

Should our kindergartens and schools be electronic media free zones?

This article raises the question of the place of media in educational institutions. Various media formats from the surrounding, general culture are integrated naturally into kindergartens and schools. Schools have always reflected the spirit of their time and culture and the question of media is no different. This article examines another path. A path of resistance and of creating an opposing culture. First, I will examine the position of each one of us, the adult individual, with regard to screen technology, then I will look closely at the relations between the young child and screen culture, and at child development and its relationship to the issue of screen technology. Finally, I will attempt to show that educational processes and institutions should, fittingly, be media-free safe spaces.

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The era of metal, the age of iron
reminds me of a beast from the vision of Daniel
beast of metal, beast of iron
so similar that I take fright...
All these computers
Which lull to sleep, which tear out
Our fingers...from our world
High on progress and development
To work mindlessly and to serve
To be used by and oil the
Beast of metal the beast of iron
Their young reaching everywhere
The reign of metal the kingdom of iron

(From: “The Iron Beast” by Meir Ariel)

The question of humans versus the machine

Screen culture has a tendency to control us.¹ It is not so simple to withstand. Between the smartphone screen and the computer screen, between the tablet screen and the television screen, between WhatsApp and Facebook, text messages and Twitter, we human beings are less and less able to take responsibility for our souls, our thoughts, our very existence. The question of who is sovereign stands before us in all its pungency. Are we sovereign over the various forms of media, controlling them, directing them according to our will, free in our contact and use of them, or are they sovereign over us, deciding for us, using us. Human culture was never, and with it each and every one of us, given to a greater cultural and existential threat. It is, in fact, the technological age, its many promises, the comfort it offers and the relative abundance the majority of us enjoy that confronts us as a society and as individuals with the burning, existential question: will humans overpower the machine or will the machine overpower humans (see Carr, 2010; Ellul, 1965; Postman, 1987, 1992; Turkle, 2011; Zerzan, 1998)?

The literary imagination foresaw this trend and, from antiquity through the present, has given it artistic form in hundreds if not thousands of books, plays, and films. Among others, are *deus ex machina* of Euripedes, *Frankenstein* of Mary Shelley, the mechanical doll “Olympia” in the dark tale “The Sandman” by E.T.A. Hoffman, the play *R.U.R.* by Karel Čapek that brought to the literary world the term “robot,” the varied and intelligent world of

¹ Neal Postman, in his research and books, has been noting this trend since the 1980s. See, for example: Postman, 1987, 1992; Jaque Ellul describes the very same trend in his well-known book: *The Technological Society* (Ellul 1965); Nicholas Carr and Sherry Turkle focus on the influences of the Internet and the media (Carr, 2010; Turkle, 2011); John Zerzan presents this trend in an even more extreme way analyzing it in detail in his book *Elements of Refusal* (Zerzan, 1988).

robots that Asimov created and, of course, the films *The Terminator*, *Blade Runner*, and *Matrix*,² to note a small sample. The majority sketch a reality in which the machine, the robot or some form of artificial intelligence turns against humans, fighting against them and, at times, even overpowering them. Interesting to us here is Huxley's *A Brave New World* (1958), where he sketches a futuristic vision in which humans choose abundance, comfort, pleasure, and entertainment in exchange for freedom of choice, internal independence, and sovereignty. People in that new world go from pleasure to pleasure, drugging themselves in various ways, all in order not to be themselves. They do not ask questions; they lack wonderment and deliberation. Everything is done by machines, including all actions connected to the inner world of the individual. The hero of the story, who makes an effort to think independently, to deliberate and to ask questions, is the exception and strange, effectively an outsider in society. Postman wrote this about *A Brave New World*: "Those who frightened Orwell were the book banners; what frightened Huxley was the day on which there would no longer be a reason to ban a book because there would not be anyone who wanted to read it" (Postman, 1987, p. 8).

