

Roberta M. RĂDUCU\*

**Book review of *Demența digitală. Cum ne tulbură mintea noile tehnologii* [Digitale Demenz. Wie wir uns und unsere Kinder um den Verstand bringen] by Manfred Spitzer (translated into Romanian by Dana Verescu), Humanitas, 2020, 328 pages**

Every technological advancement that facilitates communication and the spread of information (motion pictures, radio, television, computers, smartphones and Internet) has been greeted by the public as the new way to improve diverse fields, including the educational system. Manfred Spitzer, neurosciences expert, specialized on studying the learning processes points out in the book *Digital Dementia* that a fashionable information and communication technological discovery is not necessarily compatible with educating the minds of the youngest. Drawing from current research in educational and media psychology and public health, Spitzer shows that “*computers do not help in shaping youngsters, but rather prevent or, in the best-case scenario, do not have any effect (...). Thus, the industry skillfully operates with this fear on vulnerable social layers, taking their last penny out of their pockets*” (p. 21).

Based on the huge widespread of the usage of technology among young children and on current research showing that brain work-out is important throughout lifetime to ensure proper functioning, Spitzer points out that we must understand better the consequences of early digital exposure. To uncover how the use of technology actually affects the healthy brain development of young children and making recommendations for a good development, the author structures the book in fourteen interconnected chapters, each addressing current issues and offering lush explanations sustained by scientific studies. The first two chapters explain how the brain works and what it needs for proper development in order to function at full capacity with processing and applying the stored information. The following two chapters argue that the use of Internet and computers in schools works as a hindrance for children’ brains. The next three chapters discuss the risks associated with using digital media and digital devices during toddler years. The subsequent five chapters discuss disorders that result from excessive and addictive consumption of digital media in early adolescence. The book ends with two chapters that discuss the unjustified public policies pushing technology in the educational process at a very young age.

The author warns that in later life the human brain is under constant threat of developing dementia, a disease that manifests as a mental decline. The human brain is described as a muscle that needs constant mental and physical practice for a healthy growing, since brain cells develop only upon use. Spitzer highlights the importance of proper methods of learning

\* National University of Political Studies and Public Administration, roberta.raducu@comunicare.ro

in the first years of life in order to improve synapse capacity to create connections. The learning process should continue throughout the lifetime of individual in order to enhance the synapses. The larger the synapses are, the more lagged the dementia becomes: *“Dementia is a mental decline. As any decline, it lasts more if it starts from a higher height. In turn, this height or the functional capacity of the mind depends, just as it happens for the muscles, on practice. Mental practice – learning – happens automatically, just as it happens with the muscles, with mental and physical effort”* (pp. 54-55).

Of major importance is understanding that the use of computers and the Internet for completing tasks in the first years of life blocks the brain workout to retrieve information and, in consequence, to link less synapses. As the author explains, computers copy brain functions and abet memory laziness. During childhood, the usage of Internet connected devices only produces a reduction on the control of where and when one stocks information. Using computers and tablets in schools opens the path to superficial information processing, to diversion from the learning process, and to secondary unwanted effects (e.g. a rise in infantile pornography, violence or various disorders). These effects negatively impact the individuals' quality of live and favor the onset of dementia.

Spitzer opens the discussion towards the risks associated with early age media usage by focusing on children's inability to socialize. Social competences are to be gained in face to face interaction in order for individuals to develop the cerebral capacity to behave in society. This process happens in the first years of life. Social media platforms satisfy the need to connect with people and are dangerous only for those who do not yet possess the ability to form connections in offline interactions. In this case, children who learn socializing online are exposed to great dangers, as the Internet serves as an extremely proper place for anonymity, users frequently falling into temptation to adopt a different identity and develop problematic behaviors online as lying, bullying, intimidating, robbing, aggressiveness or slander. Being a target to this type of behavior provokes a chain reaction, leading to the lack of self-control, loneliness and depression that in return destroy brain cells of children unequipped with experience with interhuman connections. Spitzer warns that in the long term these disorders favor the appearance of dementia.

Another risk pointed out by Spitzer comes from studies on pathological eating behaviors and sheds light on the direct connection between obesity and excessive and unattended consumption of media. TV programs for children increase the lack of physical effort and movement and, more importantly, are counterintuitive to their need for learning. Children under 10 years of age accumulate knowledge faster than adults do, as information is essential to survive. They memorize faster by doing and not by seeing. Children copy encountered behaviors by repeating actions; left alone in front of the television or on the Internet, they are undefended to what they see. For instance, Spitzer explains that food commercials for children are a direct input for child obesity.

The author advances the idea that how one nourishes the body reflects in the overall quality of live the individual, including his/her capacity of focusing and learning. Furthermore, the author argues that TV and social media is not rich enough in information for youngsters to process and to feed their brains with.

In the book, Spitzer address the problem of infantile violence and the myth of digital natives; he urges that parents be concerned about how young children and adolescents spend their time. The author warns that videogames might trigger behaviors inclined to real violence, desensitization to violence, social isolation and low level of education. With digital natives

and their habits for multitasking a new problem arises: their inability to self-control their mind to focus, which results in delays in completing multiple tasks at once. According to studies on attention disorders, media exposure determines slowness in resolving simple tasks by children, comparative with exposure to activities that imply physical movement. Apparently, media discourage self-control, understood as the capacity to operate with working memory, inhibition and flexibility.

Stress appears as a result of individuals' low level of control, which in the context of new media use usually manifest as individuals' incapacity to finish tasks in a given time or to self-regulate the time they spend in front of the screen. This stress determines insomnia, depression and addiction, the author argues further. Linked to these consequences are chronic fatigue, obesity, and diabetes, also connected to secondary effects of reduction in number of social contacts and social isolation, chronic heart diseases, abnormalities of the locomotor system, ever leading to dementia. Stress hormones affect the brain development and the author warns of the possible long-term consequences of this behavior, as there are not yet studies to show what are the exact problems this generation will face in later life.

*“Digital media represent a part of our culture. They enhance our productivity, ease our lives and constitute an important entertaining factor”* (p. 258) explains the author shading light on the fact that the book does not encourages the elimination of digital media from our lives. Instead, the author cautions about the unnecessary prioritization of the policy makers to introduce computers in every child's life. Spitzer stress out that the Internet is useful only for those who know what to search for and not for those who do not possess the contextual information. Children need basic education done traditionally in order for the information to settle down and to become comprehensive for their minds. Furthermore, Spitzer argues in favor of a healthy, active and social life, which includes living in the present and simplifying our lives. The author prompts that one should avoid social media and help children spend their time with activities that promote brain workout (listening to music, spending time in nature, interacting in face to face meetings) in order to shun obesity, dullness, aggressivity, isolation and depression that favors dementia.