FROM GENERATION Y TO GENERATION Z: THE RISE OF MOBILE NATIVES AND THEIR SOCIO-TECHNOLOGICAL IDENTITY

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ABSTRACT

Aim/Purpose	The purpose of this paper is to propose a new conceptual framework for defining Generation Z as *"mobile natives"*, highlighting early and embodied exposure to mobile technologies as the generation's core socio-technological characteristic.
Background	Existing generational models often struggle to distinguish Generation Z from Generation Y in meaningful ways. While both are described as "digital natives," the critical shift—according to our analysis—is not merely access to digital technology, but age of first contact, especially with mobile devices.
Methodology	This is a conceptual and theoretical study based on a synthesis of existing empirical research and statistical surveys from various countries, with particular attention to mobile phone adoption patterns in early childhood.
Contribution	We introduce the term *"mobile natives"* as a refinement of the broader and often vague "digital natives" category. The framework distinguishes Generation Z by their early, daily, and bodily-integrated interaction with mobile technologies—beginning in childhood, not adolescence.
Findings	The adoption of mobile phones among children surged significantly beginning with those born in 1995–1996.

	This early mobile immersion has shaped identity, communication habits, and parent-child relationships in ways unique to Generation Z.
	Global patterns (e.g., South Africa, India) show similar dynamics, suggesting the framework has international relevance.
Recommendations for Practitioners	Educators, media creators, and policy-makers should recognize that Generation Z's media practices are shaped by pre-adolescent mobile exposure. Approaches to engagement, education, and digital well-being must reflect this developmental trajectory.
Recommendations for Researchers	Scholars should adopt the age of first technological exposure as a key variable in generational studies and explore cultural differences in mobile adoption. Comparative studies across societies can deepen our understanding of how "mobile nativeness" manifests globally.
Impact on Society	Recognizing Generation Z as "mobile natives" reframes how we understand their socialization, media consumption, identity formation, and cognitive development. It also challenges assumptions about generational boundaries and digital behavior.
Future Research	Future work should empirically assess the psychological and developmental effects of early mobile exposure, explore how "mobile nativeness" operates in non-Western cultures and examine the long-term societal implications of mobile-centric childhoods.
Keywords	Generation Z, mobile natives, socio-technological identity, digital natives, technological generations, cellular childhood

THE DIVISION INTO 'GENERATIONS': DEFINITIONS AND BASIC ASSUMPTIONS

In the popular attempt to divide a given population into 'generations', a distinction must be made between a division on a biological basis and from a sociological-cultural perspective. Traditionally, it is customary to divide a person's life into 4 'life cycles' or 'life periods': Childhood, young adult, middle life and old age (childhood → young adult → middle life → Elderhood). Accordingly, a biological or demographic generation is defined from the birth of the mother to the birth of the first child, i.e., a life period of 20-25 years (Howe & Strauss, 2000). In recent years, significant technological and societal changes have demonstrated that generational transitions can occur more rapidly than traditionally expected (Ma et al., 2023). From a sociological-cultural perspective, however, the definition does not only refer to the biological-age aspect of this group. The reference to a generation is the product and creator of a culturally unique time period, i.e., the way in which a defined group of a 'biological generation' shares additional components: historical, social and cultural (Mannheim, 1952/1979). The formation of a generation results from the shared 'location in history', i.e., exposure to significant historical events ('period effect' - such as war, drastic changes in government and economic crises) and accelerated social and demographic changes (such as changes in family structure, waves of immigration) that are commonly experienced by members of the group during this life period (Buckingham, 2013).

Researchers emphasize that the experience of these events towards the end of the first period of life or at the beginning of the second period, i.e., as a teenager or young adult, to form a generational identity and consciousness, as at these stages the cultural, value-based and ideological world is more conducive to formation (Meredith & Schewe, 2002), some even define a specific age at which generational characteristics are formed, with the accepted range for many researchers being between the ages of 17 (or slightly earlier) and 23 (Cutler, 1977; Rogler, 2002; Schuman & Scott, 1989; Scott &

Zak, 1993). It is assumed that the worldviews and values that are formed in late adolescence and early adulthood accompany this age group and distinguish it from the other groups (Scott, 2000).

