International Journal of Research in English Education (IJREE)

Original Article **Published online: 20 March 2019.**

The Digital Turn in Higher Education: A "Digital Natives" Mythbusting

Bani Koumachi [1]

* Correspondence:
Bbani.koumachi@uit.ac.ma
1. Department of English Studies, School of Arts and Humanities, Ibn Tofail University, Kénitra, Morocco

Received: 19 October 2018
Revision: 23 January 2019
Accepted: 13 February 2019
Published online: 20 March 2019

Abstract

Digital technology has recently become a ubiquitous feature of the modern era posing problems to higher education institutions. Digitization of the academic life has brought forth the claims that there is an evident disparity between the digital naturals and digital immigrants and that the myth of the former is "undemystifiable." The claim that the new digitized generation has its own distinguished learning preferences, skills of learning and beliefs about learning should make higher education authorities revisit their curricula and "reshuffle the academic cards" so that the digital immigrants could catch up with the fast-running pace of the digitized train and provide the digital natives with what they need for a successful academic life. The overall aim of the present work therefore is to investigate the extent to which the so-called digital natives really have control of the use of educational technology either as part of their self-directed learning practices or as part of formal tertiary teaching, the type of technologies they prefer to use, whether they possess the required digital skills that are important for their future careers, and how vital the digital skills are in boosting their employability. A questionnaire survey was used for doing the objectives of this study. 218 students participated in this study and completed the questionnaire. Then the data were collected and analyzed through frequency, percentage, mean, and standard deviation. The findings of the present study indicated that the media change under the created discourse of "moral panic" has unveiled the singularity of this generation and has forced academic authorities to reconsider learning, teaching as well as both skills and employability of such a generation for a better academic higher education system.

Keywords: digital turn, digital natives, higher education, technology, employability

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

1. Introduction

Media change is obviously permeating every sphere of life, from intimate relationships to commercial and academic encounters and settings. The change effected by the booming of these digital media leads to a digital turn in the way people perceive life and societal relationships, and higher education is no exception. Digital turn therefore is seen as a "process in which the structure of media in society is redefined" (Kergel & Heidkamp, Telléus, Rachwal, & Nowakowski, 2018, p. 15). The academe sphere is progressively impacted by this abrupt transformation leading to a digitalization that is bound to reform and transform the way knowledge clients learn. Scholarly research and teaching are not exempted too as professors and students at post-graduate studies feel the urge and the pressure of having to get adapted to the digitalization age by adapting their skills and strategies to what is digitally imposed.

A new and distinct wave of learners have entered and settled in our universities and everyone can easily figure out that they make of technology their everyday concern. The act of having a grip on technology and its uses differentiates them from the old generation to which their professors belong heralding therefore a necessity for an educational reform that would take into account the new skills and preferences. Promulgating such a call for reform has "resistants" from all spheres of the university starting from the ministry of higher education itself down to the professors.

Whether "Net Generation," or "millennial learners," (Tapscott, 1998 as cited in Thomas, 2011), "Digital Natives" have been the focus of studies in the academe and social media and have been looked at as a generation that "breathes" technology and acts and behaves in a way that is distinct from other generations. In fact, today's learners have not only metamorphosed in terms of behavior, look or talk, but also in discontinuously singling themselves out as dissimilar creatures. Almost practically, we can notice that this generation possesses nothing that bonds it to the previous generations and digital turn is held responsible.

It is a generation that is talented in technology and totally immersed in it that it compellingly claims itself to be the only generation that will exist and persist in the future. Their diverse skills and preferences of learning are going to be imposed. That is, their being experiential learners, collaborators, technology users, and gifted multi-taskers (Alam, 2014; Cope & Kalantzis, 2010; Khosrow-Pour, 2002; Prensky, 2001a; Thomas, 2012) makes of them a cohort of learners whose claims are obligatorily to be satisfied putting universities in such an embarrassing situation to get equipped to cater for their needs.

Not only is the academic community threatened by the "digitality" of the institution and the skills and preferences of the "digital natives", but also the teaching skills of its teaching staff. It seems that the old pedagogy contrasts with the new ingredients of heutagogy that this generation relies so much on making use of what web 3.0 applications offer. Prensky (2001a) stresses that the problem is really severe insofar as "our Digital Immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language" (p. 3).

