

# Establishing Digital Agency in the Internet of Things (IoT): Pedagogic Transformations From the DLI Fellowship

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## **EXECUTIVE SUMMARY**

*The concept of identity development itself is complex and difficult to define. Identity can be perceived as both an explicit (known to others) and implicit (known to the self) perception. The notion of identity development is multifaceted and is necessarily transmutable according to the interactive socio-contextual plane. Accordingly, the purpose of this chapter is to suggest two models that can be used in tandem to explain how faculty negotiated identity transformation from face-to-face to virtual learning environments (VLE) through digital agentic transformations within the framework of a digital learning fellowship initiative. Using the Johari Window of Personal Identity in tandem with Hall, Loucks, and Rutherford's Levels of Use filtered through a sociocultural theoretic lens, it is suggested that faculty perception of the virtual and non-virtual self can experience significant and sustained pedagogic agentic change according to the type of sociocultural interactions situated within and external to a VLE.*

## INTRODUCTION

With the introduction of Internet 2.0, researchers in the field of education began to examine the ways in which educators and students were negotiating their interactions across different platforms and devices in the Internet of Things (IoT). The IoT is defined as the interconnectivity of Internet embedded devices allowing them to send and receive data between end-users (Kravčík, Ullrich, & Igel, 2018). For 15 years, the New Media Consortium in collaboration with EDUCAUSE Learning Initiative generate a report entitled *The Horizon Report* (2019) in which key trends, challenges, and developments in the field of educational technology related to the IoT are explored. The underlying purpose of the report is to address short-term gains, long-term trends, and future challenges educational theory and technologies necessarily change. Specifically, the 2019 report suggests an emerging trend among educators to retool the traditional linear classroom model in favor of a redesign that promotes the learner at the center engaged in real-world learning using different virtual venues. Authors of the report also suggest that while institutions of higher learning are redesigning learning spaces to more blended environments, their long-term goals are to actually create a culture of innovation in which there is sustained change in how institutions of higher education actually work. Thusly, it is suggested that there is an expected shift in identity in terms of how the educator and learner view their agentic roles within and external to the virtual learning plane (Niess, 2018). It is within this identity shift that, it is theorized, the notion of the digital agentic self is ultimately revealed (Kumpulainen, Mikkola, & Rajala, 2018).

The concept of identity development is complex and difficult to define (Sokol, 2009). Identity can be perceived as both an explicit (known to others) and implicit (known to the self) perception. The notion of identity development is multifaceted and is necessarily transmutable according to the interactive socio-contextual plane (Ethier, & Deaux, 1994). Accordingly, the purpose of this chapter is to suggest two models that can be used in tandem to explain how faculty negotiated identity transformation from the face-to-face to virtual learning environment (VLE) through agentic transformations within the framework of a digital learning fellowship initiative. Using the Johari Window of Personal Identity (Luft & Ingham, 1955) in tandem with Hall, Loucks, and Rutherford's Levels of Use (1975), it is suggested that faculty perception of the virtual and non-virtual self can experience significant and

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