Technology is, undoubtedly, an important and necessary part of our culture. I do not think we should go back in time to when we did everything by the strength of our backs, using much more basic technology. Romanticism is not at issue here, nor is resuscitating the Luddite Movement that opposed the machinery of the Industrial Revolution or the modern Amish movement. The fruits of technology in the modern era are vast and I do not take issue with its positive influence in the areas of health, improvement in living conditions, and supply of food resources to widespread populations, education for all and more. With this, the challenge that technology places before us, as mature individuals of the technological age, is a great challenge of equal measure. As Postman (1987, 1992) wrote repeatedly in his latest

² For a list of articles on the motif of the machine and the human from diverse perspectives see Irwin, 2002.

books, its virtues are as great as its dangers. This is always a Faustian bargain, a double-edged sword. Technology, especially screen technology, challenges us at every moment to be human. It is a struggle over the inner strength of the center of our being. Over the questions: Who am I? Who do I want to be? And am I strong enough, stable enough, and sufficiently aware in order to bring myself to act in the way I want to act?

Given its nature and availability in every place and at all times, screen technology blurs forcibly the separation between “true” reality and virtual reality. Reality itself, in this way, becomes a question. Magical, colorful worlds filled with exhilaration spill over into the reality of our lives creating a complex mutuality (Lemish, 2015). Above all, our identity is in question. On the web, I can create my identity anew, “be who I truly am,” present a completely false identity, or use multiple identities, switching and changing them. Blurring of the boundaries between different realities and its influence on personal identity strengthens with the absolute blurring in the media between inner, private space and public space. On the web, the shift between spaces is immediate and boundary crossing is continuous (Lemish, 2015).

Dear reader, do the following experiment and ask yourself, did you really choose to answer every WhatsApp notification, every text message the moment it arrived? Did you want to call and have the last conversation? Did you really consciously choose to spend the last hour looking at and updating your Facebook page and what gave you this hour? Are you the one who wanted to sit in front of the computer screen and surf these past few hours? Are you the one, dear reader, who wanted to watch television for the last two hours? The power behind screen technology is immense, the efficiency amazing, the possibilities nearly limitless, the dazzle and the shine attract us with a nearly magical might. We easily find ourselves submissive servants to devices that originally were supposed to serve us. With great speed we became addicted to the screen instead of controlling it for our needs. We need every

bit of our inner strength to withstand the seduction, to remain human, to act from within. The big test. A question of inner strength. We will return to this point later.

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We shape our tools, and thereafter our tools shape us

(Marshall McLuhan)

The question of the child versus the machine

Up to this point, we have not yet dealt with children. When children are before our eyes, this complex reality sharpens. Naturally and nearly without question, we apply our approach as adults in a technological world that is readily available, useful, and enjoyable, to and with our children. We expose them from a very young age to technological means, simply because those means exist. Technological reality is passed onto children of every age as an inevitable part of the culture surrounding us. Our children are exposed for hours to screens: television, computer, tablet, and smartphone, electronic games, electronic toys, and technological aids. These have become their natural and given environs. Often the screen is the central “figure of adult connection” for a girl or boy. The digital screen culture, without a doubt, has changed daily life (see Comstock & Scharrer, 2007; Rideout & Hamel, 2006). Can it be that it has no influence on our children? If so, what is the nature of that influence? A number of researchers in the field bring evidence to the fact that screen culture has tremendous influence, which is not necessarily positive (Lillard, 2011; Moessle et al., 2010; Pagani et al., 2010; Sisson et al., 2011; Swing et al., 2010; Thompson, 2005; Wethington et al., 2013).

In everyday culture, as well as in research, it is common to adopt the “objective” (and comfortable) approach: screen culture is neither good nor bad, it is simply there, similar to any other instrument or means; one must simply use it appropriately and wisely and all will be just fine. In my opinion, this approach ignores the principal question: is this technological reality effective for our children’s development? At least for young children, in my

evaluation, the detriments of screen culture to their development outweigh its benefits. This conclusion stems from its very existence, from its nature. I will explain.

