

What Has Changed? Evolution of Educational and Corporate Environments: The Role Technology Has Played in the Way We Learn and Work.



In 1978, typical corporate settings had in part gravitated to open office workstations concepts and enclosed offices - the former to provide flexibility for what had become an accelerated rate of change and "churn" in the corporate workplace. I state "in part" because organizations tended to be more hierarchical than they are at present. Decisions were made more independently and directed to rank and file. The landline telephone was still a main "instrument" of communication. As such, office acoustics was of great importance in the age of the disappearing "office." Paper was still the "currency" of information exchange. File cabinets were abundant, making filing an enemy of flexibility and information sharing. The advent of the fax machine was quite the novelty as it increased aspects of efficiency, though long lines would sometimes form at the machine much as there had been with copiers.



At the same time in the educational arena, the information dissemination format of the day was "teaching" and "being taught to," primarily in the form of passive instruction delivery. The lecture format was prevalent, with some exceptions. For architects and other arts and sciences students a studio, art class or lab foretold a shift to what is now termed "active learning," or participatory learning methods. Libraries were primarily repositories for books and reading/reference areas have evolved into highly electronic information commons areas. Today's information commons approach includes settings for collaborative work areas where learning and discussion may take place and not just individual study, though this is still an important activity. In the late 1970's, spaces tended to be defined more strictly, while at present some of the distinctions have been blurred, and spaces are used in a more flexible manner. Evidence the fact that students study, work, eat, sleep and socialize in libraries more so at present.

The introduction of personal computers in the early 1980s and successive advances in technology, internet, wireless communication and highly portable devices have changed much in the workplace and in educational settings. For instance, open offices, while not appointed with a desk and credenza, are the norm again but for other reasons. (The reference to



being the norm again is due to the use of relatively high workstation panels often referred to as cubicles during the in between years). What has happened relatively recently is that “texting” (either email or text message or other similar format) has reduced communication via telephone use in some professional work settings. This has resulted in a quieter office environment and has improved efficiency. Email permits the teamwork of multiple minds being connected in “one to many” relationships or “many to many” relationships. Quiet spaces for focused work are still very much needed however. As some of the hierarchical corporate organizations have flattened, it has resulted in a higher degree of collaborate working supported by the design of the more open and flexible workplace as well as access to highly portable technology and information sharing.

Ironically, in classroom education one might spend an entire semester in a lecture series listening to a professor or teacher without speaking or participating themselves. (This assumes a separate discussion section if at all). Collaboration was not encouraged nor even permitted in many learning settings. Today “active learning” classrooms have migrated the “studio” or “shop” techniques and learning of schools and technical colleges to general education settings, where team work, collaboration and participation is how students learn and “imprint” their learning. Educational institutions still struggle with how much collaboration versus individual learning needs to occur, certainly as it pertains to testing and assessment activities as opposed to the learning phase of instruction.



The workplace has shed file cabinets (I am not sure that this is an absolute), becoming more virtual, efficient and nimble. Coming to work is not even a certainty as virtual private networks allow working remotely from anywhere including home, in inclement weather days or as per one’s employment practice permits. This has an impact on potentially lessening vehicular traffic and loss of productivity, time and efficiency. Another benefit is the reduction of the carbon footprint assuming that electrical service commensurate with working on the internet is more efficient than driving to work.

Schools, colleges and universities are able to now make learning available anytime. Research via the internet and free sources are opening



doors for many. Massive open courseware (MOOC), has become a recent option as several universities have forged ahead with this option. MIT has had a web portal, MIT OCW (open course ware), for a number of years and posts free resources for those motivated to access. Some forward thinkers believe that half of education will be delivered online in the future. This may be the case though the MOOC's have been having their share of technical difficulties even at the very present day. The success of the various learning methods will depend on how we learn individually, and it has been stated that blended learning may be the right approach to provide the benefit of technology while not dismissing the benefit of great one-on-one teaching and personal (not virtual) interaction.

While technology has had many positive impacts, we were all aware that increased efficiency due to greater use of technology might potentially reduce jobs. What is of interest is that we are all working harder than ever. Instead of having more leisure time as was expected as a product of technology, we have blurred the line between our personal and work lives. Surely there might be a way to use technology to increase free time, quality of life and make it a catalyst for employment.



Knowledge continues to be the currency of the foreseeable future and the hope to develop needed skills for the new economy. Other factors taking hold in the workplace are the concept of "hoteling" or sharing of workstations. This is made possible by portable technology and information sharing and not having the need to personalize and get assigned to a permanent workstation. This may be positive for organizations which need to form malleable or changeable work teams to suit project needs. Another trend is to be able to work in any setting (much like educational environments have had their spatial "boundaries" blurred) such as workplace cafés, kitchens and lounge areas. Social environments are positive in educational and work environments in building relationships - especially when one considers my observation about the extent of text-based communication and the need to interact on a more personal and private level to build trust and teamwork.

A recent trend is the greater co-mingling of educational facilities within the workplace. I say "trend" loosely as this is not a new eventuality



in some respects. I have long held the view that the line between educational and corporate settings will become very blurred in the future. Collaboration between educational institutions and the greater communities these reside in has been a positive economic catalyst in a number of ways including workforce development. Of course there are not absolutes, and my observations don't pertain equally to all types of work or learning settings.

Another key trend is that both in education and the workplace, the multi generational aspects have become more prevalent – not only for economic reasons, but also because we value continuing education more so for its own sake, and lifelong learning has become more important. Returning older students or first-time older students in educational settings is more so the case today. Our recent economic conditions have made it more difficult to retire, and many of us are working and planning to work longer. The average life expectancy is also increasing, putting a burden on retirement savings.

One thing that is obvious though is that we are not fully taking advantage of what has changed to improve the quality of our lives fully, as evidenced by our hectic routines. That personal examination of what can change for the better is a challenge we should all consider.



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I started my architectural career some 34 years ago in downtown Milwaukee in an in-house corporate division of a bank holding company. After a career of almost 18 years, I worked for firms across town, including two years in design-build, then 13 in educational architecture. Just over a year ago, I took on a position in Higher Education Architecture downtown Milwaukee, just a few blocks away from where I started. The return downtown in part caused me to reflect on “what has changed” in educational and corporate architectural settings in these intervening three decades. My two areas of career emphasis appear to be have blended more so than I might have imagined. I have just barely touched upon many areas worthy of further discussion. It is my hope to continue the dialogue.

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