system is spending on various inputs, in order to make the most basic resource allocation decisions.

CONCLUSIONS

Education everywhere in the world, including in the OECD countries, is largely publicly financed and publicly provided. ICT is rapidly becoming ubiquitous in developed country public schools and is spreading in developing countries education systems. As is evidenced by the OECD's recent case studies of schools in 23 countries, ICT is being used in many imaginative ways to teach higher order reasoning skills. However, the case studies also reveal that the most common use of ICT in schools—even in these «cutting edge» ICT schools—is student networking and data collection through the Internet and student use of text editing programs to produce and edit their written work. Whereas these uses may increase student motivation to learn science and social studies and to write, there is little evidence that student higher order learning improves significantly as a result of ICT. On the other hand, there is much more evidence that computer assisted instruction improves achievement on traditional math tests, and—no surprise—that increased student use of ICT increases ICT-related vocational skills. There are still many unanswered questions regarding the role of ICT in education.

Work Cited

[1] Applebaum, Eileen and Rosemary Batt (1994). The New *AmericanWorkplace.* Ithaca, NY: ILR Press.

[2] Batt, Rosemary and Eileen Applebaum (1995). «Worker Participation in Diverse Settings: Does the Form Affect the Outcome, and If So, WhoBenefits?» *British Journal of Industrial Relations.* 33 (3): 354-78.

[3] Becker, H. (1994). «How Exemplary Computer-Using Teachers DifferFrom Other Teachers: Implications for Realizing the Potential ofComputers in Schools.» *Journal of Research on Computing in Education.* No. 26.Benveniste, Luis (2000).