Unrelated to the content displayed on the screen (which movie, program, game, or communication application), screen technology has an influence, a quality, or, in other words, it has a goal. If we remind ourselves of the well-known quote of McLuhan, “The media is the message,” it does, indeed, have a message (McLuhan, 1966). This message is very simple, yet incredibly powerful. If we were to phrase the idea a bit visually, I would say it this way: “Open your eyes my child, sit and rest, lay down, calm down, don’t do a thing, why make an effort, why sweat and get dirty, why play, why run around, stare at me and see all the goodness of the world in front of you. I will enchant you with the wonders of the world, with the most beautiful things, the most sparkling sights. Just give me the chance to do this for you. Press the button and I will already be serving you, I will act, I will exert, I will play, I will teach. You only have to receive, to internalize, to ingest, to be impressed. Effortlessly, without challenge, without activity. And most of all, I promise you total enjoyment, unrestrained, never-ending, eternal enjoyment.”

The thought that screen technology is neutral, that it is only “a device” and therefore we can operate it appropriately and educationally, or inappropriately and not educationally; to see it as lacking impartiality – stems, in my view, from naiveté or from ignorance or from a combination of the two. In this view, there is no “educational television.” There is a device that has intentions, a goal, and a daily schedule.

As stated, as long as we are speaking about adults, we assume that every adult is mature, responsible, autonomous, and capable of making all life decisions, large and small. As such, all adults are capable of controlling screen media; such media does not necessarily have to control them. However, as we noted in the introduction, this is no simple matter. Adults, too, have great difficulty controlling screen media and tend to be controlled by it. It is

necessary, as we have seen, to amass our inner strength and to connect to the center of our being in order to deal with screen culture and maintain our identity. In other words, we must be the adult inside the adult who we are.

When we are dealing with children, especially with young children, the issue is much more complicated. In their first years of life, children are at the age when their independent personhood is just being formulated and developing. For the majority of children at this stage, the “adult within” is still unknown; it is not simple to act from that place. The responsible place, the wise, that controls and guides – the center of their being – is still being created. In this regard, there is a tremendous difference between a four-year-old child and a forty-year-old adult. This difference cannot be ignored in a discussion on technology. The corporeality, soul, and powers of recognition with which a four-year-old child is endowed are still flexible, open, soft, and given to change and shaping at a much higher degree than his forty-year-old father. This fashioning and development occur in large part due to the touch and connection with the things the child meets. A young child’s activity and idleness, her games, the qualities she meets, the people with whom she connects, as with surrounding technology, all shape her, up to the most delicate intricacies of the brain and its cellular connections. The child who spends hours in a space of human connection, who plays, who operates, who listens to stories, who goes on hikes, will be formed in an entirely different way than the child who sits for hours in front of screens (Healy, 2004; Shonkoff, 2000).

I am claiming that in placing our children in front of the screen we deny them the opportunity to be active. They are educated to passivity. Why? Because development at a young age, especially during the first two years, but essentially up to age five or six or even older, occurs first and foremost and primarily from doing, action, and movement. We are unable to stand and walk without repetitive exercise of standing and walking, we cannot speak without intensive repetition and practice of the language that we hear. Every child’s

developmental achievement, in every sphere, is accomplished by and draws upon the powers of doing and movement. In a sphere in which we do nothing, we will not develop. Research of the brain in recent years has demonstrated a positive connection between its development and activities a child does and to which she is exposed. The opposite was also found; dystrophy of brain centers is related to lack of doing and lack of action (Healy, 2004; Louv, 2008; Shonkoff, 2000).

The screen takes on the activity, the doing, the movement, and the creativity and does so, of course, excellently. Hence, the more developed, advanced, and sophisticated the screen content, the less the child does. When a three-year-old girl listens to a story, she imagines an entire world and is in a state of tremendous inner activity. The pictures of the story live in her soul and her imagination, and they raise feelings, emotions, and desires, touching various physical senses as well. Her inner world is enriched; it is fashioned and develops and, primarily, grows as a result of the activity and doing. When the same girl watches the same story on a screen, she is not required to act at all. The screen does everything for her, imagines for her, and conjures up pictures for her. Her inner activity is reduced and her outer activity is brought to a minimum.

