

Digital Learning: Why tomorrow's schools must learn to let go of the past.

Thomas Layton - Electronicschool.com

The big mistake in planning for the school of the future is starting where we are today and imagining how to move forward. With that approach, we necessarily drag along a great deal of excess baggage. Instead, we should begin with where we want to be, where we think we will be, and work back through all the steps necessary to get to that point.

Let us begin, then, with a description of the "digital child," the boy or girl who came into existence and lived his or her whole life in a digital world. This child has never known a time when computers were not an ordinary part of day-to-day life, or a time when constant change in the world was not the norm, or a time when it was difficult to access information or to communicate with other human beings with little regard to their actual geographical location. The digital child is the offspring of parents who were not born in a digital world but grew up during the transformation from an analog world to the digital one. Even so, they share with the digital child a number of common characteristics that make them different from the analog parents and analog children from the latter half of the 20th century.

Time

For the digital child, life is a balance between working, learning, playing, and tending to physical and spiritual needs. These aspects of life are not broken up into concrete and nearly immobile blocks of time, however, as they traditionally have been for most 20th-century children. Instead, working, learning, and playing are interspersed throughout the day and throughout the year. It's not that routine is unimportant for the growing digital child. It's that

the timing of these various activities is tailored to the child's individual needs and desires, as well as to the schedules of the child's parents. After all, working and playing are not necessarily best done at the same moment for all children, and digital parents do not necessarily follow the 8:00 to 5:00 work regimen of their forebears.

Location

Just as time is fitted to the child, so is the location of life's activities. Learning does not always take place in the same building or even at the same longitude and latitude. Learning is something that is a constant throughout the day, as are work and play. All these activities are done at home, at "school," and in the community, both physical and digital. (Of course, safety in both of these worlds is of primary importance for digital children.)

Activities

In fact, the lines between what is learning, what is work, and what is play are difficult to distinguish. Activities are no longer compartmentalized according to time and place -- the time for recess, the place at school where the computers are housed -- and that has tended to blur the lines. Of course, there are times when the digital child is clearly at play or clearly at work, but there are also many times when these activities are inseparable. Just as 20th-century schooling mirrored 20th-century adult work, with its competition and cubicles and hierarchies, so too does 21st-century schooling resemble 21st-century adult work. The digital parents work at home as independent contractors, or telecommute, or move easily from job to job and career to career, learning as they go and remaining productive as they adjust their hours to their needs or whims. Their work time and play time are often indistinguishable.

Relationships

For the digital child, relationships with other human beings are the most important aspect of life. Together, family relationships, personal relationships, community relationships, working relationships, and learning relationships form the fabric of the child's existence. These relationships are much less subject to time and place than were the relationships forged by the 20th-century child, however. Digital children learn with and play with people whose age, religion, culture, economic status, and first language are quite different from their own or those of their parents. And, most likely, a significant number of these relationships are with people who live thousands of miles away. This is important because, when they grow up, digital children will be expected to work with people of any age, religion, culture, economic status, and first language -- not just at a local workplace, but anywhere.

Technology

An old proverb says, "Fish can't see the water." Likewise, our digital child swims in an ocean of changing technologies. The ebb and flow of new gizmos and scientific discoveries are merely punctuated by occasional technological typhoons reminiscent of the Y2K storm. Quite at home in this swirling sea, the digital student learns to take advantage of each new technological advancement, making the most of its contributions to his or her professional and personal life and confidently awaiting the next new breakthrough.

Temperament

Digital children react to the world rather differently than their 20th-century counterparts did. For example, they are patient with the deficiencies of adults, who often seem hopeless and helpless in

the face of emerging technologies. These children have had lots of practice. After all, they are the first generation in history that is, as Don Tapscott has put it, "more comfortable, knowledgeable, and literate than their parents about an innovation central to society." Digital children are more independent, more intellectually open, more tolerant, and more adventurous than most 20th-century children. They hold strong views and expect instant gratification. At the same time, they are at greater risk from AIDS, school shootings, terrorism, depression, and suicide than their 20th-century predecessors. And they represent a larger population segment than those analog "baby boomers" who dominated the 20th century. Their collective voices are heard above all others.