The central role of external events and their influence on the shaping of a generation means that, in contrast to the biological division, there is greater flexibility in defining the duration of each generation (McCrindle & Wolfinger, 2010), as well as flexibility in the transition point and the exchange of generations. In any case, frequent societal changes can lead to more rapid generational transitions than usual (Debevec et al., 2013; Marias, 1970; Rintala, 1968), for example due to rapid technological changes and processes that promote accelerated social leadership (McCrindle & Wolfinger, 2010). However, most researchers agree that this is a linear rather than categorical change, i.e., stable intergenerational changes that occur over time, rather than a sudden change at the end of a particular generation's time period (Twenge et al., 2010). In fact, some have defined the years of generations as sometimes overlapping (Bejtkovský, 2016), while other researchers claim that the transition between generations is sometimes sharp and distinct (Oblinger & Oblinger, 2005b).

The formation of a generation takes place on the basis of shared beliefs, worldviews, and characteristic behavioral practices as well as cultural preferences that distinguish one generation from another. The uniqueness of the generation in comparison to those that preceded it can be defined as a generation characterized by "social uniqueness due to the fact that the generation establishes itself as having a unique cultural identity" (Edmunds & Turner, 2002). In this sense, generations are indeed defined both historically and culturally. In fact, many of them have emphasized that the process of defining each generation is a cultural matter, also in the sense that the definition depends on how the potential members of that generation see themselves as part of a shared identity (Buckingham, 2013). Bourdieu (1993), who in principle accepts the concept that formation is the result of historical and economic situations into which a particular group is born, emphasizes that generational formation is also and above all about a struggle between generations for cultural and economic resources. A 'generation' is a socio-cultural product and definition, and therefore different generations have different cultural preferences, orientations, beliefs and tendencies. And the 'habitus' is differentiated. Some point out that generational formation and consciousness arise not only from self-definition, but also as part of defining the 'other generation' as different from me (Alanen, 2001).

Many studies have been concerned with trying to identify the 'perceptions', 'behaviors' and 'tendencies' that are common to members of a particular generation and different from earlier and later generations. For example, evidence has been found for the existence of 'generational memory' or, more precisely, "generational imprinting" (Schuman & Scott, 1989), meaning that the way in which memories of important political events and social changes are structured depends on membership of a particular generation. In this and subsequent studies, it was found that adults from different generations defined what they considered to be an important historical and social event differently depending on which event they experienced in the formative generational period (end of adolescence and beginning of adulthood). It was also found that attitudes towards these events and the way they were perceived were shaped during these years, which are a crucial period for the formation of personal long-term memory. Furthermore, the researchers found that even in populations where there is a difference between the memories perceived as more central within the same generation (e.g., women and blacks) compared to the majority group, the intergenerational division of these groups - was nevertheless preserved (Schuman & Scott, 1989). Other generational differences that have been examined when comparing generations in relation to the same age period have been found in relation to perceptions, attitudes and behaviors in a range of social issues such as around sexuality (Wells & Twenge, 2005) and values such as in relation to individualism and collectivism (Sirias et al., 2007). There are also intrapersonal differences in the perception and self-esteem of young people of different generations (Twenge & Campbell, 2001), in the degree of expression of characteristics such as narcissism, assertiveness and differences in mental health, which are reflected, among other things, in the extent of the occurrence of symptoms at a young age that indicate depression and difficulties with self-control (Twenge & Campbell, 2009).

Another area that has been examined in many studies from an intergenerational perspective is work and employment. For example, intergenerational differences have been found in perceptions of workplace values (Glass, 2007; Sessa et al., 2007), workplace motivation and behavior, work ethics, and the place that work occupies in the lives of the generations. Differences were also found in leadership traits and characteristics related to management and control in the workplace (Sessa et al., 2007). On the other hand, differences between the generations have been found in terms of conflict and the desired combination of work and private life, in feelings towards work pressure and the degree of satisfaction with work (Beutell & Wittig-Berman, 2008). In what follows, we move from this theoretical foundation to argue that Generation Z's identity is best understood through their early and pervasive use of mobile phones—a phenomenon we term "cellular childhood."

OUR ANALYTICAL APPROACH

This paper is based on a conceptual synthesis of previous empirical findings. Rather than collecting new data, we carefully reviewed existing statistical surveys and generational studies from United States, Israel and other western countries, emphasizing trends in early mobile phone adoption. Our method focuses on identifying consistent patterns across sources to define the generational boundary around 1995–1996 and to assess their socio-technological implications. While not experimental in nature, this grounded theoretical analysis enables us to present an original conceptual framework for understanding Generation Z.

WHO ARE YOU, GENERATION Z?

