BEING: BODY, EMOTIONS, TECHNOLOGY

ESSERE: CORPO, EMOZIONI, TECNOLOGIA

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Abstract

The recent and ongoing sanitary emergency has brought drastic changes that have involved people all over the world in various ways. On the educational side, there has been a considerable increase in the presence of technology within the learning processes and environments, either real or virtual ones. The latter type has seen a blooming of different offers, new situations, and related issues and opportunities. The interaction between humans and technology has been ongoing, and even more ubiquitous in recent years. To keep it balanced and deploy its full potential for human development and well-being, as individuals and members of society, the human being, with a body, emotions, and interactions with the environment, must be the focus of the reflection by experts in all areas. If we consider these aspects, technology can have a positive impact on education. In doing so, we could avoid unfavourable consequences of improper use, and reap the benefits of a fruitful interaction, either in the family, at school and in the new technology-rich learning environments.

La recente, e perdurante, emergenza sanitaria ha portato forti cambiamenti che hanno coinvolto le persone in tutto il mondo in vari modi; dal punto di vista educativo c'è stato un enorme aumento della presenza della tecnologia all'interno dei processi e degli ambienti di apprendimento, reali o virtuali. Quest'ultimo tipo ha visto fiorire diverse offerte, nuove situazioni, problematiche e opportunità correlate. L'interazione tra uomo e tecnologia è stata continua e negli ultimi anni ancora più onnipresente; per mantenerla in equilibrio e dispiegare il suo pieno potenziale per lo sviluppo e il benessere umano, come individui e membri della società, l'essere umano, con un corpo, emozioni e interazioni con l'ambiente, deve essere al centro della riflessione degli esperti in tutti i campi. Per quanto riguarda l'istruzione, la tecnologia può impattarla positivamente, se prendiamo in considerazione la suddetta riflessione; così facendo, potremmo evitare conseguenze negative di un uso improprio e raccogliere i benefici di un'interazione fruttuosa, sia in famiglia, a scuola e nei nuovi ambienti di apprendimento ricchi di tecnologia.

Keywords

Emergency, Emotions, Learning, Technology

Emergenza, Emozioni, Apprendimento, Tecnologia

1. Introduction

The health emergency that we have experienced, and that we are experiencing, has become part of our daily lives, destabilizing everything and everyone, forcing us to take on entirely new situations, behaviours, experiences. It has impacted so strongly that it is devastating on a health, economic and human level. Unfortunately, this is not the first time humanity has faced and managed catastrophic situations (wars, earthquakes, etc.) which leave an indelible mark on the whole population from all points of view: in the body, the mind, and in the environment.

These are three components that feel, exist in symbiosis, and for this cause one affects the other and vice versa in potential and limits, supporting itself or giving in according to the experience of each. The affective, emotional component gives strength or not to the state of being in that particular situation with attitudes and positive or negative moods, depending on the personality style that influences the cognitive and relational sphere by experiencing oneself, others, and the environment accordingly.

If this situation gains strength for adults, in developmental age it stands out even further, also with problematic behaviours. In the family, at school and in extra school time for children, but also adolescents, we must take action to channel in the best possible ways the situations of fragility, discomfort, and difficulty.

These unfavourable experiences become worse in emergencies, and often the family must also be helped, not only economically, to cope with educational poverty. "Educational poverty indicates the impossibility for minors to learn, experiment, develop and let skills, talents, and aspirations thrive freely. In our country, educational poverty deprives millions of children of the right to grow up and follow their dreams" (Save the Children Italia Onlus, 2019).

That also contaminates the school environment, which must then take care of the pupils and, as far as possible, of their families. In doing so, it must also direct towards bureaucratic solutions; helping to put in contact the families, at an institutional level, with other figures who, through careful teamwork, can determine a positive change.

At the educational and training level, it is fundamental to activate solutions to remove the learning difficulties that in the present experience have seen teachers come to terms with distance learning (DL) which has become disruptive in everyday life. Teachers have not always been prepared for that unforeseeable change, thus becoming students themselves, to deal with technology and its use. That is both from an organizational point of view (materials and their use), and in establishing new rules of behaviour and interaction.

That is a mandatory challenge for many teachers because that important ongoing formation, which brings us closer to our students, had been postponed and, thus sometimes we had to improvise, with all the related issues.

2. Technology use, abuse, and its impact on the developmental age and families

We live in a world where the presence of technology is ubiquitous, and we could say that it has become an inseparable aspect of our lives. People around the world are always connected, day and night, and it's not easy to find even a tiny corner where technology doesn't get its share of our time, and energies. Almost all humans are becoming more and more consumers of a widening range of technological instruments.

