Public Abstract
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Problem-based learning (PBL) is an instructional approach that has been employed successfully since the 1960s and continues to gain mainstream acceptance in many areas of study. PBL is an instructional, and curricular, learner-centered approach that empowers learners to conduct research, integrates theory and practice, and applies knowledge and skills to develop a viable solution to a defined problem (2). In order to gain a wider acceptance in K-12 classrooms, PBL might need to take a technological approach. But with technology, just like education, there are many possible solutions to consider in solving a problem. This paper will discuss a proof of concept prototype built for the Nintendo DS to further PBL education. Because of the built-in Wi-Fi access, massive textual input possibilities, and existence of a large hobbyist development community, the Nintendo DS is the clear choice for this prototype. Many features of the Nintendo DS (and other video game consoles) will be discussed in length in this paper such as backgrounds, sprites, tilesets, input, and Wi-Fi.