



Wilson  
Center



Serious Games  
Initiative

## Defenders Against Disinformation: Defeating Disinformation with Digital Gaming



The Wilson Center's Serious Games Initiative is developing a civic education game and learning program about how to prevent the spread of disinformation.

The game will empower students in secondary schools in NorthEast Washington Educational Service District 101 (ESD 101) in Washington State to a) understand different strategies used to spread disinformation by malignant actors; b) provide students with a hands-on learning experience around strategies and policies to combat disinformation at the institutional level.

This program was launched thanks to initial support from the Department of Homeland Security's Targeted Violence and Terrorism Prevention Grant Program.

Key to this game is empowering students to feel they can do something about disinformation. Players will encounter new emerging threats, fictionalized and generalized but based off of case studies of past disinformation attacks. To combat these threats, players will manage a superhero team, representing three "agents" or different stakeholder groups with their own unique powers e.g.:

- Government (example powers: enacting national policy)
- Media (example powers: promoting literacy, validating sources)
- Industry (example powers: setting up security measures, flagging disinformation on platforms)

Players must use their agents' powers to tackle disinformation threats. Each threat will have its own unique dimensions that can be countered by the superheroes. The threats will be scaled on three different powers:

- Division: how effective the disinformation causes polarization
- Virulence: how effective a threat is at spreading across information networks
- Resources: how backed by different organizations that purposefully move the threat forward

For example, a grassroots call around fairly harmless offensive rhetoric might be low on its divisive qualities, but high on how effective a threat is at spreading across information networks. In contrast, a government backed disinformation lower on virulence due to its targeted nature, but heavy on resources. By encountering these different types of threats, players will learn that different responses are needed to help mitigate disinformation.

**This game will not only help students understand different types of disinformation but also:**

- Make the learning process more engaging;
- Motivate learning beyond the game;
- Gain familiarity with different capacities across institutional stakeholders.
- Understanding what solutions are available to mitigate disinformation.



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# Defenders Against Disinformation: Defeating Disinformation with Digital Gaming



**Project Abstract:** This project targets disinformation as a means of devaluing a recruitment tool for radicalization. The Wilson Center's Serious Games Initiative will develop an educational digital game and supportive materials for educating students in secondary schools in NorthEast Washington Educational Service District 101 (ESD 101) in Washington State on disinformation. Specifically, this digital educational game and learning program will help students understand different strategies used to spread disinformation by malignant actors and provide students with a hands-on learning experience around strategies and policies to combat disinformation at the institutional level.

**Application tracks:** Innovation Track; Raising Societal Awareness; Civic Engagement; Media Literacy and Online Critical Thinking Initiatives

Funds Requested: \$750,000 | ND Grants EMW#

The Wilson Center | Serious Games Initiative | 1300 Pennsylvania Ave, Washington, DC 20004



## 1. Needs Assessment

Disinformation and misinformation are tools used by terrorist organizations on social media to radicalize at-risk audiences such as youth (c.f. Piazza, 2020). Part of its effectiveness is in capitalizing on existing beliefs, particularly fears, that those audiences have and amplifying them (Johnson, 2018). Disinformation can be used to distract and divide audiences, marginalizing them from outside influence through the targeted promotion of extreme beliefs. This puts those audiences at risk for greater influence from terrorist organizations in both recruitment and radicalization.

In a forthcoming piece “A Million Clicks to Freedom: The Virtual Battlefield of Ideas in the Arab World” by Prof. Nadia Oweidat, Fellow at the Wilson Center, the impact of social media on youth audiences is underscored as a key dimension to understanding the state of divisive, terrorist tactics. As a tool to radicalization, youth are particularly vulnerable to disinformation due in part to the prevalence and reliance on social media combined with a lack of media literacy (Frau-Meigs, D., 2019). In one study, less than 20 percent of high schoolers seriously questioned the source or sources of images on social media (Wineburg & McGrew, 2016). Disinformation is a clear threat when considering its potential device nature and the means in which it can be used to radicalize young people.

To address that threat, this project would serve middle school and early high school students in NorthEast Washington Educational Service District 101 (ESD 101). There are over 92,000 students enrolled in ESD 101, with students from 6th to 9th grade consisting of 28,414. For the entire district, 49.9% of the district qualifying as low-income according to the Washington Office of Superintendent of Public Instruction’s annual report card for 2021-2022 (Washington State Report Card, n.d.).