In this way, when she views screens again and again, she practices and is molded to be a consumer of content acquired without activity or effort. This is a deep “educational” process. It “educates” the child to sit passively and expect that from outside of myself come the content, deeds, and the things that I love. Add to this process the fact that the same girl is of the age at which she is being shaped, acquiring habits, and learning in the deepest way how to fashion her relationship to the world. From here it is clear that when we expose our children to screen culture in an unsupervised way, without thinking, we endanger in action and in deed their potential development for internal activity, for a strong inner center, and for creativity.

Of course, everything said above, is not my original thinking. Doctors, psychologists, and researchers of various fields in child development think and speak in the same spirit. The American Academy of Pediatrics, American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education made the following recommendations in reports issued in 2011 and 2012:³

- Early childhood frameworks, up to the age of two, should refrain from all use of screen media (television, DVD, video, and computer).
- For children aged two and up in early childhood educational frameworks, media time should be limited to one half hour per week and then only for educational purposes.
- Refrain from watching any form of media during mealtime.
- Parents should be informed of all media use in early childhood frameworks.

The question of media and child development

Let us return for a moment to what was stated in the introduction. There is no doubt that screen culture is positive, advances and brings under its wings amazing opportunities to the human race; yet, the magic and the wonders of screen technology also raise tremendous challenges. Here are some of them:

Possessing a personality with a strong, stable center that can resist the tremendous seduction concealed within screen culture while making educated and effective use of that culture.

Having a personality strong enough to rule technology and not become a servant of it.

Possessing a personality with developed social abilities that can cultivate social connections, conversation, and communication, despite the isolation and disengagement forced upon one

³ American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education (2011). Caring for our children: National health and safety performance standards; Guidelines for early care and education programs (3rd ed.). Elk Grove, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association.

by the screen. A personality for which the virtual connections created by screen culture do not replace human connections filled with warmth and touch.

Possessing a personality with creative abilities that can modify the rules of the game in every field, to see and to create the new, to cultivate originality in the face of the paved and permanent pathways onto which screen culture guides us time and again. (A personality that can create an application and not only use one.)

Possessing a personality with the ability to learn, with inner flexibility and adaptability to change, in an age when technology revises the rules of the game at tremendous speed and in which one must adapt to a new reality in nearly every field and interest area.

These challenges, in my opinion, must be the principle concern of the education system today. These are the characteristics that we must strengthen and foster among our children if we want them to be able to cope as adults in a technological, complex, and unpredictable world. How can we cultivate qualities of a strong inner center and stability, creativity, ability to learn, flexibility, and good social abilities?

It seems that from a developmental standpoint the answer to that question is clear. At every age, particularly at the youngest ages, these qualities develop during activity – external and internal – doing and movement with other children and with significant adults. A strong and stable personality, resilient and centered, is a possibility for every girl and boy. This personality will be given expression, develop, and flourish if we provide the right conditions. The same is true for creativity, inner flexibility, the ability to learn, and social skills. These will flourish and grow if we give children opportunities for expression, space for activity, for initiative, for free play, to use imagination. The amount of activity in play, in movement, in using the body and soul will find expression at older ages, in exactly these characteristics for which we are searching. Play and imagination, said Piaget, are a most serious business.

However, the operation of screens and electronic media has exactly the opposite effect on a child's development. By nature, regardless of the content, it silences, depresses and atrophies the inner center, creativity, ability to create social connections, ability to learn, and inner flexibility. As I attempted to demonstrate above, these are precisely the qualities that are denied expression in front of the screen, because the screen does everything, leaving us in the role of passive consumer.

In light of what has been stated above, it is clearly upon us to differentiate between the world of children and the world of adults. I know that such differentiation is not accepted, second does not sound good, and third is very difficult to apply. In spite of this, I do not see any other way. Children need to experience senses, activity, doing, and creating that are impossible to access and experience if we simply expose them to the same electronic media and screens we ingest. We need to think of the issue similarly to nutrition, clothing or to wandering about freely in the streets of a tumultuous city. We try to give our children, at least up to a certain age, positive experiences that are both harmonious and constructive, and to protect them from difficult experiences that are destabilizing and dangerous. To most of us, it is clear that not everything that we can and want to eat or wear is appropriate for a small child of two. Neither will we allow her to wander freely in every surrounding. In other words, we protect our child with a certain shield, a sort of greenhouse that is age appropriate in many areas of life. Why should we not do the same with regard to screen culture?

