CySec: A Collectible Card Game for Children

Challenge

There is an underrepresentation of American urban youth in the cyber security field.

Solution

Develop a CCG to teach Urban Youth about Cyber Security and Enthusiasm for Cyber Security Careers

Scientific Impact

Development of CCG for urban middle school students which will increase their knowledge of cyber security and cyber security careers. This will contribute to design science for children, knowledge of gamification for learning, and augment the cybersecurity capacity of the United States.
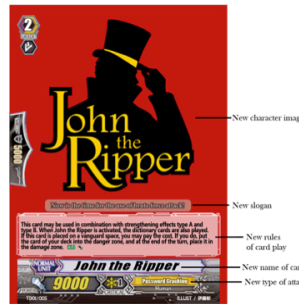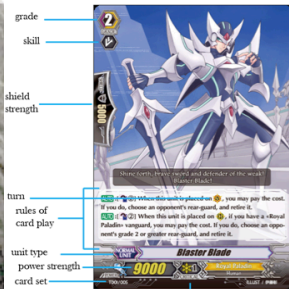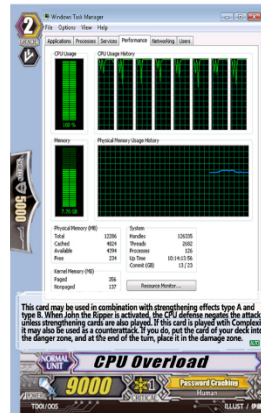
Figure 1a: A card from the game, Cardfight Vanguard

Figure 1b: A reimagined version of the same card that would be part of a game to teach cybersecurity

Broader Impact

This project has a great deal of the potential to benefit society and contribute to the achievement of specific, desired societal outcomes. Because of its goal to create a CCG and design recommendations for a future digital version of the game, the CySec project will be of interest to educational institutions across the country. It uses a relatively inexpensive gaming approach and an innovative after-school model to help underrepresented minority students succeed in learning cybersecurity through a CCG. Its broad dissemination will be achievable as the CCG will be downloadable online, printable, and can be used without any new investment in high end technologies. It addresses issues related to both the usability of the CCG among students and the feasibility of the CCG among teachers while promoting cybersecurity careers.