1.1 Statement of the Problem

The Digital Immigrant/instructors are called so as they are born prior to 1980 and the majority of them have the characteristic of not being skillful at handling technology. The over-reliance on old teaching methodology tends to generate dissatisfaction and feeling of hostility towards styles of teaching adopted, and results in producing underachievers gauged against traditional assessment benchmarks adopted by Digital Immigrant instructors. This proclaimed challenge obliges the university as well as the ministerial authorities to adopt new reforms in curriculum, pedagogy, assessment, and professional development in education (Thomas, 2012). Starting then from this conviction and to fill the gap of research, the present paper shall firstly focus on the assumption underpinning the educational technology expertise, the skills, the preferences the generation of digital natives claims to possess and secondly on the exploration of the extent to which these digital skills are vital in boosting their employability.

2. Literature Review

2.1 The Digital Natives' Knowledge, Skills, and Preferences

One way through this claim entails critically examining what the digital natives possess that makes them different from the others who were born before the era of digitization. Actually, teachers, who suffer "the moral panic" (Glenn, 2013) are forced to use digital media to bring change to the teaching setting as well as to their conventional teaching methodology, cater for the needs of the digital natives, and accommodate them in their context, the unstructured, collaborative, and informal way of learning. This is done on the assumption that teachers perceive this generation to

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

possess different and sophisticated knowledge of technology skills as well as particular styles and preferences of learning, making proof that they are in panic of a recourse to a diverse type of pedagogy where digital media play the role of the mediator. Thus, the legitimate query is whether there is any qualitative evidence that supports the fact that "native naturals", as Young and Akerstrom (2016) call them, do have learning styles and preferences that differ significantly from the traditional learning styles or they simply possess similar styles and the medium, digital media, creates the discripancy. If this is to be the case, the teaching professionals therefore are cautioned not to create teaching and learning models that are not consistent with teaching and learning theories and should be well-thought out before.

Such a controversy created a hot debate among scholars such Prensky (2001b) and Westera (2013) who contend that there is a sort of digital gap between the digital naturals and the pre-digitals or the "digital immigrants" as Hofler, Geier and Zimmermann (2017) call them, and those who claim that they are only different in terms of styles and knowledge of digitality (Bennett, et al., 2008; Koutopolous, 2011 as cited in Hofler et al., 2017). The latter group stipulates that there are other factors, such as the socioeconomic and the cultural factors that interfere with and get those who are not immersed in technology, or lack motivation to use digital media, to lag behind even though they live and are born in the same epoch opening clear way for the success of the possessors of the distinguished digital skills and knowledge. The focus here is on the variation between the 'haves' and the 'have nots' of technology knowledge rather than between the belongingness to a certain generation, a digitized as opposed to a pre-digitized generation. However, the focus of this article is going to be on the last division.

Definitely, it does not need an expert to notice that this generation is haunted by its digital devices including smartphones, tablets, and computers everywhere. Consequently, it is obvious that these people are brought up in a digital information society where the digital immigrants, including teachers from the pre-digitized period, are to help them develop media literacy use as usage of such devices is a competency and skill that should be developed. What is more, the digital immigrants are to immerse themselves in this particular era to be digitally able to function appropriately.

2.2 Digitality in the Moroccan Tertiary Syllabus

Nowadays, students typically arrive at university with a distinguishing knowledge of digital devices that makes the digital immigrants look inferior and immature digitally in contrast to these tech-savvy who imposed a digital learning environment that is synchronous with the typical era they created. However, the legitimate inquiry here is whether we should overestimate students' digital knowledge and capabilities as experts who are au fait with the latest software when actually they may have surface expertise of these tools as when they send a work through the net or use some 3.0 applications as part of their self-directed learning style. As for the Moroccan context, it is attested that in accordance with the Article 10 of the Charter of Education and Training (Commission Spéciale Éducation Formation, 1999), the Moroccan Ministry of Education has started the implementation of ICTs in the Moroccan institutions which was enhanced later by the generalization of ICTs through GENIE program with the aim to advance the quality of teaching and learning. This gigantic step was initiated by equipping the Moroccan institutions, including higher education ones, with Internet connectivity and computers (Ajhoun & Daoudi, 2018).

Besides, the implementation of Le Plan National Maroc Numeric (Digital Morocco National Plan) in 2013 was considered as a substantial vector of human development and education along with the economic as well as public administration improvement. By way of explanation, this plan "aims to position Morocco as a technological hub in Africa" and an attractive academic pole (Ajhoun & Daoudi, 2018, p. 266). In fact, a study such as this could reveal important implication insofar as it could show whether the Moroccan students do really have digital training and expertise that the digital immigrants are unable to attain, hence the digital gap is bigger, or they have a limited knowledge of what is preliminary digitalization to survive in the digital era and in actual fact need to improve their digital skills and, in this case, the digital immigrants can no more feel naïve.

