30 BILLION DEVICES AUTOMATICALLY INTERCONNECTED BY 2020: IMPACT ON THE VLE

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A fact established is that in the next six years, over 50 billion devices will be interconnected over the internet automatically, an average of six devices per person. The concept popularly known as the Internet of Things (IoT, a.k.a Internet of Everything "IoE", Cloud of Things 'CoE') is fast gaining grounds and is bent to change the way we interact with the Internet. The IoT is estimated as a $1,423.09 billion dollar market by the year 2020. The fraction of this market to be accessed by the Education sector is yet to be determined. If the current figures are extrapolated however, this fraction promises to be quite substantial.

Adoption of the IPv6 scheme makes this possible to a large extent, since it has 340,282,366,920,938,463,463,374,607,431,768,211,456 IP addresses. This can conveniently allow for assigning about 100 dedicated IP addresses to each atom on planet Earth. This fact will naturally affect all paradigms of teaching and learning that leverage on IP networks for content delivery e.g. VLEs, eLearning and mLearning. In this paper, we consider the current approaches adopted in VLEs and how the emerging IoT (IoE) paradigms will impact them in the not too distant future. The study will help prepare the VLE stakeholders to be better equipped for the impending changes that cannot but occur.

keywords: internet of things (iot), internet of everything (ioe), virtual learning environment (vle), e-learning, sensor networks.