It seems that there is some agreement among researchers on some of the earlier generations in terms of defining the characteristics of the generation and the range of years to which it can be assigned. For example, the traditional division between the baby boomer generation and Generation X is accepted by most researchers. The agreement concerns both the identification of the time of transition between the generations and the definition of the social events to which the designers were exposed, particularly regarding technological changes. When embracing new technology, social influence plays a crucial role (Dendrinos & Spais, 2023). Thus, it is common to consider baby boomers as those born between the mid-1940s and early/mid-1960s and who grew up in an area of economic growth during their formative years. In a technological context, it is acceptable to refer to them as the first ball to grow into the new television space. In contrast, Generation X is usually defined as those born in the U.S. in the 1960s when the birthrate declined significantly. In the formative period of their young adulthood, they were exposed to a world in which traditional social, economic, familial and gender structures were in an advanced stage of dissolution. From a technological perspective, this is the first generation - albeit at a more mature age - to adopt the use of desktop computers and the internet, hence the nickname "digital immigrants".

Many aspects of the transition between Generation X and Generation Y are also undisputed. Most researchers define the late seventies or early eighties (1979-1981) as the necessary transition point between the generations. Generation Y, the "digital natives", are those who grew into the rapid acceleration of technological developments in the field of computers and games, the handling of virtual worlds (Prensky, 2001b) and the appearance of the first commercial Internet browser ("Mosaic Web Browser") in 1993 (Berners-Lee et al., 1999) from the mid-1990s, i.e., in the years that were decisive for the formation of the generation. The new generation, the "net generation", is characterized by its adept access to advanced communication technologies (Almog & Almog, 2016), and studies show that this generation also defines its unique characteristics in the subjective experience related to technology use and media content consumption characteristics, compared to previous generations who see their uniqueness in a high work ethic, adherence to conservative values and intellectual abilities (Pew Research Center, 2010). They value flexibility, efficiency, and innovation, which aligns with the capabilities offered by AI technologies. They are poised to leverage AI in various aspects of their lives, including career development, personal growth, and social engagement (Chan & Lee, 2023).

However, some scholars have questioned the assumption that members of Generation Y are naturally inclined toward effective use of digital or AI-based tools. They emphasize that being "digital natives" does not necessarily imply readiness, flexibility, or actual adoption. On the contrary, it may at times be accompanied by skepticism and critical attitudes toward the integration of AI technologies (for review see Lo et al., 2024).

Against this backdrop, the many discussions and disagreements about the transition between Generation Y and Generation Z are striking. It seems that despite the agreement on the existence of these two distinct generations, which differ from each other in several aspects, the nature and boundaries of this separation are still unclear and controversial. For example, when defining the transition between the generations, there is a very wide range of proposals for the delimitation of the years, from those who want to define the year 1990 as the beginning of the emergence of the new generation, to studies that include the transition up to a decade later and even further. It seems that this dispute stems from a more fundamental problem concerning the definition of the new generation. As mentioned earlier, most researchers who attempt to establish a defined transition point between Generation Y and Generation Z agree that there is indeed a generational shift, but they mostly do not give reasons for this transition and do not anchor it in a specific social or technological event. Their words are usually accompanied by general - sometimes vague - arguments relating to the continuation or acceleration of technological change experienced by the new generation (Hampton & Keys, 2016). For example, it is claimed that what characterizes Generation Z is their "intense engagement with the digital space" and that their main characteristic lies in the fact that "they have grown up with technology" (Ozkan & Solmaz, 2015a), therefore "they are expected to be very connected and have a lifestyle driven by technology" (Kapil & Roy, 2014).

The problem with these and similar definitions is clear. These descriptions not only apply to Generation Z but are completely identical to the description of Generation Y, who also grew up in a technology-saturated environment and for whom this is one of the main characteristics (Carlson, 2005, as cited in Berk, 2009). In general, despite the recognition of its existence, Generation Z still does not occupy a central place in the research literature, and studies that point to findings that distinguish this generation from previous generations also describe the unique characteristics of the generation in a vague and sometimes anecdotal way. It is not excluded that the reason for this is the lack of radical social and technological changes or historical events that are considered crucial and which can define this generation compared to the previous one (Ozkan & Solmaz, 2015b). Some even claim that the significant change is nothing more than the change of calendar with the transition to the new millennium, which has influenced this categorization (Markert, 2004; Seemiller & Grace, 2016).