2.3 Digital Natives' Skills and Employability as Distinctive Features

The online English Oxford living dictionaries defines a Digital Native as "a person born or brought up during the age of digital technology and so familiar with computers and the Internet from an early age" and, who are a special category of people who are supposed to possess certain digital abilities and skills that are liable to ease their way into the labour market, hence boosts their employability. They are born into a digital culture and speak digitality as their first language in contrast to the digital immigrants who are born earlier but came later insofar as fluency in speaking

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

it (Prensky, 2001b). It is imperative that future research take these specificities into account because they altered both the environment and the participants who are the focus of this study.

The digital naturals are supposed to be exposed to a myriad of web 3.0 technologies potentials or at least to have had some training in their use. Rutherford and Standley (2016), based on an interview done with digital natives, revealed that these technologies could be of great importance in a workplace especially in screening candidates, proctoring workers, facilitating internal organization communication, coordinating group projects, and assisting in academic studies. This shows how relevant these skills are in employability of their holders. A major objective is developing students' awareness about these skills and preparing them to such high profiles that enable them to get recruited fast and perform well in a digitally-dependent market. Employability skills are therefore to figure in universities curricula and a fundamental element is training natives into the use of ICTs (Talon, Belaid, & Kershen, 2014 as cited in Rutherford & Standley, 2016) backed up by self-directed skills they develop through the use of web 3.0 technologies.

The objectives behind conducting this piece of research are: the identification of such a distinctive generation in terms of skills and learning preferences in contrast to the supposedly traditional or digital immigrants; investigating the nature of this generational change with regard to the claims universities advance about the inclusion of digital elements in the tertiary curriculum as an urgent reform; and the extent to which university equips this so-called digital naturals with the necessary skills that are predictable to offer them a major rim in enhancing their employability and securing highly-paid jobs for themselves. What is more, the main objective is to verify whether this generation is truly tech-savvy and that its exposure to technology can be equated with talent to use it.

The research questions of the present study are driven by the paucity of empirical evidence about the complex nature of the digital natives and what they possess as skills and preferences, as well as how much digitality that pushes the university to reconsider curriculum and prepare them for employability possibilities. The statements translating the main objectives of the study are:

1. What kind of sophisticated digital knowledge, skills, and preferences does the digital native generation possess that make it different from the digital immigrants?
2. How much 'digitality' is incorporated in the tertiary syllabus?
3. How vital are the digital skills in boosting this generation's employability?

3. Methodology

3.1 Design of the Study

The Survey Research used for the current study is explanatory in nature and aims at confirming or rejecting the preliminary theory, through empirical data and statistical analysis. It is commonly adopted as a data collection instrument for gathering information about the target population. Typically, the questionnaire survey is used for this purpose with a predefined series of questions to collect information from individuals. Such a survey research allowed the researcher to gather structured data from a large number of observations, which were then analyzed statistically. The second feature of the survey research used here is sampling. It is a technique whereby the subgroup of the digital naturals constituting the sample of the study is carefully chosen to answer the survey questions.

The survey questionnaire used for the current study therefore was administered face-to-face to guarantee a highest response rate; it is seen by the researcher as a better suited tool to collecting complex information about such a population like the millennials. It contains thirteen closed questions organized by three themes; the first theme is about the kind of sophisticated digital knowledge, and preferences the digital native generation possesses and that make it different from the digital immigrants; the second concerns the degree of 'digitality' incorporated in the tertiary syllabus, and the last inquires about how vital the digital skills this generation possesses are in boosting its employability. The constructs identified in the present research are: the degree of digitality, knowledge, skills, learning preferences, and perception of employability. After having coded the variables reflecting the constructs of the study and feeding them into The SPSS software, the researcher analyzed the obtained data.