Again, I realize that this idea sounds naïve and that we are up against the tremendous economic power of the computer industry, television, telephones, and publicity and marketing. Notwithstanding, we must, in my opinion, urge parents: Please dear parents, protect your children as long as you can from screen technology, television, computer games, smartphones, and the other screens. If you desire them to be strong, with strong personalities, creative, flexible, learned, and capable – distance them from screens and let them experience

their world directly. Let them play, to sense themselves, to be in nature, to run, jump, and travel, speak with them, tell them stories, be with them without devices and other distractions. Give them a number of years when they can experience the world in the most sensory way, the strongest way, and the most natural way. In doing so, you will also prepare them most effectively for coping and working with these very devices.

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I certainly could supply more computers and technological equipment to schools than any other person on the face of this earth. But I came to the conclusion that the problem is not one that technology can solve. The problem of education cannot be resolved by technology and no amount of technology can bring about change.
(Steve Jobs, 1996)⁴

The question of the media in educational frameworks

The conclusion with regard to the educational system, particularly for kindergarten and elementary school children is evident: we must create media free spaces. We must, as educators, kindergarten and elementary school teachers, as advisors, and as principals, create what the majority of families, out of ignorance or simply from lack of ability, are unable to create: the appropriate educational atmosphere for young children, an atmosphere that will enable them to be who they are, to know themselves, to experience themselves. We must, as educators, particularly with regard to screen culture, make that same separation between the world of young children and the world of adults that is so necessary in our time. To that end, it is necessary to create, bravely, media free spaces.

It is crucial to note that the educational system is operating in exactly the opposite fashion. The ongoing crisis in public education and the consensus that we are not succeeding in nurturing our children fittingly, nor are they registering notable outward achievements, drives the system's leaders to search for miracle solutions. "Educational" technology is the

⁴ Steve Jobs, Weir Magazine, February 1996.

perfect miracle solution. In Greek drama they coined it *deus ex machina* – a god emerges from above or below the stage and solves all the heroes’ problems in one fell swoop. Postman called this “the technological god.” Educational annals of the last century are filled with miracle solutions such as these. Radio in the first decades of the twentieth century, “educational” or “learning” television in its aftermath, computerized curricula, online learning – all were supposed to save the educational system and bring about, finally, the hoped for results. Computers and tablets for every teacher and student, smart boards, PowerPoint presentations, distance learning, and sophisticated computer laboratories would do what flesh and blood human beings (teachers) were incapable of doing and would save the system from crashing. At the end of the day, it is simpler to invest budgets in smart technologies than in people. It is simple, you see the investment, it is sparkling and new and, of course, you have the support of the people who really set priorities: economists and large corporations.

The illusion concealed in the introduction of technology into education systems is so great and so compelling that it is impervious to thousands of studies proving that, at the very least, technology does not do any damage and, at its worst, it prevents in-depth and quality learning.⁵ Technology is also resistant to other investments that are so critical in our education systems (such as salary increases for teachers) and to the intuition of educators who, in the end, have come to work with children, not to be technicians in the world of technology. Salomon, who for years researched the field of technological applications in education systems, expressed his ambivalent position to this field in the following words:

I fear the commercial adaption of pedagogy to the possibilities created by technology.

I fear, for example, the enthusiasts of virtual teaching who ignore, in their excitement, human limitations and tendencies; I fear the various admirers of technological

⁵ See, for example, Salomon, 2002. Salomon uses the expression “technology chatters in the body of education” and shows the tremendous difficulty of intelligent application of technology in the educational system and how the vast majority of attempts fail entirely. Salomon also shows the possibilities within technology – if it is used appropriately and intelligently.

development, who believe that everything that is possible is also desirable. And I fear pedagogy guided in whole by what Microsoft and Intel propose for us. Education, in my view, is too important to hand over to techno-centrists to design (Salomon, 2002).