Learning style

Digital children do not learn in isolation. They might work alone, but they learn in groups (even if some of the group members live in other countries). For them, knowledge is like dropping a pebble in a pond. Waves of understanding wash over the digital classroom. Working out an answer and sharing it with your digital classmate is no longer considered cheating. Cheating is keeping the answer to yourself. Cheating is copying someone else's expression of ideas and knowledge -- not sharing those ideas and that knowledge with others. Learning is collaborative and social, not solitary and competitive.

These children abhor being made to jump through arbitrary hoops. Thankfully, 20th-century work sheets and busywork are a thing of the past. Digital children seek relevance. They want to solve real problems. They want what they do to make a genuine contribution to the world. (Yes, even if they are only in digital kindergarten.) And they want recognition for real accomplishments. They are guerrilla learners, learning only what they need at the moment to solve the problem, to complete the project. Although they

recognize that some knowledge, some insights, some creative works are timeless, they instinctively understand that today's knowledge might turn out to be useless tomorrow. They do not accept the proposition that they must learn something now because it will be useful 10 years from now. They know better.

So what do these digital people want from their school system anyway? They want pretty much what children and parents want today -- only they want the digital version, not the 20th-century analog edition.

Curriculum

Like all schools throughout history, the digital school must prepare students for life in their own time. Because the 21st century is one of explosive social change driven by explosive advances in technology, this will be a real challenge for teachers, administrators, board members, and parents. There are, nonetheless, some constants.

One skill we must help children master is the ability to learn -- to gather knowledge, make use of it, let go of knowledge that is of little use, and then learn new and relevant things. The estimate of the number of totally different careers digital children will have in their lifetime continues to climb. These students must be prepared to perform the tasks of jobs that do not even exist while they're in school. People in the 20th century often had trouble unlearning what they had learned as children, but that process was necessary in order to move forward. Digital children must retain that skill as they grow up -- they'll be called on to use it over and over.

Digital children must learn to read critically, write effectively, listen intently, and speak fluently. They must be able to find information, understand the information they locate, evaluate the

reliability of that information, and see how to apply it to answer a pressing question or to take advantage of a new opportunity. They must be able to communicate their ideas to diverse groups using a variety of media. They must also be able to understand the ideas of others and see how their own concepts might blend with those of their work-mates to solve problems and create new things.

Finally, the digital curriculum must produce citizens who are extremely discerning. With access to an avalanche of information and countless numbers of human beings, the digital child must learn to distinguish the useful from the hype, the genuine from the imitation, the sincere from the con, the quality from the flash, the truth from the propaganda. And to do so quickly and repeatedly.

Flexibility

What the digital family requires of its school system is flexibility, especially the opportunity to choose from a wide range of educational choices. Digital parents expect to custom-design their children's education. The old "my way or the highway" attitude of 20th-century schools is, thankfully, a thing of the past in the digital world. Parents blend and mix educational opportunities afforded by face-to-face classrooms, home schooling, distance learning, private lessons, travel, and other profit and nonprofit educational institutions in the local community or the Internet community.

Choice has been tremendously expanded. The time, place, frequency, and content of instruction is individualized but not isolated. Digital children, as a result, are much more likely than their 20th-century analog counterparts to get what they need or want whenever and wherever they need or want it.

Digital parents react strongly if they perceive that schools are getting in the way of their children's education. As a result, schools

no longer set policies that put the benefit of their employees above the benefit of their students.

Quality

The digital community demands quality in education above everything else. Its members know that an excellent education is the key to thriving in the digital world. They are not misled by the educational/political trends of the analog 20th century: "Standards" have been replaced by choice; test scores have been replaced by products and solutions; and diplomas have long since been replaced by the flow from data to information to insight to wisdom.

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