3.2 Participants

The present work aims to investigate the extent to which digital natives really master the use of educational technology as part of the required digital skills at higher education level and how vital the digital skills are in boosting their employability. Hence, 218 students completed the questionnaire used in this study representing 81.2% of the response

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

rate. The focus was on the subgroup of students who belong to the class of digital naturals, born after 1980 (Smith, 2008). The sampling technique used in the present study is quota sampling. The use of quota sampling, as a nonprobability sampling technique, is justified on the ground that the researcher cannot have the population sampling frame, that's why the researcher had recourse to the stratification of the population into digital and non-digital and would proceed later by selecting the subgroup he finds relevant to his study, digital naturals. The quota is less expensive as it conveniently allows the collection of relevant data quickly and purposefully (Black, 2001). The quota sampling enabled the researcher to collect data from students at the university Ibn Tofail, Kénitra, Morocco, beginning of June 2018.

3.3 Instrument

A survey questionnaire is used for the purpose of collecting data about the sophisticated digital knowledge, skills, and preferences the digital native generation possesses, the presence or absence of 'Digitality' in the Moroccan tertiary syllabus, and the digital natives' skills and employability as distinctive features. Precisely, the instrument is a structured type of questionnaire that consists of 13 items with totally pre-categorized response options. Respondents are to tick off the closed questions and the responses are limited only to what is on the questionnaire. In social sciences research, questioning of the structured, undisguised type has the advantages of making explicit the aims and what is being measured; hence, respondents are put in a clear position to reveal what they know about the variables under study. The benefit of a questionnaire being structured is that the pre-determination of the questions reduces bias and makes it easier for interpretation later.

3.4 Data Collection

The data collection process started during the second term of the academic year, 2017/ 2018. In the first step, the researcher had the consent of the school dean even though he is a faculty at the same school. This was done to ensure that research is done under permission and that the data obtained are used for academic purposes. Participants expressed their willingness to take part in the study. In a second phase, 218 students were contacted face-to-face and were asked kindly to complete the questionnaire used in this study representing 81.2% of the response rate. The completion process took less than 320 minutes. The focus was on the subgroup of students who belong to the class of digital naturals, born after 1980.

4. Findings and Data Analysis

The data gathered in the present study were analyzed using the appropriate statistical techniques. To answer the research questions of the present study, analyses and interpretations were assisted by the Statistical Package for the IBM Social Sciences Program (SPSS), version 22.0. Initially, the negatively-keyed items were reverse coded from "1" to "5", "2" to "4" and so on. Thereafter, the statistical techniques to be used were descriptive statistics such as frequencies and means were calculated for all dimensions and statements.

The analysis of the assumed relationships among the main variables began by conducting preliminary statistical analyses. The first step was to assess the reliability and the internal consistency of the data using the Cronbach's alpha test. The next step was to conduct an Exploratory Factor Analysis (EFA), especially its simplest variant, the Principal Component Analysis (PCA), which was based on the same principle as Cronbach's alpha, to determine how well the items actually measure the variables they were designed to measure. The alpha coefficient obtained for the whole questionnaire used in this study using the entire sample was .70 (rounded up from .67 after results of the corrected item-total correlations), suggesting therefore that the items had relatively high internal consistency for the scale used with this specific sample. A reliability coefficient of .70 or higher was considered "acceptable" in most social science research situations (McNaughton, 2007, p. 149; Nichols, 1999; Stommel & Willis, 2004).

In addition to determining if the data were appropriate for a factor analysis, the sampling should be determined if it was adequate for analysis. This was accomplished by using the KMO. "The KMO compares the observed correlation coefficients to the partial correlation coefficients. Small values for the KMO indicate problems with sampling. A KMO value of .90 is best; below .50 is unacceptable" (Walker, 1999, p. 237). Specifically, Munro (2005) suggests that 0.5 values as minimum are barely accepted, values between 0.7 and 0.8 are good, and values above 0.9 are excellent. Because the data value was .654 which falls within the range of the accepted measure, it was concluded that there is confidence in the factor analysis and the appropriateness of the data. Furthermore, for this data, the Bartlett's test of Sphericity was highly significant ($p \leq 0.001$) and thus factor analysis was appropriate.

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

Table 1. KMO and Bartlett's test for the questionnaire

Construct	KMO Measure of Test Sampling Adequacy	Bartlett's Test of Sphericity		
Questionnaire		Chi-Square Value	*df*	Sig. *(p)*
	.654	467.166	55	.000

The result of factor analysis for the questionnaire (Table 1 above) indicates that KMO stands at .654 indicating sufficient inter-correlations between the factors and the Bartlett's Test is also significant (X^2=467.166) as p=0.000 is less than its associated probability value p<0.005. That is, the significance level is enough to reject the null hypothesis which further suggests that the original PCA is suitable for the current research.