With this in mind, we would like to make these three arguments: (a) propose a clear demarcation of years for Generation Z; (b) characterize this generation by calling them "cellular natives", a definition related to the rapid spread of the cell phone in these years; (c) make this classification based on data showing that the main characteristic of "cell phone natives" is the early age of exposure, i.e., the unprecedented exposure and adoption of the cell phone at a very early stage of their lives, already in childhood.

On this basis, we will discuss the significance of defining Generation Z as "cellular natives" against the background of studies dealing with "cellular childhood" and the dominant function of the cell phone in shaping the everyday space at this early age. We will briefly focus on the unique characteristics of the medium, on the potential of its presence in children's daily lives to influence and shape technological habits - and perhaps even familial and social ones - that differ from those of previous generations, presenting initial studies that identify differences between this generation and previous generations in relation to the cell phone and the characteristics of its use.

"CELLULAR NATIVES" - DEFINING THE GENERATION

In our view, the years 1995–1996 mark a critical turning point not merely because of generational succession, but because of a measurable shift in the technological landscape experienced during early

childhood. We propose defining Generation Z as the first cohort of "mobile natives," distinguished by their early, habitual interaction with mobile technology, in contrast to Generation Y, whose primary technological engagement began in adolescence or early adulthood. This temporal distinction is not only chronological but experiential, grounded in developmental psychology and media adoption patterns and usage. This claim will be further grounded in the technological transformations that took place during those formative years.

Between the years 2003 and 2005, there was a significant jump in cell phone ownership among adults in most Western countries (Heeks, 2010). Similar data was found in relation to teenagers. However, among young users of primary school age, it appears that the jump in cell phone ownership did not occur until a few years later, in the period between 2005 and 2009. Whereas in 2004 only around a third (36%) of children under 14 owned a cell phone, by 2009 this figure had risen to over two thirds (69%) and 31% among those under 10 (Rideout et al., 2010). In other words, there is no doubt that since 2005, the vast majority of children have owned a personal cell phone by primary school age. From a generational perspective, the increase in cell phone ownership during childhood gains significant momentum among those born in 1995 and later. This figure is even more striking when comparing the change in cell phone use to the extent of computer and Internet use among those born in those years, which has barely changed over those years (Rideout et al., 2010).

Another survey by the Pew Institute shows similar data: Of children born in 1995-1997, about 28% received their first cell phone at age 10 or earlier, compared to those born in 1992, for whom the percentage was close to zero (Lenhart, 2010). This 2009 survey also found that 66% of adolescents received their first cell phone before the age of 14, and the researchers noted that "the percentage was close to zero." Elsewhere, they point out that for those born in 1995 and later (Generation Z by our definition), the "tipping point of cell phone ownership" is not in adolescence, but earlier, in middle school and below, when the initial age for owning the device drops precipitously from then on (Pew Research Center, 2010). Another figure supporting this argument shows that in 2004, about 18% of 12-year-olds (born in 1992) owned a cell phone, while by 2008 (born in 1996 and later), more than half of children of that age owned a cell phone. In view of all this, there is no doubt that there has been a drastic change in the intensive use of cell phones in early childhood among those born from 1995 onwards.

While these data originate from the United States, they are generally applicable to most Western countries. As an additional example, in Israel, the age at which children begin using cell phones appears to be similar—if not younger—with an even higher penetration rate at that age. In 2009, a survey was conducted among young people aged 13-14 (born in 1995/6). It was found that 88% owned a cell phone, 60% of whom were aged 8-13 (Ben Naftali, 2009). -91% in the 12-14 age group (Bezeq, 2015; Globes, 2013; Ziv, 2013). A survey published in 2014 shows that 81% of children under the age of 12 own a cell phone (Shohat, 2014), and in the 12-14 age group this proportion rises to 94%. In a survey conducted in 2015, it was found that the average age for receiving a cell phone has dropped to 9 and a half years (Bezeq, 2015; additional data from Rosenberg, 2015); another survey conducted in the same year showed even higher data which 95% of teenagers have a phone. They received their first device before the age of 11 and 71% before the age of 9, with the vast majority owning a smartphone (Sarid Institute, 2015).

Furthermore, it appears that among Generation Z, those born in 1995 and later, the age of cell phone ownership and use extends into early childhood and even infancy. In 2011, about 38% of parents in the U.S. reported that their children ages 0-8 used a cell phone (their own or their parents') at least once, and 8% use it daily. In 2017, the numbers continue to rise: about 87% of children in this age group use it daily, with 28% of them using it daily (including 9% of all children under 2 age old). Another survey that looked at mobile device ownership among children found that 7% of children aged 8 owned a smartphone in 2017 and 3% of 4-year-olds.