Said that then, it would be significant to look at how people relate to technology. A thorough reflection on such a relationship between humans and that peculiar product of their ingenious minds that is called technology seems to be even more urgent nowadays, especially after the recent sanitary events on a world-scale basis.

The ongoing COVID-19 emergency has forced many people to redefine their lives in a way which would not even be foreseeable through all the same advanced technological means available today. This product of humanity has become immensely pervasive. Somehow, it seems that

the relationship has reversed. Technology, instead of being of use to humans, has almost become the user. The damages related to an erroneous usage of technology have become a widely debated issue; it seems that people are getting lost within technology. The situation looks so alarming that research by Montag and Walla (2016) supports that human minds progressively become atrophied especially in what concerns their social abilities.

That is something paradoxical. The more people think to be "connected" with each other, especially when using the ample array of social media immediately available to everyone in every corner of the planet, the more instead they become isolated, and this brings further and unpleasant consequences. Moreover, the researchers argue that all this carries with it a decrease of some specific social abilities "such as reading expressions in someone's face and listening to varying affective speech melody while being actively engaged in direct communication… As mentioned above, we gradually might be about to lose those capacities and thus also lose the ability to comprehend and even detect emotions, our own and somebody else's. Genuine emotion recognition depends on all those reads, while smilies and smugglies (or other emoticons) are no better than a "nice try" as alternatives to true emotions." (Montag & Walla, 2016, p. 6).

These remarks highlight a trend which might threaten some inherent characteristics of human nature such as the ability to deal with emotions, to feel them and to inhabit the body, the flesh and blood that allow for the expression and communication of emotions themselves.

2.1 Parents, not only daughters and sons, trapped in virtual realms

Among those on whom technology has a considerable appeal, school-aged children are one of the more heavily affected part of the world population. There is a growing concern about the effects of technology abuse, and those voices are not limited to Europe or the Western countries but encompass the whole world. The age range for technology misuse is widening, and that is becoming a worrying reality. That trend has prompted Middle Eastern researchers to investigate children (not only college students) on the consequences of internet addiction, and how that is related to anxiety and depression, and this has highlighted the need to take action (Malak et al., 2017).

If we move further east, Internet addiction is analyzed to determine predictors of this "pathology" and the importance of improving the awareness of such a topic by parents, and all those involved in the educational processes, to implement preventing and intervening activities (Lan & Lee, 2013).

A new condition has emerged as a result of the misuse of technology, and the term Internet Addiction Disorder (IAD) has become a relevant subject of studies. The topic seems to be so urgent that there is "... a clear need to define diagnostic criteria for characterizing this new behavioural addiction as a psychopathological entity; indeed, Internet Gambling Disorder is now included in the chapter "Conditions for further study" in DSM-5." (Munno et al., 2017, p. 4).

All those considerations seem to describe a rapidly evolving and somehow worsening situation. However, an emerging and widespread consciousness about the problem, and the high stakes involved is gaining strength; this could bring to crucial actions on this constantly more urgent matter. This alarming trend is the topic of a longitudinal study by Rehbein and Baier (2013), where the development of dangerous behaviours in adolescence seems to be rooted in a negative relationship with technology during pre-adolescence.

That further stresses the importance of taking consistent actions beginning in childhood; it would otherwise be even more complex to change certain behavioural patterns which have already taken roots.

Moreover, the relationship children and adolescents establish with technology, can have a massive impact on the development of deeply unhealthy habits that will weigh negatively on their health, on its physical, psychological, and social components. To prevent the onset of troubles in various areas, defining boundaries for the presence of technology use in children (and in

the developmental age) is suggested (Rosen et al., 2014).

Observing the situation from this perspective, it would seem that children are an easy target where technology abuse could wreak havoc and subsequently generate undesirable consequences for a person's general well-being.

It would nevertheless be advisable not to forget to mention that children live in various environments, especially their families, where other key figures for their growth processes are interacting continuously with technology. Their parents use many technological tools, and that usage contributes to shaping and impacting on their lives too. We would suggest that being a parent does not automatically imply to possess the ability to manage technology in "a balanced way", or that the competences to support and guide their children in the usage of technology are necessarily readily available.

The importance for what could be defined as a "parent education" and the involvement and ever-growing parental awareness on those matters, seems to be emerging, according to Stanley et al. (2017). That is, in our view, a decisive step towards the structuring of a body of competences, and education in technology for adults (not limited to parents only). This group of individuals should be the focus of attention because they have often found themselves within the recently fast-evolving technological world. Sometimes, the abilities to move confidently within that new realm (instead of being engulfed in it) might be scarce or even lacking.