Table 2. Descriptive statistics of the questionnaire items

Item		Frequency	Percent	Mean	SD
1. Respondents' age	Born Before 1990	130	59.6	1.40	.491
	Born after 1990	88	40.4		
2. In doing research, would you search paperback books or the web?	Book	68	31.2	1.81	.634
	Web	123	56.4		
	None	27	12.4		
3. Do you print out material from the web to read 'properly' later?	Yes, Always	45	20.6	2.44	.814
	Sometimes	32	14.7		
	No, I read digital Material	141	64.7		
4. Do you make use of new programs/applications as your browse or ask for help before starting?	I use the available programs/ I know what I am doing online.	48 98	22.0 45.0	2.20	.881
	I find solutions	53	24.3		
	I rarely use new programs/ computers I always ask for help	19	8.7		
5. Do you know what the term 'web 2.0' means?	Yes	176	80.7	1.19	.395
	No	42	19.3		
6. 6. Do you believe computers and smart phones can have educational value?	Yes, and I've used them for that purpose.	181	83.0	1.30	.692
	Yes, but not used them	8	3.7		
	No	29	13.3		
7. Can you talk on the phone at the same time as checking your e-mail?	Yes, no problem	137	62.8	1.63	.972
	Yes, but it takes some concentration	46	21.1		
	Yes, but I'd rather not	14	6.4		
	No	21	9.6		

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

8. Do you remember the time before the web was everywhere?	Yes No	81 137	37.16 62.84	1.48	.713
9. How would a day without technology be for you?	Normal Okay A Nightmare	144 35 39	66.1 16.1 17.9	2.48	.781
10. Have you ever used a blog, wiki, social networking site or blogging services?	Yes, all of the above Yes, some of the above	135 83	61.9 38.1	1.38	.487
11. Which learning context do you prefer?	Face-to-face environment where the teacher is the boss Computer-mediated environment where the student has a say Other	40 133 45	18.3 61.0 20.6	2.02	.625
12. how relevant are your digital skills in boosting your employability?	Very much Not much Not relevant at all	181 8 29	83.0 3.7 13.3	1.30	.692
13. in what way do your I Digital skills help you easily get to the labor market?	Companies need skillful workers in terms of language and tech Companies need workers with digitally positive attitudes Companies rely rather more on human capital Companies still rely on paper work	79 98 20 12	36.2 45.0 9.2 9.6	1.92	.914

As far as the analysis of the questions, the first question relates to the respondents' age. From the frequency distribution and out of (n=218), (n=130; 59.63%), it is noticed that the majority of the respondents are born before 1990 suggesting that they belong to the digital age targeted in this study. The respondents' mean scores (M=1.40, SD=.49) on the first item is not very close to the overall mean score (M=1.64, SD=.70) indicating a significant difference between the two age segments.

It seems that in the second question (n=123), 56.42% of our young respondents have a higher preference (M=1.81, SD=.63) to use the web for doing any type of research, while still a considerable number (n=68; 31.19) of digital immigrant sticks to the old habit of preferring the hardcover books for the same purpose. However, 12.39% made it clear that they are tangled in the midst of doubt between using either options.

The third question revolves around the idea whether our respondents are ready to use digital material or resort to the use of paper-based material that is mostly characteristic of the digital immigrants. Therefore, 64.68% stress that they read digital material which is a clear proof that they belong to the digital generation (M=2.44, SD=.81), whereas 20.64% of the same sample seems to be of digital immigrants' nature, and the remaining ones (n=32; 14.68%) oscillate between the use of the two versions and therefore may belong to the two categories of respondents.

The fourth question shows that 91.30% of our digital natives use the available digital resources as they have a grip on the online sphere and can easily find solution to their problems online (M=2.20, SD=.88). However, our digital immigrants look weak as to the digital monster and seek help mostly when in difficult situations (n=19; 8.7%). The rest of the respondents therefore represents the category of those who struggle to learn the tricks of the digital era to manage their own ways.

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

Of 218 participants who constitute the whole sample, 80.70% of the respondents declared they are acquainted with the term web 3.0 applications (M=1.19, SD=.35), whereas 19.30% seem to be incognizant of the term proving therefore their belongingness to the second category of the respondents targeted, the digital immigrants.

Separating the two groups while answering this question, 83.00% of the digital naturals strongly believe that smart phones and computers have educational salience in the educational process (M=1.30, SD=.69); whereas the rest (n=8; 3.70%), making up the digital immigrants, acknowledges their utility but seem to be resistant in their use. However, the last rate (n=29; 13.30%) reflects the conflicting opinions behind the use of these digital devices in educational contexts among both digital natives and digital immigrants.