We would like to emphasize that the significant technological shift we found among those born from 1995 onwards has actually occurred among children and not adults. In the years when the big jump in cell phone ownership is observed among children in middle and elementary school (from 2005 onwards), the cell phone has already reached a high level of saturation among adults, and the percentages of ownership of the device hardly change. According to a survey by the Central Bureau of Statistics in Israel, for example, 83% of adults already owned a cell phone in 2004. In 2005, the figure rose only marginally to 86%, and around a decade later, in 2014, penetration reached 96% - a very moderate increase of around one percent per year (Statistical Yearbook for Israel, 2014).

CELLULAR CHILDHOOD

As we have seen above, the consistent underlying assumption is that the formation of a technological generation is not just the result of the encounter of a new generation with a new technology but results from the stage of life in which this encounter takes place. This explains, for example, the division into 'immigrants' and 'natives': an encounter with a new technological environment that takes place at a late age, as opposed to an encounter that takes place in late adolescence or early adulthood. With this in mind, we would argue that the transition between Generation Y and Generation Z is not in fact related to the emergence of new technologies, and it is possible that this is also the reason for the ambiguity in this matter. The transition is due to the drastic change in the age at which one comes into contact with existing technology, which for several years was only used by older people.

Some have described members of Generation Y as having "spent their entire lives surrounded by the toys and tools of the technological generation" (Carlson, 2005, as cited in Berk, 2009, p. 9). We believe this description is inaccurate, as for many members of this generation, their intense engagement with new media did not begin in childhood. For some it was in late adolescence, for others of the same generation only in early adulthood (Geck, 2006). In fact, the previous technologies - the television and the desktop computer - were present in their lives from an early age, but the Internet and the cell phone, which researchers use to define Generation Y, were only introduced to most of them at a more advanced stage of their lives. On the other hand, this description of an "everyday life full of technology" from an early age is very accurate for Generation Z, especially when it comes to cell phones. After all, from 2005 onwards, the cell phone was assimilated not only by adults and adolescents, but also by pre-adolescent children and has become an integral part of daily life (Davie et al., 2004). Embracing new technologies and experimenting with new forms of communication are hallmarks of both the generations (Mude & Undale, 2023).

As mentioned above, the division into generations is traditionally based on the encounter of the members of the new generation with a radical change - historical, social or economic - at the very age that is considered crucial for shaping perceptions, attitudes and personal identity (for example, at the age of 18-23, according to many researchers). However, we believe that things are different when it comes to new media technologies and in particular the cell phone. We would argue that the encounter with the new medium shapes attitudes towards communication technologies and the technological space as a whole, even - and perhaps especially - if this encounter takes place intensively before the age range that has so far been discussed as a critical stage in the generational context. The reason why late adolescence and early adulthood have been designated to define the sociological generations lies in the fact that the shaping of the generational concept is determined by the encounter with political and social events. A significant awareness of these events usually develops only from late adolescence (Sigel & Hoskin, 1977) and is dependent on intellectual maturity (Inhelder & Piaget, 1958), the psychological development of personal identity (Erikson, 1968) and changes in social perception (White & Siegel, 1984). In contrast, children of kindergarten and primary school age are assumed to lack a rich political and social background and to have a superficial perception of the political sphere (Gallatin, 1980). In any case, these events to which they are exposed in childhood and early adolescence have no influence on the shaping of long-term perceptions and attitudes, nor on other generational characteristics such as shared political-historical memories (Schuman & Scott, 1989). In the technological context, however, this appears to be different. The processes of assimilation of

technology into the user's daily life and the way in which technology shapes media literacy, its meaning and its perception take place at a younger age. The childhood years in elementary school are crucial for the acquisition of developmental tasks such as the acquisition of basic social skills and the acquisition of language (Braungart, 1984; Havighurst, 1953). Both aspects are closely linked to the use and perception of communication technologies.