Researchers are carefully considering that risky condition and the impact of technology in the relationship between parents and children. Some have even created a new expression to define that peculiar situation. McDaniel and Radesky (2018) term "technoference" as the interference that technology creates within the children-parents relationship. They suggest that misuse of technology by fathers and mothers can lead to relational problems with their children, and behavioural issues for the latter. This study acknowledges the benefits that technology has brought to peoples' lives, but highlights that it also plays an almost monopolizing role towards the parents' attention, and this leads to consequences for children, on their development and behaviour.

2. The coin also has another side

An analysis of technology that would like to be defined, as far as possible, objective, could not avoid considering also those aspects thanks to which technology has brought many improvements to a vast number of lives. It would be too easy to blame everything technology-related altogether and to neglect the positive aspects. The inherent potential of new technologies has been considered even years before the proliferation of an innumerable variety of innovations. That is even truer today, and especially for children; one aspect that has been taken into account by research, is that of the access to information technology (IT), that Martinez (1994) compared to the ability to read.

Nowadays, the problem of access in the so-called developed countries seems to be somehow solved; however, what concerns us is what people do after access to IT is granted. We could refrain our thinking as a matter of quality of access, and available competencies, for those who access IT. These would allow transforming all this potential into consistent actions, into opportunities for their personal growth, and thus for the improvement of society as a whole dynamic body.

Too many times access to IT, and the consequently established relationships, lack quality as the main characteristic. Users are mainly passive ones, and the approach to IT has mostly an entertaining purpose only, without any other end than spending time in itself. However, the deep reach and possibility of creating a personalised and fruitful interaction between children and technology were already evident when the Internet as we know it today was in its early days; in fact, Martinez (1994) writes: "With technology, a youngster can, in principle, be free to transform curiosity and ambition into understanding, achievement, and positive self-knowledge, in a

way that is not frustrated by the larger problems of society. Portability is a factor here. A student with a computer, properly equipped, can learn at any time, in any place, and at a pace that is tailored to the needs and interests of that student." (Martinez, 1994, p. 399).

These few lines above depict a scenario we can see daily; since portability has become the standard today, on our ubiquitous smartphones, we could do almost everything. Quality, in our opinion, is the key, and a qualitatively relevant interaction between humans and technology is fostered by education, through the structuring of competences thanks to which each person, and children, in particular, could be able to learn and deploy their full potential.

Technology offers a wide range of opportunities; however, there must be an approach characterised by a certain degree of awareness, and that is especially true for parents, teachers and every educational role. They must promote the realisation of a correct relationship between children and technology. In fact, "The protection of children digital era is significant and would be difficult to achieve without parental or instructor's guidance to promote positive impact of technology on their lives rather than negative one." (Huda et al., 2017, p. 704).

If that condition is verified, that is the competent presence of parents, teachers, and educators; this could turn technology into an immense opportunity to promote growth, learning and meaningful connection among children, to share their experiences and develop feelings of understanding and acceptance, openness and reciprocity. All those things that seem to be remote, especially now that, due to this sanitary emergency, we could feel further away from other people. Moreover, there could also be the suspension of some meaningful connections.

The importance of the supervision on children by parents, teachers or educators is paramount. Many countries have recently experienced online lessons from home, due to the COVID-19 emergency, and in recent years there has been a broadened Internet access offer in many areas, even remote ones. Technology by itself, however, is not enough to guarantee a positive outcome, and we agree that, as research supports, "Internet service, and technology more broadly, is put to more productive use in households with more effective parental monitoring of child behavior." (Vigdor et al., 2014, p. 1117).

Technology in general, and Internet access, especially for educational purposes can play a pivotal role (if used appropriately); research shows that it is not enough to access the Internet, and to have the technology available, to create a positive educational impact of any sort, and "Educational value is greater when the curriculum and Internet use at home align with the functions of education within the context of the digital age." (Daoud et al., 2020, p. 17)

This field of studies, due to the newness and rapidity of developments, certainly requires further research. That could shed light on the dynamics which contribute to the positive impact of technology on children, families, and various contexts, virtual or not, where education takes place.

3. Enlivening technology

The value of technology in education and its impact on children, parents, and the contexts in which families live, is considerable, and the same might be for the positive and negative potential within this new mankind-technology dynamics.

A pervasive idea about technology has often been that of a palliative, a surrogate, something characterised by the lack of vividness. When talking about it, some images relating to machines, iron, etc., all lifeless items, come to mind; we turn towards technology when we are looking for something that works, functions, and it is preferably efficient. The practical side becomes a priority; if we search for warm feelings, we tend to turn to other directions, or at least that is what used to be until recently.