In addition, as an answer to the seventh question, 62.84% are reported to be able to perform simultaneously the action of speaking on the phone and the action of checking the email inbox suggesting a fundamental feature of the digital generation immersed in the digital act as they developed abilities to perform concurrent actions (M=1.63, SD=.97) as opposed to (n=46; 21.1%) who believe to be in need of some concentration. Nevertheless, the remaining category is of two types; the first type (n=21; 9.6%) acknowledges lacking those abilities giving proof of their belongingness to the digital immigrants' category, and (n=14; 6.4%) affirming to be able to execute the mentioned skills but choose not to.

The eighth question is a kind of check-up for the first question. The purpose is to make sure where each generation belongs. Thus, the first category (n=81; 37.16%) remembers the era before the appearance of the Internet; that is to say the generation of the digital immigrants. However, the other category (n=137; 62.84%) does not remember that period as they were born after the Internet epoch making of them the digital naturals. The respondents' mean scores (M=1.48, SD=.73) on the first item is not very close to the overall mean score (M=1.64, SD=.70) indicating a significant difference between the two age segments insofar as the remembrance of the Internet era.

The question about the nature of a day without technology use reveals findings on the same line of the already mentioned results. Therefore, the category of the naturals (n=144; 66.06%) think that spending a day without any use of technology could result in a nightmarish experience that they cannot tolerate (M=2.48, SD=.78); however, for the immigrants (n=74; 33.95%), that same experience is not by any means terrifying for them given their readiness to even renounce technology.

Additionally, in the tenth question, the digitals (n=135; 61.93%) show that they are in the know of the services and applications of the web (M=1.38, SD=.48), while the immigrants (n=83; 38.10%) proved they know and use some of them, proving their limited knowledge of the mentioned web services and applications.

As to the eleventh question, the digital generation, (n=133; 61.01%) show their preference (M=2.02, SD=.62) for computer-mediated environment where the learner has a say. The digital immigrants (n=40; 18.35%), on the other hand, favor face-to-face environment where the teacher is the boss; whereas, the rest of both categories (n=45; 20.64%) chooses other means of interaction in educational contexts without specifying the type.

The question before the last one in the questionnaire revolves around the relationship between the acquisition of the digital skills and employability. Thus, 83.00% of the respondents clearly claim the utility of these skills in increasing their chances to get jobs in the future (M=1.30, SD=.69); however, (n=37; 17.00%, aggregate of both not much and not relevant at all answers) of the same sample see the opposite.

For the last question, the technology adherents (n=177; 81.20%) seem to lean towards being sure that companies and governments need both skillful employees in terms of language and technology skills as well as employees holding positive attitudes towards the use of technology at work (M=1.92, SD=.91) as opposed to the digital immigrants (n=41; 18.80%) who tend to think that companies and governments rely rather more on human capital who could do much paperwork.

5. Discussion

The overall aim of the present work therefore is to investigate the extent to which the so-called digital natives really have control of the use of educational technology either as part of their self-directed learning practices or as part of formal tertiary teaching, the type of technologies they prefer to use, whether they possess the required digital skills that are important for their future careers, and how vital the digital skills are in boosting their employability.

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

From the analysis of the results as well as the digital native literature, there seems to be a congruity between what has been advanced in the literature about the native naturals' skills and preferences, their confidence about the reality of the future that is deterministically digital (Keengwe & Byamukama, 2018; Livingstone, Livingstone, & Haddon, 2009), and the claims that the digital immigrants being resistant and see that they are lagging behind (Kurbanoğlu, Boustany, Špiranec, Grassian, Mizrachi, & Roy, 2018). In a similar vein, a third category emerges and surfaces with its distinctively undecided stance towards the two other classes.

It has been proven therefore that the digital generation distinguishes itself through its skills of research and the abilities to digitally make use of them in solving different situations online or using technology tools. Moreover, they demonstrated acquaintance with web 3.0 applications and tools as well as the gift to perform simultaneous actions using digital devices (Athreya & Mouza, 2016). A study working in this direction discovered that considerable differences were found between two cohorts as to their level of searching and selecting information sources from the Internet and communicating information to others using software applications (Thomas, 2011). In the same vein, Blink (2015) stresses the fact that today's students have grown with technology that the pervasive use of digitality is ordinary and that this digital-native mentality has forced the teaching staff, the digital immigrants, to migrate to their world and acquire the skills and expertise to use and master the devices.

