



Digi Citi: A Digital Citizenship Platform for Students

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Rationale and Project Description

Students' online presence is exponentially increasing, and to prepare students for the potentially dangerous world of internet use, many countries are now requiring educators to teach digital citizenship curriculum, with the intention of teaching students online safety and responsibility (Gleason & Von Gillern, 2018). Currently, Common Sense Media is servicing 76% of all public schools in America with their digital citizenship content (Gleason & Von Gillern, 2018). Common Sense Media, like most other educational platforms for digital citizenship, is tailored to educators. These platforms provide guided lesson plans, videos, and activities to support educators in their instruction. Our project addresses a gap in the educational technology sector. We are creating a proof of concept for an interactive platform that presents an age-appropriate digital citizenship curriculum, for grades Kindergarten to Grade 5, that situates learners as active participants, allowing them to learn independently.

Our platform gives teachers and parents the ability to create accounts, where users can then gain access through easy-to-use personalized QR codes. When students log on, they will have the option to create, and continually upgrade their avatar as they become more equipped with digital citizenship skills. Users will have the option to start lessons in one of five categories of digital citizenship skills. The five categories will be internet safety, privacy, cyberbullying, social media safety, and digital well-being. Each category will have a minimum of five activities for students to complete. The activities will be multi-modal and range from videos with questions and answers to games, such as choose your own adventure stories. These activities will mimic real-life experiences tailored to grade-level interests. When students complete all of the activities for one category, they will receive a certificate of completion, and receive points and badges, as in the example above. For this project, we will be creating a proof of concept of the possibilities of this envisioned platform through the use of a website. Furthermore, for this proof of concept, we will target Grade 3 students, and develop one internet safety interactive lesson tailored to this grade level. It will be a choose-your-own-adventure lesson created through Twine, that will be embedded into our platform.

Usability

Central to this proposal for our learning tool is the question of usability. Nielsen (2003) best captures our interpretation of this term in writing, “[usability] is a quality attribute that assesses how easy user interfaces are to use”. In order to frame our design choices, we have developed a guiding question. We ask: how can we create an

interactive platform that presents age-appropriate digital citizenship curriculum that situates learners as active participants, allowing them to learn independently? In order to address this guiding question, several principles of usability have been considered.

At the forefront of our usability considerations is the user themselves and the user interface. These considerations begin with how learners will access the platform to how they leave the platform. Envisioned as an app, this platform will be accessed through the use of personal QR codes. This will benefit the interface as users will not need to spend time retrieving and entering account information or passwords but will rather be able to enter the platform seamlessly. This consideration is one example of how we aim to ensure our tool is easy to use. Learnability is another factor that is central to how we plan to achieve a high level of usability.

Learnability is how “new users can begin effective interaction and achieve maximal performance” (Issa & Isaias, 2015, p.33). This will be addressed in our platform design several ways. One example is that the app will rely heavily upon clear and consistent visuals and navigation tools to guide users through the platform. These elements will enable users to feel a sense of continuity through the multimodal aspects of the presented content. The sequencing and scaffolding of information will also help ensure that users are not overwhelmed and instill a sense of ease and efficiency in using the platform.

Critical considerations

Digital citizenship has become a critical skill for 21st-century learners as students as young as Kindergarten are accessing digital technologies. Lauricella et al. (2020) argue that “children are viewed as both being impacted by society as well as an agent of impact on society” as they grow up in a participatory culture influenced by media convergence. Comparatively, Woolgar (1990) argues for the existence of cooperative relationships between the user and the machine.

As such, one aspect of our platform that we will design is a game-based learning tool that engages students in a “choose your own adventure” experience, exploring digital citizenship competencies. By using Twine to design our proof of concept for one lesson, students actively interact with the technology and their choices alter their outcomes, thus the options are configuring the user's response and vice versa. By presenting a scenario on Twine, students will be given the opportunity to make a conscious decision of how to act in an ethical and responsible manner in a safe digital learning environment. Through this storytelling game, students are provided with explicit instructions on digital citizenship in order to be intentional users and consumers of technology. To incorporate pedagogic interactivity, students are involved with making meaning of the content by applying their knowledge of digital citizenship while shaping their understanding and learning about the impact of their actions. Furthermore,

gamification elements are employed to engage the user with the platform, in particular, users will have the ability to configure their own avatar and feel a sense of connection to the game.

To assess the tool's usability with an educational interface design, we will focus on the user's interaction in creating their own narrative around digital citizenship. The variation in paths that the user can choose facilitates the learner's purpose and fulfills the learning expectations of gaining skills to act critically and competently in the digital world while being respectful and responsible with the use of technology. In order to further assess the tool's usability, preference measures will be utilized. Within the platform, users will be prompted to provide feedback and opinions concerning various elements of the platform. For example, following the completion of a Twine game, users may need to complete a brief reflection before proceeding to gather their gamification incentives (points/prizes). There will also be a simple survey at the end of each category asking the user "Would you recommend this to a friend?" with the thumbs up/down symbol. This data can then be used to help us make changes and updates to activities in order to better serve users and, ultimately, increase the platform's usability.

References

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