The evolution of media, thanks to technological advancements, has opened the possibility for a substantial change in how technology and people interact. If we think about the computer, a huge step forward in making its usage easier, thus broadening the population of users, has

been the GUI (graphical user interface). Recently we have been moving (and everything is still in motion) towards an even more "human" technology, something alive, and that makes interacting with it almost (or the same as) doing it with another human.

We could say that technology has learned or better, humans have taught it how to feel; it now has emotions, as we humans do, or, more appropriately, it takes into account the emotional aspects involved in the interaction with humans. This is particularly true for learning; positive emotions can foster learning processes, either in the traditional contexts or in the online ones.

Research suggests that, in the various learning environments (virtual or real), it is fundamental to support "optimal levels of subjective control and value of learning tasks to promote enjoyment and curiosity and reduce anxiety. One way to achieve the former, as our data suggest, is by designing aesthetically appealing environments, and providing cognitive and metacognitive scaffolding to support the learning process." (Loderer et al., 2020, p. 12).

Emotions are therefore present even in learning processes that take place in virtual learning environments, and this topic is at the core of the planning and design of those contexts, especially nowadays when the implementation of TREs (Technology-rich learning environments) is increasing with a steady pace. In this sense, we can understand the growing interest of researchers for themes such as the interactions among emotions, learning, technology (Lajoie et al., 2020), and the centrality of structuring means to evaluate emotions in learning environments where technology plays a crucial part, and not only in traditional ones (Raccanello et al., 2014).

Within the widening variety and offer of technology-rich learning environments, it also emerges that there is a need for a deeper understanding of emotions and that they cannot be considered as something generalised and uniform for all learners; in this regard, Graesser (2020) suggests that: "The profile of emotions that learners experience have some commonalities but also predictable differences over tasks, goals, subject matter content, and populations of learners" (Graesser, 2020, p. 2).

Taking into consideration these individual differences; it becomes essential to place the learner at the core of the learning process and promote, even in virtual and technology-rich learning environments, a personalised learning experience that takes into account the intangible and tangible aspects of learning, that manifest themselves through the body and the emotions.

Conclusions

The global emergency we are all experiencing in different ways has had a considerable impact on many lives. A lot of things, which many people took for granted, have undergone dramatic changes; it is maybe too early to accurately determine the long-term effects of the recent and ongoing events. Nevertheless, we have witnessed, especially in areas such as the educational one, a massively increased presence of technology.

It is something that, at times, appears fluid, abstract, intangible, even detached from us humans; we must, however, remember that we created it, and we have bodies, tangible entities, with their needs and potential.

Technology can have a harmful, disruptive impact on our lives, it can wreak havoc on human relations, either in families, where emotional ties are even stronger or in any other context. Although those unfavourable effects, the positive ones have to be considered, and we have highlighted the potential technology has to promote learning and allow for useful and meaningful interactions. To enact the inherent positive potential that technology carries within, a thorough reflection on humans and their relationship with technology must continuously go along with its usage.

To keep this human artefact (i.e. technology) being useful, we have to include the body and its most natural expressions, the emotions, even in the new and rich technological environments. This way, it could be possible to save the human that is present within and thus foster a rich and meaningful communication among people. That is fundamentally important among

children (but it is also true for everyone, as all people have emotions) since positive emotions can foster learning and well-being.

It is time to reflect not only on new technologies that must be planned, produced, experimented, and presented in various contexts such as school, educational and other ones. It becomes predominant, instead, to consider, guide, educate on the use of these new instruments.

Currently, we have several technological tools, and these are often unknown even to those (teachers, educators, trainers) who should know them best. Technological illiteracy combined with the emotional one is a risk that we must not, and can not take; now more than ever. The lack of human connection with our users will be much more dangerous than the technical one.

A connection made up of bodies, emotions, gazes, all kinds of contacts that, even if virtually obligated, must always be there: finding new strategic solutions to pierce the screen and reach each and everyone without monotony, taking care and attention to the voice, calibrating pauses and changes of tone, paying attention to those gestures that are typical of us Italians that must be, however, more targeted for the communicative purpose.

The time has come to take on "an other" training that also involves the areas of communication, borrowing techniques from several professions, including artistic ones, to be more incisive: knowledge, together with how it is presented, explained and passed on. Being skilled not to interrupt the emotional, empathic, affective connection with our students or restore it as quickly as possible, is going to be the challenge to which everyone (family, school, extracurricular activities) will have to respond.

Technological innovations and a new didactics, to be significant for education, must be in a constant dialogue with tradition: nothing exists by itself.

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