The conversation surrounding educational technology (a paradoxical term in and of itself) sheds light on the subject from a different angle. Technology comes, first and foremost, to serve instructional and learning processes. It supposedly gives teachers and students tools that are more modern and sophisticated for internalizing information and achieving results. One never hears in the framework of this discussion the words “education,” “values,” “ethics,” or “personal example.” Technology in the service of the education system differentiates clearly between learning and education. These are two entirely different terms. We have here a quasi-return to the learning machines of Skinner, stemming from the similarity of their ideological-educational approach. Students need to learn as efficiently as possible and machines will do that for us; everything that we put under the label “education” teachers will do at other times, perhaps during educational lessons.

Yet every educator knows that this separation is completely artificial. Everything that occurs or does not occur between adults and children, especially in kindergarten and elementary school frameworks, is both learning and education. Children are not articles on industrial production lines and knowledge is not simply another commodity. Everything that a ten-year-old girl experiences over the course of a day of learning is an interweaving of learning and educational processes. Given this understanding, every lesson, in any field, and at any age can be an educational, developmental, enriching and human experience or can be an un-educational, oppressing, withering and impeding experience.

The idea that children will be exposed to smart technologies, learn from the best teachers online, will work with computer programs with amazing teaching abilities, and will also be able to develop their human abilities, and that it is possible to integrate the two, is at

best naïve and, less favorably, an opportunity for economic gain by a third party. People learn, first and foremost, from people. Children learn and are educated first and principally from one another and from the personal example of adults who take it upon themselves to be role models. When we introduce technological aids at a young age, we consistently limit and prevent human touch, human warmth, and the wonderful ability of children to draw out strengths and knowledge from people who understand that this is precisely their calling.

The question of preparation for reality

Despite that I have already done so, in conclusion I desire, nonetheless, to relate to another justification that arises from the question of technology in education, and that is the question of preparing children for working in the technological world. In its essence: we live in a technological world, every work field is saturated with media and computers, there is no possibility to work and advance in professional fields without understanding technology and the ability to deal with it professionally – meaning that it is upon us to prepare our children for this reality. To this end, it is clear that children must learn technology, work with it, play with it, and experience it at a very young age. Is this true? Must preparation for something be in the very field itself? Can experiencing the world of technology at a young age really prepare a child to cope independently, freely, and creatively in the field? I am doubtful.

As I attempted to demonstrate, the encounter between a person and technology is complex and demands first and foremost human capabilities. The technology we use in daily life, from kitchen appliances to cars to computer programs and smartphones, is programmed to be user friendly and simple to operate. That is one of the characteristics of screen technology, it is accessible to all, simple to implement, and personally tailored. In other words, it does not require too much effort or training to operate. The challenges before us are not how to operate the technological systems in our environment, rather how to remain

human, creative, and in control over our contact with them. Even children who never came in contact with a computer or smartphone until adolescence can operate one with no problem after an extremely short practice session. The challenges lie in an entirely different place, in a person's soul. These, as stated, are human challenges.

There is no doubt that technical skill with a computer, smartphone, navigational program, or multi-channel television can only be acquired through actual use of these devices. However, as I attempted to show, this skill is of secondary importance, particularly in our day. In contrast, a large question arises with regard to fostering human capabilities. These capabilities can only be fostered by people, flesh and blood people.

In the end, we have no idea how the world will look (especially the technological world) when the children currently in kindergarten and elementary school will graduate from high school. The dizzying development of technological means prevents any possibility of preparing children toward something. Putting young children before technological aids, screens, and instructional programs with the goal of preparing them for something in the future is absurd. These devices will be entirely different when the children finish school. From its very nature, every technology is the end of a development, a means directed to achieve something, a purposeful device. Tomorrow's technology will be invented by creative, open, inspiring people, not by people educated by devices that are closed, directed, and purposeful. The technological world is actually the worst preparation for advancing itself forward. With this understanding I reach the following conclusion: education and training for the technological world is education without technology at young ages.

Even without what children absorb in kindergarten and at school, the majority in our culture are exposed to screens for long hours. In kindergarten and elementary school we must create a contra-culture, an educational and human atmosphere as much as possible. To this end, it is necessary to create a media free environment.

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