There are some projects in process that target this population, specifically for in-classroom use, that address disinformation:

1. Upcoming projects supported by the **Media Literacy & Digital Citizenship Grants** from the Washington Office of Superintendent of Public Instruction (OSPI) (Media Literacy & Digital Citizenship Grants, n.d.). Projects are evolving from Franklin High School in Seattle and from Battleground, LaCenter, Longview, Vancouver, and Washougal School Districts, who are developing media literacy curriculums, which will be posted onto the Washington OER Hub.
2. **Existing resources on the Washington Open Educational Resources (OER) Hub.** This hub is a digital access point for educators to download curriculum-based activities. It currently includes 18 curriculum-based activities (Media Literacy & Digital Citizenship Collection Resources, n.d.) that focus on media literacy and/or content pertaining to disinformation, deepfakes, etc. The most visited activity has been saved only 34 times, and are largely activity (e.g. searching the internet) or PowerPoint-based learning modules.
3. **Nationally available digital tools.** There are other digital tools, specifically games, that address disinformation that could be used in the classroom setting but in conversation with educators in ESD 101, are not used due to a lack of integration with the classroom. These include but may not be limited to:

- Breaking Harmony Square, developed by the U.S. Department of State's Global Engagement Center (GEC) and the U.S. Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA), in collaboration with DROG and the University of Cambridge.
- Bad News, developed by DROG
- Newsfeed Defender, developed for iCivics by Filament Games
- iReporter, developed by BBC
- Factitious, developed by American University (no longer available)

These games are/were freely available online, and range in approach from putting learners in the position of identifying false information based on the headline or short article (Factitious), putting learners in the shoes of a malign actor to understand how disinformation is created (Breaking Harmony Square, Bad News), or emphasizing the ways in which integrity of news can be preserved online (iReporter, Newsfeed Defender).

Combined, these resources focus primarily on two learning objectives: a) how to identify disinformation; b) how disinformation spreads. These are critically important lessons, however, do not address another critical need: how to stop disinformation. When this is presented, it is largely in an awareness module and inaction ("don't share disinformation") which puts the burden of action strictly on individuals. There are many solutions beyond what one person can do.

One of the fears with disinformation is that solutions feel out of the hands of individual action. Disinformation is a systematic problem, and many of the solutions can take place at the institutional level. This game would illustrate solutions to disinformation and empower learners. The Wilson Center has a history of leveraging the medium of games around such topics as international policy, the federal budget and national debt, all by promoting research and through a nonpartisan lens. In doing so, we allow learners a space to understand policy and empower them beyond the game experience itself.

## **2. Program Design**

This program would build off of previous practices to combat disinformation. Studies have illustrated an effective prevention method for disinformation is to use media to "inoculate" key audiences against disinformation, such as through watching videos that identify common strategies for disinformation so that the audiences are aware of malign actor strategies (Lewandowsky & Yesilada, 2021) or playing games that pre-bunk players and make them more resilient in the face of disinformation (Basol et al., 2020). This line of research suggests that through exposure to disinformation, audiences will become more resilient in the face of disinformation.

However, while these approaches make players more likely to question disinformation, they do not teach audiences how to prevent or defeat disinformation. The focus is largely on individual action of "not spreading" disinformation, but this is only part of the way to combat disinformation. In fact, a key component of health messaging using an inoculation method is the empowerment of audiences to feel they can do something about the problem (Jackson et al., 2015).

In the realm of disinformation, prevention must be coupled with other, more systematic and institutional levels of prevention that go beyond an individual's capacity for action, such as governmental or industry action (Mutisya, 2019). There are many courses of action that go beyond an individual capacity to an institutional level. The Wilson Center, a nonpartisan, non-advocacy think tank based in Washington, D.C., created a workshop on Defeating Disinformation. The audience for this workshop was primarily Members of Parliament, Congressmen, and staff from the UK, Europe, Brazil, and the US. For this workshop, a tabletop exercise (wargame) was created that relied on the RESIST Toolkit developed by the UK Government Communication Service (c.f. Pamment, 2021). It was a hands-on exercise to teach workshop participants not only how to identify disinformation, but how to work across stakeholder groups (i.e. media, industry, and government) to respond to disinformation – and significantly for prevention, the need to formulate both short-term and long-term collaborative plans of action.

