Digital Natives: Universally defined by Technology?

Symposium Proposal for

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<u>Overview</u>

The Pew Research Center recently identified 1996 as the last birth year for Millenials (Dimock, 2018), yet almost twenty years earlier, Marc Prensky had labelled the generation following Millenials as Digital Natives, and distinguished these new Digital Natives from Millenials and other previous generations to be Digital Immigrants (Prensky, 2001, p. 1). The focus of this distinction is related to advances in and the accessibility to technology for the new generation of students. Recent literature has addressed how this strong culture of technology will need to be incorporated into the classroom by teachers who will have to adapt/adopt new methods to engage these technology-driven behaviors of this newest generation (Adobe Communications Team, 2018; Cengage Learning, undated; Čut, 2017; Deady, 2017; Gillett, 2014; Lynch 2016).

Defining Digital Natives by their age range, however, presumes that all within that range have a common attribute in their use of a variety of technologies, yet other studies have questioned if the range of technologies used by Digital Natives is as universal as implied in the definition of Digital Natives (Cameron, 2005; Helsper & Eynon, 2010; Kennedy, Judd, Churchward, Gray, and Krause, 2008). To help clarify the association of the Digital Native generation with their level of technology access and use, Teo devised the Digital Natives Assessment Scale "to measure students' perceptions of the degree to which they are digital natives" (Teo, 2013, p. 51). Using principal component analysis with varimax rotation, Teo aligned 30 variables into four factors: 1) Grow up with technology, 2) Comfortable with multitasking, 3) Reliant on graphics for communication, and 4) Thrive on instant gratification (Teo, 2013, p. 54). He then used reliability indices to reduce the items to 21 within those same four factors (Teo, 2013, p. 55).

Using Teo's Digital Natives Assessment Scale (DNAS), the authors (Geyer, Klein, Peters, and Stamp) sought to address the role of technology in the Digital Natives definition in a variety of international cultures. Does this generation in separate countries perceive themselves to be Digital Natives? Are they similarly bound to their comparable technology? Are there demonstrable differences among students in different countries that could affect how teachers must adapt their teaching methods to effectively engage these Digital Natives, or are these students so similar that one teaching style can be adopted to fit all?

Data have been collected (thus far) from 294 students across three countries: Germany, the United States, and South Africa. Additional data will be sought in the Spring, 2019 semester at these sites. Preliminary findings are included in this symposium proposal. The focus of the symposium will be 1) to begin with a short discussion of these DNAS-generated results across these three countries, and 2) to discuss the implications of these results and the Digital Native generation in general regarding how their reliance on technology (and what appears to be a broader range of technology utilization) will necessitate changes in their higher education classrooms. In this open discussion, the panel will address their own experiences with this new generation of students and how they have integrated technology into their teaching. Following the panel's comments, the audience will be invited to share their experiences with this generation and any resulting impact on their teaching methods, assignments, etc.

<u>Synopsis of Contributions</u>
The symposium panel will consist of:
1) Christian Geyer, M.Sc., a doctoral candidate at the University of Hagen, conducted the data
  collection in Germany, and created the platforms for all respondents to submit their data.
  He will address the development of the project elements and intended future actions.

2) Torsten Klein, Ph.D., Professor at the Cologne University of Applied Sciences, has been
  Christian's direct faculty supervisor in this project, and collected data from the students
  in South Africa. He will address his role in developing the project, how he came to
  access data from South African students, and his own experiences with Digital Native
  students.

3) Jane Parent, Ph.D., Associate Professor at Merrimack College, has taught a variety of
  undergraduate higher education management courses for over ten years. She will share
  her perceptions of the Digital Native-aged students in her current classes.

4) Theodore Peters, Ph.D., Lecturer at the University of Baltimore, has helped develop this
  project and collected data from University of Baltimore students. These students differ
  from other students in the study because most are non-traditional students, outside the age
  range of Digital Natives. As such, however, they present results that can be
  compared/contrasted with the Digital Native-collected data from the other data collection
  points.

5) Pinki Srivastava, Ph.D., MBA, Executive in Residence at Harwick College, has over ten
  years' experience teaching in higher education. Her classes at Hartwick currently consist
  of the Digital Native generation, and she will share her perceptions of the Digital Native-
  aged students and their use of technology in her current classes.

6) Pauline Stamp, Ph.D., Assistant Professor at Hartwick College, has taught in business and
  higher education for over ten years. She collected data at Hartwick College, a traditional
  age, undergraduate college, and has employed technology extensively in her classes. She
  will share her perceptions of the Digital Native-aged students and her applications of
  technology in her current classes.

<u>Time</u>:
Given the unpredictable size of the audience, and their participation, the authors are flexible

regarding the 45- or 90-minute symposium length. Obviously, we hope for a well-attended

session that could cover 90 minutes of project presentation, discussion, insights, applications,

and future directions, but we also recognize the competition for slots on the program and the

relative newness of the topic, which may impact attendance. If a 45-minute slot is offered, we

will adapt accordingly by creasing the project presentation and more closely monitoring the time

allotted to panel members in order to still involve the audience.

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