In addition to the clear connection between the new communication space and the social skills it requires, it is particularly important to view the acquisition of technological skills and media competence as learning a language. Against the background of this connection, Prensky (2001b) coined the metaphor of the 'natives' and the 'immigrants', as "mother tongue' and as "native speakers of the language of technology". Indeed, it can be assumed that the effects of rapid and intensive technological diffusion are particularly important for the acquisition of technological language in these early years. Thus, if the end of adolescence and the beginning of adulthood are considered "a critical period of learning about society as a whole" (Schuman & Scott, 1989), then childhood is crucial for learning, shaping perceptions and adopting behavioral practices in the technological space (Ribak, 2007). For this reason, previous researchers (Prensky et al., 2001b) criticize that the definition of 'digital natives' assumes the criticality of the encounter with technology in the specific age group of early and late adulthood. According to them, this concept ignores the importance of encounters with technology at other ages, which may be no less important, as "the striking differences found in the key stages of infancy, early childhood, childhood and adolescence are clear and important for discussing the issue of mobile natives" (Bennett et al., 2008).

In fact, the researchers emphasize that the age of children and its unique meanings play an important role in understanding the role that media plays in their lives. Children's intellectual, emotional, physical and behavioral position, as well as their accumulated experiences in media and concrete reality, are in constant interaction with the screen in all its forms (Lemish, 2007). This argument is relevant to new media in general and the cell phone in particular. The transition from the experience of using a computer and the stationary Internet to the experience of cellular communication - is not just a technical difference, but a radical change in the climate of communication. The unique characteristics of the cell phone, its mobility and physical proximity (Ito, 2005; Vries, 2005), make it an integral part of the user's daily life, giving them a constant connected experience and turning the user - on loan - into a mobile communication device. The constant presence of the cell phone on the human body is also expressed in physical sensations and a physical perception of the technological medium, to the point of uniting the consciousness of the device with the physical consent of the body (embodiment) and its experience as another physical-actual organ (Andrejevic, 2005; Richardson, 2007).

In this sense, if Generation Y is characterized by growing up in a communication-saturated environment (Carrier et al., 2009), then Generation Z grows up with the communication environment close to the body from an even younger age, accompanying them at every turn. And in Berk's formulation: if Generation Y is "born with a chip" (Berk, 2009), then the cellular natives of Generation Z are "born with a chip as part of their body" (perhaps more accurately described as: "born with a body chip"). The combination of the device's mobility features and its constant connection to the user's body forms the central experience in the new digital space: the user's experience of constant connection or 'hyperconnectivity' (Middleton, 2013; Oulasvirta et al., 2012). While the term "hyperconnectivity" captures the intensified media environment experienced by Generation Z, it also raises concerns. Studies have identified both empowering and potentially detrimental outcomes of early mobile exposure, including changes in attention span, emotional regulation, and interpersonal communication (Ophir et al., 2020). Our concept of "cellular childhood" is therefore not merely descriptive but also calls for critical reflection on the broader implications of early mobile immersion. The awareness of constant connection blurs the boundaries between existence in concrete reality and a defined physical space and between existence in mediated reality. Children have grown up in a world where it is no longer possible to clearly separate whether you are on or off at the touch of a button, but in a continuous daily experience of connection (Ribak, 2007).

This technological reality has consequences for all users, but also a unique significance for children. For example, one can point to the way in which the cell phone helps to reshape the relationship with parents at this age. Because of the physical dimensions and connectivity of the cell phone, they gave it the image of an umbilical cord that connects parents and children and encompasses the child's space of independence (Ling, 2004). The potential of constant connectivity embodied by the mobile device allows parents to control their children remotely, the presence of parents even during their physical absence, while promoting children's experience of freedom and independence (Ribak, 2006, 2009). This function gives the cell phone distinct characteristics of a "transitional object" in the sense described by psychologist Donald Winnicott (1965), namely as an object that expresses a potential space and symbolic connection in its mere presence and not necessarily in its functional use that enables the possibility of actual connection (Ling, 2004). This allows young people to experience early independence and separation while experiencing connection and presence (Ribak, 2006). In other words, the prevalence of the cell phone at this age copies and extends the transitional metaphor in the parent-child relationship from infancy (which Winnicott, 1965, talked about) to childhood and beyond. A similar direction can be found in the first description of Generation Z that researchers Howe and Strauss (2007) attempted to outline. Back in 2007, they wrote that the characteristics of the future adults of Generation Z, the ball of the "Homeland Generation", will be shaped by their childhood experiences due to the constant tracking and monitoring of their parents thanks to the cell phone, which creates a new type of relationship between the younger generation and their parents that is different from that of previous generations.