Qualitative analysis found the gaming exercise to reinforce those strategies, and that more was needed to help understand the different strategies that were needed at the institutional level. Therefore, we propose putting the power of this strategy process into a format the students of NorthEast Washington Educational Service District 101 can really engage with: a digital game focusing on disinformation tactics.

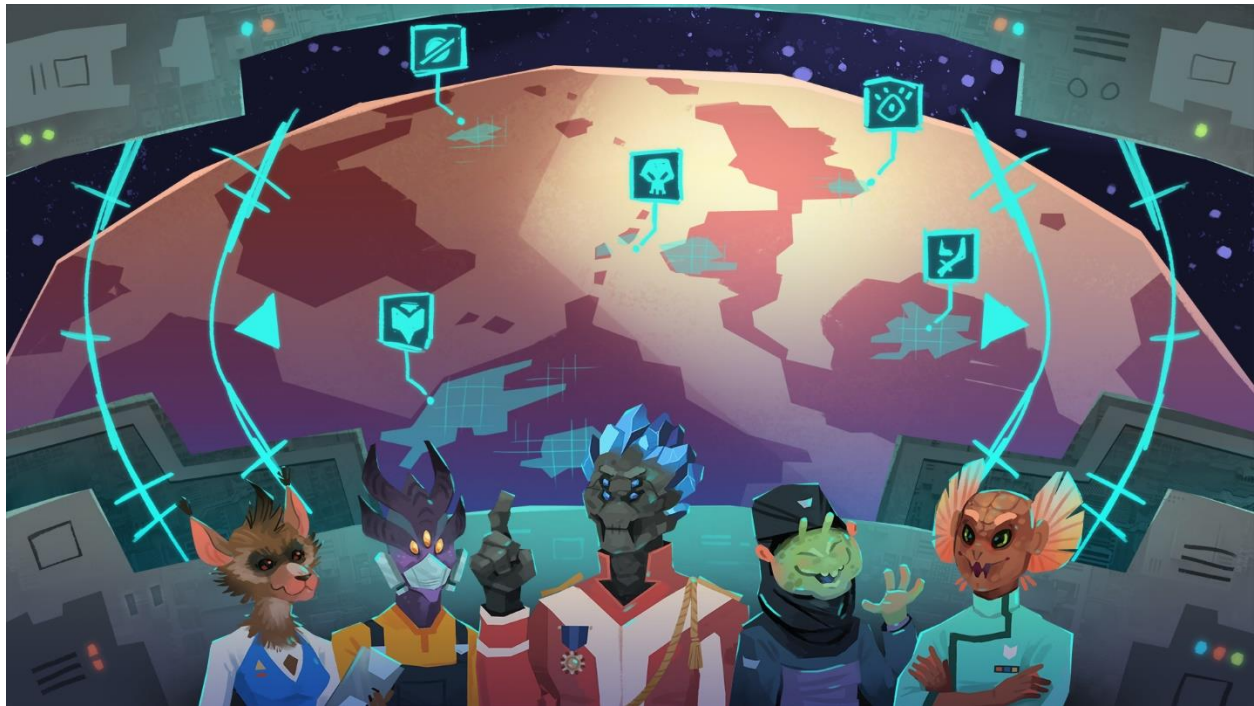
#### *About Serious Games*

One of the most effective mediums for education, due in part to its link to high-motivation, knowledge-retention and self-directed learning, are games. Serious games, or games designed for non-entertainment purposes such as education, can be used to empower players and present information in a way that gives them ownership over their own learning process due to the interactivity of the medium. The most prevalent learning outcomes for games include knowledge acquisition, skill development, and cognitive training (Boyle et al., 2016; Connolly et al., 2012). Learning facts or key messaging points on the topic that the game covers, or knowledge acquisition, is a vital part of an educational experience -- particularly when the game seeks to address gaps in knowledge. Games can improve motivation to learn (Lehman et al., 2017), specifically by increasing enjoyment and engagement (e.g. Garneli et al., 2017).

