

University at Albany Libraries

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Inoculation Against Disinformation: Expansion and Digitization of an Information Literacy Instruction Role Playing Game

Introduction: The University at Albany Libraries, in collaboration with the College of Emergency Preparedness, Homeland Security, and Cybersecurity (CEHC) will adapt and digitize an existing information literacy instruction game entitled *Werewolf on Campus: Recognizing Misinformation in the Wild*. An in-person version of this game was developed and successfully tested in the classroom¹ by one of the investigators on this project. Initial findings align with other research that indicates students who engage in gamified inoculation perform better at identifying markers of mis and disinformation, but the ability to recognize mis and disinformation reverts to previous levels without the opportunity to practice or reinforce the skills learned in the game. Research also supports the use of fictional scenarios, as it avoids polarizing or distressing topics. Developing an online version of the game will allow the investigators to add more materials, activities, and assessments; reach a broader audience; and provide more opportunities to engage with students to reinforce information literacy concepts. This project aligns with Objective 1.1 and Objective 2.1.

Project Justification: Online mis and disinformation is a known and growing problem. Despite the efforts of librarians and instructors across the country, deceptive or unreliable sources proliferate and fool people into believing false or misleading claims. The consequences of this can be dire when disinformation directly affects how people vote, respond to public health concerns, spend their money, understand the law, engage with education, or treat other members of their communities. Students learn to find reputable or reliable sources for their assignments, but they often struggle to apply information literacy skills beyond the classroom. Traditional information literacy instruction in higher education typically focuses on the use of academic resources, especially peer reviewed scholarship. There is a gap between what students learn about online information in college and their perceived “real life,” which disinformation producers readily exploit. The *Werewolf on Campus* game aims to address that gap by explicitly moving away from conventional academic sources and topics to teach universal indicators of mis and disinformation.

In other studies, information literacy education proved more effective when combined with gamified elements to promote active learning and increase engagement. Since the initial physical version of the *Werewolf on Campus* game proved effective in increasing student engagement, learning, and retention, an expanded online version should amplify those outcomes and allow a much higher number of people to benefit. This supports advanced knowledge and learning opportunities for all by increasing players’ necessary information literacy skills in a concrete, widely applicable way.

It will also promote inclusive engagement across diverse audiences. The fictional elements of the game are specifically designed to avoid many of the common emotional pitfalls in traditional information and media literacy instruction. Rather than discussing uncomfortable or controversial topics relating to politics, current events, or alarming issues in the news, players can learn to recognize the universal indicators of mis and disinformation in a low-stakes, engaging environment. It allows students to learn from failure or notice gaps in their own understanding without harming their grades or facing pressure to publicize their views on politically charged topics. Moving the game to a digital platform allows for greater immersion and even more accurate indicators of unreliable sources to improve learning outcomes for all players.

Proof of Expertise: The co-investigators on this project are subject librarians who work primarily with disciplines that rely on both academic and non-academic information sources. We have published and presented individual and co-authored scholarship on COVID-19 disinformation, inoculation and gamification, emergency preparedness, trust in institutions, grey literature, government information, and the research-policy gap. We teach disciplinary information literacy one-shots to undergraduates and graduates; we are also adjunct professors in the MSIS program in CEHC.

¹ Adams, A. (2023). Werewolf on campus: A case study in inoculation theory and gamified one-shot library instruction. *Public Services Quarterly*. 19(4).

Project Work Plan: During the first year (August 2024-July 2025), we will collaborate with graduate students in the Informatics program in CEHC at the University at Albany to design and program a web-based version of the print format game. The online version will expand the paper game, adding audio-visual elements and allowing deeper investigations of the fictional sources to better simulate the types of real-world information, misinformation, and disinformation students may encounter.

During the second year (August 2025-July 2026), we will launch a beta version of the game and distribute it to a limited number of users via university classes for prototype testing, user experience testing, accessibility testing, and troubleshooting. We will collect data on web game use and effectiveness during this phase.

During the third year (August 2026-July 2027), we will launch the final version of the game for wide distribution in academic libraries at the university and community college levels, test the game among public library patrons, and utilize it with high school students. This final phase will also include web game maintenance, troubleshooting, and updates. During this time, we will analyze the data collected over the course of this project to determine the game's overall effectiveness compared to other instructional methods and how best to use it in increasing information literacy skills and inoculating players against real-world mis and disinformation.

Diversity Plan: The game will assist people of all backgrounds, experiences, and abilities in developing effective information and media literacy skills. Different disinformation purveyors target different groups, so having a diverse range of people inside academia and out learn about broad propaganda techniques and universal indicators of mis and disinformation will ideally improve information literacy and media savvy across a wide range of demographics. A better social grasp of disinformation and credibility also provides a buffer against harmful but baseless claims meant to incite hate toward minority and/or disadvantaged groups.

Project Results: The physical version of *Werewolf of Campus* improved student learning outcomes compared to a traditional lecture-based model of information literacy instruction. The online version will increase its effectiveness further. Moving from a paper-based game to a fully digital one will increase the game's capacity in a number of ways. More students and players will have access to it, and the game will not be dependent on physical proximity in a classroom at UAlbany. The sources will also be far easier to update, customize, and/or publish, making the game more accessible to instructors and players at any time or any location.

Adding audio-visual elements will allow the game to capture elements of online disinformation that are currently missing, such as those mimicking YouTube or TikTok videos. It will also allow players to explore sources in more depth, again doing a better job of mirroring actual online information and disinformation. This will deepen the skills and lessons gained from playing the game.

A built-in recap will ensure the players see the real-world parallels and clearly understand all the built-in indicators of unreliability whether a librarian is present to explain or not. Again, this will increase the efficacy of the gamified information literacy instruction and improve the learning outcomes for players.

Budget Summary: Total \$94,452 (\$39,057.00 Student Support; \$5,162.00 Fringe Benefits; \$15,000 Travel; \$297.00 Supplies, Materials, and Equipment; \$11,500 Other Costs; \$23,436.00 Indirect Costs).