Internet provides an enormous amount of knowledge and our millennials are found to possess abilities to digitally apply that knowledge in solving different situations online or using technology tools. Since digital natives are no more content with the traditionally given knowledge and that informal and social knowledge could be attained by getting connected to the Internet, they have proven to learn well only if they are networked. Unfortunately, our naturals have been only to be knowledge consumers and not producers or "prosumer." In this respect, Pinheiro (2016) maintains that by suggesting that the construction of knowledge needs experience and judgment, and the design of modern learning scenarios where technology is the tools, digital natives can learn by doing and therefore produce and share.

As to the preferences, digital natives echo what has been mentioned about their preferences and beliefs (Spector, Ifenthaler, Sampson, & Isaias, 2016). They tend to believe that technological devices have an immediate and a salient educational usefulness; they also think that these devices and the skills they possess in manipulating them enhance their employability rates. Moreover, they hold as true that companies and governments need skillful employees with digitally positive attitudes. Treat (2011) maintains that concerning the preferences of such a category, they lean towards learning in educational contexts mediated by technology tools and reading digital material. Because of the disparity between digital natives and digital immigrants insofar as learning habits, needs, and preferences, these latter have to provide them with optimal conditions for an effective learning environment. They revealed such preferences through a series of recommendations. Millennials should have the chance to customize their profiles online, received through voice or video online, be contacted through the online learning system, given the chance to learn online through Moodle and MOOCs (Pinheiro, 2016). This shows how digitally-oriented this generation and such results go hand in hand with what has been found in the present study.

In a nutshell, and with reference to Prensky (2001a), it could be concluded that today's students represent a *discontinuity* or *a singularity* as to the past generation. There is no going back for such a cohort that is singular in skills learnt, knowledge assimilated, preferences shown and manifested, and tendency to breathe the oxygen of digitality. They are heralding a huge change and educational institutions, universities are no exception, are to get adapted to their learning pace, their preferences, their styles of learning, and the environment where they can flourish.

6. Conclusion

Actually, what could have been arguments against the digital natives seem to be arguments backing up the notion of a 'moral panic.' Put another way, the media tend to portray the digital naturals as 'extraterrestrials' who want to establish the reality of things, which in fact was the reality. The debate fueled by the media that there needs to be an empirical evidence for the claims that there is a generation that threatens the future of social values and norms is indeed evidenced in the present study. The findings demystify some of what has been advanced in the literature, and back up some other claims proving therefore that this is not sensationalist type of discourse targeting the populous. This generation is undeniably discontinuously different from the digital immigrants who struggle to keep up with the tempo exercised on them. The divide is consequently maintained and the commonsensical attitudes held by those believing in the singularity of this generation as true is also sustained, and the urgent change called upon is fundamentally salient in bridging the gap between the two generations. Much work has to be done by the digital immigrants if they are to survive in the future that tends to lend itself to the new generation's law. Bearing in mind

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

these realities, educational authorities shall reform without failing to meet the realistic expectations of both generations. In a nutshell, these are strong arguments in keeping the myth of the digital natives "undemystified" as the myth is rather a bitter reality.

References

Ajhoun, R., & Daoudi, N. (2018). Morocco. In A. S. Weber & S. Hamlaoui (Eds.), *E-learning in the Middle East and North Africa (MENA) Region* (263-283). Cham: Springer.

Alam, F. (2014). *Using technology tools to innovate assessment, reporting, and teaching practices in engineering education*. Hershey, PA: Engineering Science Reference.

Athreya, B. H., & Mouza, C. (2016). *Thinking skills for the digital generation: The development of thinking and learning in the age of information*. Basingstoke, England: Springer.

Bennett, S. J., Maton, K. A., & Kervin, L. K. (2008). The digital natives debate: A critical review of the evidence. *British Journal of Educational Technology, 39*(5), 775-786. doi: 10.1111/j.1467-8535.2007.00793

Black, K. (2001). *Business statistics: Contemporary decision making*. Cincinnati, OH: South-Western College Publishing.

Blink, R. J. (2015). *Leading learning for digital natives: Combining data and technology in the classroom*. London, England: Routledge.

Commission Spéciale Éducation Formation. (1999). *Charte Nationale d'Éducation et de Formation.* Royaume du Maroc. http://www.uh2c.ac.ma/uh2c/loi/charte_fr.pdf

Cope, B., & Kalantzis, M. (2010). *Ubiquitous learning*. Urbana, IL: University of Illinois Press.