A key question about any educational outreach is mapping knowledge gains and acquisition (Connolly et al., 2012). From games that can help gain computational and programming knowledge in STEM (Lin et al., 2020), math literacy (Brezovszky et al., 2019), measuring media literacy (Grace & Hone, 2019), to American history (Breuer & Bente, 2010), knowledge acquisition through serious games is an area of demonstrated potential. Within the classroom, serious games can be a more effective tool for knowledge gains when compared to traditional strategies (Ayo-Vaughan & Amosun, 2016; Brezovszky et al., 2019; Connolly et al., 2012). Serious games can also extend learning outside of the classroom and have a demonstrated impact (Grace & Hone, 2019; Huizenga et al., 2019).

Therefore, the first goal of this program is to leverage a serious game to help improve understanding about how disinformation can be implemented by malignant actors. The second goal is to help students gain knowledge about different ways in which we can mitigate disinformation at the societal level. In doing so, we will help empower students to not only identify different disinformation strategies but also that something can be done about the spread of disinformation.

## A. Game Concept



*Figure 1 Concept art provided by Filament Games*

In past games through the Wilson Center, the ethos of empowering players to action has been central. The first game ever produced through the Serious Games Initiative was called *Budget Hero*, which puts players as the superhero of the federal budget to conquer national debt. Combined with its predecessor, *Fiscal Ship*, these games reached over 3.5 million plays worldwide.

In a similar vein of empowering players, this game would put players in the role of managing a superhero team, representing three “agents” or different stakeholder groups with their own powers, e.g.:

- Government (example powers: enacting national policy)
- Media (example powers: promoting literacy, validating sources)
- Industry (example powers: setting up security measures, flagging disinformation on platforms)

Players will see new emerging threats of disinformation, based off case studies of disinformation threats from past years validated by disinformation scholars at the Wilson Center and beyond (see B. Process). Players must use their agents’ powers to address tactically. Each threat will have its own unique dimensions that can be countered by the superheroes. They will be scaled on three different powers:

- Division: how effective the disinformation causes polarization
- Virulence: how effective a threat is at spreading across information networks
- Resources: how backed by different organizations that purposefully move the threat forward

For example, a grassroots call around fairly harmless offensive rhetoric might be low on its divisive qualities, but high on how effective a threat is at spreading across information networks. In contrast, a government backed disinformation lower on virulence due to its targeted nature, but heavy on resources. The specifics of both the variances in threats and in strategies to mitigate disinformation will be developed through interviews with disinformation experts.

The mechanics of the game will reinforce learning goals. The player operates the game in a turn-based strategic format, tracking the threats status and strategy while developing plans of action across their superhero team. For example, a threat might have enough resources to create thousands of additional bot accounts to further spread across new social networks. The player can in turn decide how to use their agents to mitigate its next move. Each agent choice the player has contains a specific cost, which means they cannot use all strategies every turn and must choose carefully. This will reinforce player choice, strategic thinking, and a careful analysis of both disinformation threats as well as strategies to counter those threats.

The purpose of the game is to not only help students understand different types of disinformation (through the villains of the game), but also to motivate them to learn more beyond the game. Capitalizing on a familiar genre (superheroes) will help lower the barrier of entry and hopefully make students more engaged in the learning process. By using their superhero team's powers across villains, they will also gain repeated exposure and personal familiarity with different capacities across institutional stakeholders. Thus, this will meet the second goal of addressing an understanding of what solutions are available to mitigate disinformation.

## **B. Process**

Game development requires multiple stages, with the majority of work focused on testing the mechanics and content to ensure a quality product. The initial phase includes the concept stage, pre-production stage, and prototyping stage, which is followed by the production of the game (Novak, 2011).

The Wilson Center uses an iterative design process, ensuring the end product is a viable learning tool which has in turn led to successful games in terms of both distribution and learning outcomes. First, the content of the game is established -- in this case, case studies and interviews with experts at and beyond the Wilson Center in disinformation. Then, bringing in a focus group of students, the game mechanics are tested and refined several times based on player reactions. Key throughout this is to evaluate everything from the user interface (is it easy to navigate?), the game mechanics, accessibility of content, and overall experience (do students learn from playing this game). This ensures the game is engaging, accessible, and that the game content and mechanics work together to facilitate the learning goals.