The controversial parenting rules created for the children of Millennials (Generation Y) will become commonplace. The children of the next generation will be tracked, supervised and monitored (by parents) using mobile digital technology (Howe & Strauss, 2007). The intensity of children's mediated relationship with their environment through the smartphone is not limited to parents but also exists in relation to other authority figures. Look, for example, at the WhatsApp groups shared by students and teachers, a phenomenon that is rapidly expanding to primary school age (Schouwstra, 2016). Communication between teachers and students on social networks, which first took place via Facebook and especially among high school students (partly due to the formal restriction in Israel on opening a Facebook profile at primary school age, which discouraged teachers from maintaining such relationships), also became very popular among primary school children with the transition to communication via mobile messaging apps such as WhatsApp. These groups, which function as learning, educational and social platforms, present teachers in the online social space of students and challenge the role, status and traditional authority of the teacher for children (Bouhnik & Deshen, 2014; Rosenberg & Asterhan, 2017).

At the same time as the potential of the relationship between parents and children, the cell phone also enables young people to have the opposite existential experience of emancipation, freedom and control. Adolescence in the age of the cell phone is characterized by young people being able to communicate constantly with their peers and being almost completely freed from the supervision and control of parents and teachers. In fact, studies show how the expansion of cell phone penetration to younger age groups establishes this life experience not only in adolescents (Ling, 2000), but also in preadolescent children (Davie et al., 2004).

On another level, the change brought about by the cell phone in the communication climate of children is also due to the convergence phenomenon of the smartphone, i.e. the process of convergence of different communication channels and functions in this device (Jenkins, 2006; Madianou, 2014; Wei, 2008). In this sense, the proliferation of cell phones among children is not the proliferation of a single, defined technology, but means access to a huge variety of channels and content on a personal and mobile device where parental control is much more limited compared to previous technologies such as the desktop computer. This reality has many potential consequences. For example, this may explain the increase in the amount of exposure to pornography among children and adolescents (Peter & Valkenburg, 2016), and it appears that the cell phone is a major factor in this trend. Previous

studies have found that one of the characteristics of targeted exposure to pornography among children and adolescents was the use of a computer at a friend's house, a figure that shows an attempt to overcome the accessibility issue associated with family computer use among those children (Wolak et al., 2007). With this in mind, it is possible to understand the findings of recent studies that paint a picture which in recent years the majority of children's exposure to pornography is through browsing on mobile devices and smartphones (Jones et al., 2012; Martellozzo et al., 2016; Wolak et al., 2007).

CELLULAR CHARACTERISTICS OF GENERATION Z

As mentioned above, previous studies have shown clear differences between Generation X and Generation Y in the use of new media technologies (Charness & Bosman, 1992; Lenhart et al., 2010). Age and gender have been found to influence smartphone usage (Belic et al., 2024), such as a tendency to develop addictive usage habits, which was more pronounced in the younger generation (Van Deursen et al., 2015). With regard to Generation Z, however, there is not yet a sufficiently large body of research to provide us with a complete picture. However, initial studies confirm the assumption that there is indeed a difference between this generation and previous generations in terms of the cell phone and the characteristics of its use (Ozkan & Solmaz, 2015b), although the nature of the difference, in their opinion, still needs to be investigated. In another study, it was found that Generation Y uses cell phones to search for cognitive-functional information, while Generation Z is more for social information. It was also found that Generation Z reported higher emotional satisfaction when searching for information using their smartphone (Zhitomirsky-Geffet & Blau, 2017). Of particular interest is the fact that no differences were found in Generation Z depending on personal differences or the duration of ownership of the cell phone, while in Generation Y and X personality differences, such as the degree of neuroticism or extroversion, as well as the duration of ownership of the device were influencing factors.

Further differences were found in relation to the potential for addiction and the development of addictive behavior patterns with the device (Zhitomirsky-Geffet & Blau, 2016). The researchers found clear generational differences, although these are not necessarily linear: Generation Y has a significantly higher tendency towards addictive behavior, both in relation to the older Generation X and in comparison, to the younger members of Generation Z. It was also found that certain practices, such as the intensive use of the WhatsApp application, can predict addictive behavior, but only in Generation Z, where the emotional gain from cell phone use was also significantly higher than in this other generations. The researchers offer an explanation for these findings, according to which it is the transition of Generation Y from a state of absence in childhood to a state of accessibility in adolescence or early adulthood that causes a tendency to overuse and develop addictive behavior patterns. This is comparable to the well-known phenomenon of eating disorders, where strict dieting can lead to over-eating and bulimia (Tuschl, 1990). In contrast, Generation Z, which grew up with cell phones and smartphones from an early age, has become accustomed to healthier psychological responses, and the early assimilation of technology as a natural part of daily life leads to a lower tendency to develop addictive behaviors. Generation X did not come into contact with cell phones until late adulthood, when their personality structure was more stable, leading to more functional use and a lack of addiction.