Glenn S. L. (2013). Digital participatory culture and German language pedagogy. In J. L. Plews and B. Schmenk (Eds.), *Traditions and transitions: curricula for German studies* (265-314). Waterloo, ON: Wilfrid Laurier University Press.

Hofler, E., Geier, G., & Zimmermann, C. (2017). How to design a mathematical app suitable for children: the myth of digital natives. In S. N. Şad and M. Ebner. Hershey (Eds.), *Digital tools for seamless learning in modern classrooms* (160-176). PA, USA: Information Science Reference.

Keengwe, J., & Byamukama, R. (2018). *Handbook of research on promoting higher-order skills and global competencies in life and work*. Hershey, PA: IGI Global.

Kergel, D., Heidkamp, B., Telléus, P. K., Rachwal, T., & Nowakowski, S. (2018). *The digital turn in higher education international perspectives on learning and teaching in a changing world*. Wiesbaden: Springer Fachmedien Wiesbaden.

Khosrow-Pour, M. (2002). *Issues and trends of information technology management in contemporary organizations: 2002 Information Resources Management Association International Conference, Seattle, Washington, USA, May 19-22, 2002*. Hershey, PA: Idea Group Pub.

Kurbanoğlu, S., Boustany, J., Špiranec, S., Grassian, E., Mizrachi, D., & Roy, L. (2018). *Information literacy in the workplace: 5th European Conference, ECIL 2017, Saint Malo, France, September 18-21, 2017, Revised Selected Papers*. Basingstoke, England: Springer.

Livingstone, S. M., Livingstone, S., & Haddon, L. (2009). *Kids online: Opportunities and risks for children*. Bristol, England: Policy Press.

McNaughton, A. K. (2007). *Instructional management profiles: The relationship between teaching styles, grade level preferences, and related factors.* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Database. (UMI No. 3348979).

Munro, B. H. (2005). *Statistical methods for health care research.* Philadelphia, PA: Lippincott Williams & Wilkins.

Pinheiro, M. (2016). *Handbook of research on engaging digital natives in higher education settings*. Hershey, PA: IGI Global.

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]

Prensky, M. (2001a). Digital natives, digital immigrants. *On the Horizon*, *9*(5), 1-6. https://doi.org/10.1108/10748120110424816

Prensky, M. (2001b). Digital natives, digital immigrants: Do they really think differently? *On the Horizon*, *9*(6), 1-6. https://doi.org/10.1108/10748120110424843

Rutherford, S. M., & Standley, H. J. (2016). Social space or pedagogical powerhouse: Do digital natives appreciate the potential of web 2.0 technologies for learning. In M. Pinheiro & D. Simoes. (Eds.), *Handbook of research on engaging digital natives in higher education settings* (72-97). Hershey, PA: Information Science Reference.

Smith, J. A. (2008). *Rethinking methods in psychology*. London: Sage.

Spector, J. M., Ifenthaler, D., Sampson, D. G., & Isaias, P. (2016). *Competencies in teaching, learning and educational leadership in the digital age: Papers from CELDA 2014*. Basingstoke, England: Springer.

Stommel, M., & Willis, C. (2004). *Clinical research: Concepts and principles for advanced practice nurses.* Philadelphia PA: Lippincott Williams & Wilkins.

Thomas, M. (2011). *Deconstructing digital natives: Young people, technology, and the new literacies*. New York, NY: Routledge.

Thomas, M. (2012). *Design, implementation, and evaluation of virtual learning environments*. Hershey, PA: Information Science Reference.

Treat, T. (2011). *Technology management: New directions for community colleges, Number 154*. John Wiley and Sons.

Walker, J. T. (1999). *Statistics in criminal justice: Analysis and interpretation*. Gaithersburg, Maryland: Aspen Publishers, Inc.

Westera, W. (2013). *The digital turn: How the internet transforms our existence*. Bloomongton, IN, USA: AuthorHouse.

Young, P., & Akerstrom, M. (2016). Meet the digital naturals. In W. T. Coombs, J. Falheimer, M. Heide and P. Young (Eds.), *Strategic communication, social media and democracy: The challenge of the digital naturals* (1-10). New York, NY: Routledge.

[Downloaded from mail.ijreeonline.com on 2026-11-19]

[DOI: 10.29252/ijree.4.1.69]