Teaching Blockchain in the MIS Curriculum

TREO Talk Paper

David R. Firth
University of Montana
David.Firth@umontana.edu

Abstract

The emergence of blockchain strikes at the heart of the AMCIS 2018 SIGED call, and also to the heart of the theme for AMICS 2018: Digital Disruption. The aim of this TREO talk is to discuss how we can introduce and integrate the topic of blockchain in the MIS curriculum. I will cover how to introduce the topic to the spectrum of MIS classes, how to unpack the many layers and nuances of blockchain, the depth vs breadth debate on how much and how deep to cover the topic, and finally how to integrate projects as well as the topic of bitcoin into the classroom.

The prevalence of media coverage of bitcoin makes it an excellent entry point to a more nuanced discussion of blockchain. In most cases the discussion about bitcoin will start with “what is bitcoin and should I invest in it?” Instead I suggest starting with something that is more familiar for students: the purchase and sale of used cars. Students often understand a large number of the underlying attributes that would make it sensible to purchase a used car. From this I demonstrate that the same is just not true for bitcoin which leads us to the fact that we need to understand what supports bitcoin, which is blockchain. This "shall I invest in bitcoin" discussion can occur in almost every class in the MIS curriculum.

To further unpack blockchain for class, we start discussions with the Avital et al. (2016) definition of blockchain, examining each word of the definition in turn and posing a set of directed questions that result from each word for a discussion which can fill one or two class periods. The breadth versus depth discussion will also be discussed. Kursh and Gold (2016) surveyed offerings of FinTech curriculum across several schools and found that there were “overview vs. specialized” offerings. Importantly, the “split between courses that provide a broad overview of the entire FinTech universe versus courses that examine one specialized aspect of FinTech (i.e. [sic], Bitcoin or cryptocurrency) is 50-50”. This suggests that there is no one way to present this topic correctly when it comes to blockchain education and the choice should be guided by the vision and strategy of your particular MIS department.

To encourage hands-on learning, we suggest students set up in Ethereum as a useful way to help them understand blockchain issues. This setup can be accomplished by providing access to YouTube tutorial videos to help students accomplish this task. We have also found that students need four to five weeks to master concepts like blockchain so that they can effectively help local companies, which leaves too little time to actually work on blockchain projects for those companies. As a result, we do in-class projects to support learning which I will cover in the TREO talk. Finally, we discuss bitcoin and some of the technical aspects of how it works, including cryptomining. In class we discuss headlines such as “Canadian couple pours life savings into bitcoin mine” (CBC 2017). I will discuss my approach in the TREO talk.

References