CONCLUSION: "THE MOBILE GENERATION"

Generation Z is a popular term in public discourse and to a large extent in academia, although it is difficult and unclear to define this generation, both in terms of the age in question and especially in terms of identifying the social changes that are helping to shape it. Previous researchers have already raised the possibility that the cell phone is one of the defining elements of the new generation but have expressed this only in passing and without foundation (Hampton & Keys, 2016; Zhitomirsky-Geffet & Blau, 2016), while others have used this term to describe the new media climate in general, rather than a defined population (Selwyn, 2003). In this article, we have sought to substantiate and extend this argument and locate the generational shift among those born in 1995 and later. We

believe that in the years separating Generation Y from Generation Z, there has indeed been a significant shift in the digital environment, linked to the rapid and unprecedented uptake of the cell phone (and later the smartphone) at a young age.

One of the popular nicknames for Generation Y is the "web generation", a moniker that stems from the definition of the generation as such, resulting from an intensive encounter with Internet technology (Oblinger & Oblinger, 2005a; Tapscott, 1998, 2008). The encounter with the Internet was the "defining event" of the generation (Debevec et al., 2013), because according to Berk (2009), this generation "did not know a world without computers and without the Internet." In the generation after them, it is correct to say this with a different validity in relation to the cell phone, since the first experience of using the cell phone is made from a very young age and lasts more intensely than any other electronic device (Hampton & Keys, 2016). In this sense, Generation Z is not just a "mobile generation" or "mobile mavens" (Ozkan & Solmaz, 2015b) and certainly not a "second generation of digital natives" (Palfrey & Gasser, 2008) as defined by previous researchers, but "mobile natives", true cellular natives. The unique characteristics of the new medium, which constantly accompanies young people from the first years of life, have the potential to influence and shape technological - and perhaps even familial and social - habits that differ from those of previous generations. Preliminary studies confirm this trend, but the scope and depth of the picture is not yet sufficient. Importantly, these studies show that one must be careful with intuitive arguments sometimes heard in public discourse, such as the formation of dependency relationships, addiction and problematic use of the digital generation compared to balanced patterns of previous generations, and it seems that the potential differences in the nature of the relationship with the new medium are also characterized by opposing trends.

BROADER CONTRIBUTION AND GLOBAL PERSPECTIVE

To strengthen the international relevance of this framework, future research should examine how early mobile adoption manifests across diverse cultural, economic, and technological contexts, with particular emphasis on comparative analysis—for instance, between Western societies and others. While our analysis focuses primarily on data from Western countries, including the United States, Europe, and Israel, research in South Africa (Beger & Sinha, 2012; Kreutzer, 2009) reveals a parallel emergence of mobile-native behaviors among youth in low-income communities, where mobile phones—not personal computers—are the dominant platform for digital connectivity. These youth engage in content production, communication, and information-seeking via mobile devices, illustrating how the concept of cellular childhood resonates even under conditions of infrastructural inequality. Similarly, a cohort study of young Indian consumers (Thangavel et al., 2021) found that Generation Z exhibits distinct digital orientations compared to Millennials, driven by mobile access and a deep integration of social desirability, convenience, and frugality into their online habits.

Taken together, these findings demonstrate that the unique relationship Generation Z has with mobile technologies—and the specific usage patterns that, we argue, stem from their status as 'mobile natives'—is not merely a Western or affluent phenomenon. Rather, it reflects a global pattern of early, embodied, and socially integrated mobile phone use that appears across vastly different socioeconomic and cultural contexts. As such, we argue that the definition of Generation Z as mobile natives offers not only a novel generational label but a socio-technological framework that is adaptable across global settings. It encourages comparative and context-sensitive approaches to generational identity and highlights the importance of mobile media in shaping cognitive, social, and cultural development in the 21st century.

By proposing a generational classification rooted in the age of first exposure to mobile technologies, we offer a distinct alternative to prevailing models. Our approach seeks to refine the theoretical tools used in generational research and underscores the need for culturally contextualized and developmentally grounded analysis of youth in the digital age

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