### **Year One**

During year one, game development and prototype testing, the primary resources needed are time, expertise (both game development and disinformation), financial resources to develop the game and educational materials, technology development (provided through Filament games), and stakeholders for feedback and testing. Supplies needed are limited to a qualitative analysis software, Atlas.Ti, which will support aggregation of information and feedback throughout all testing phases, and communication software, such as email and Zoom. Potentially, IRB approval may be needed as part of the prototype phase; the Smithsonian Institution's Office of Sponsored Projects will be consulted.



1. **Research (Months 1-5):** Broken into parts: First, content curation. Tapping its extensive network of disinformation experts through interviews and data gathering to build out assumptions on case examples of successful disinformation attacks and mitigation tactics for disinformation at the institutional level. The Serious Games Initiative will use this research to inform the mechanics of the game, taking into consideration how this content can be made accessible and easily understood by students. Second, targeted interviews with educators, reviewing content and accessibility of technology for classroom usage. The disinformation experts and educators will be invited to join an advisory board, which will support “peer-review” of the game throughout the process (e.g. provide feedback on the design and assumptions). Third, the Serious Games Initiative will also research necessary technological requirements that will inform distribution of the game within ESD 101 (such as preferred platforms).
2. **Planning (Month 4-5):** Game design will begin with Filament Games. The teams will explore the audience, learning outcomes, game goals, technology, and research and develop a plan of action (“game design document”) that addresses these needs. The game design document will be the blueprint, and will include wireframes – a technical outline – that demonstrate the game mechanics, content, feedback, and user experience. The look and feel (the visual style) of the game will also be developed, including visual mockups of the game and characters. Throughout, accessibility to audiences will be evaluated while still maintaining the depth and nuance required to understand disinformation. Together, we will begin to brainstorm ideas for the overall creative concept, narrative, and possible game mechanics. The outcome will be a workplan for proceeding to the development stage.
3. **Game Development (Months 6-12):** During this stage, the Serious Games Initiative will work iteratively with Filament Games to develop the game prototype and with an advisory board of disinformation experts and educators for the supportive educational material. Stakeholder testing will be used to refine the game throughout the process. The final output is a game prototype, which will be used in facilitated testing with educators.
4. **Educational Documentation Development (9-12):** Working with the advisory board, particularly educators, the Serious Games Initiative will develop supportive educational materials for classroom implementation.

#### *Year Two: Game evaluation and distribution*

During year two, game evaluation and distribution, the primary resources needed are IRB approval due to interaction with a vulnerable population, support and cooperation from ESD 101 to engage classrooms, and travel or virtual engagement with classrooms. Further, for distribution, the Wilson Center will develop a communication and outreach plan that will include resources to help facilitate distribution in ESD 101 and beyond.

1. **Staggered Classroom Beta Testing (Months 12-16):** The game prototype will be tested across sixteen classrooms in ESD 101 starting at the second year of game development. This means that classrooms will sign up to use the game in selective waves, with enough time for further evaluation and development between each wave. Feedback from each classroom will be used to refine the game and educational materials. The game will be evaluated in terms of both design and accessibility to the age group, as well as in terms of learning outcomes (see C. Monitoring and Evaluation Plan). While we have planned for travel to Washington State,

it is a possibility that these plans may be adapted due to potential COVID restrictions. In this case, the sessions will be held virtually.

2. **Game Refinement (Month 17):** Before digital distribution, a final test on the game and material will be conducted to address any bugs or other errors.
3. **Digital Distribution through OER (Months 18+):** Working with the Washington Office of Superintendent of Public Instruction, the game and supportive materials will be distributed online through the Wilson Center's website and linked to through the OER database. This means the game will be free to all students within ESD 101, as well as the broader Washington State and the nation. A communication plan that includes engagement with educators, local journalists, and other mediums as recommended by educators will be implemented at this time to ensure broadest reach.

### **C. Monitoring and Evaluation Plan**

Success in serious games can be measured in several concrete ways. For example, the number of plays is one metric, or how many people played the game. In this case, a goal would be to have a certain number of classrooms play the game, or a percentage of the target population. This is an achievable goal; with past products produced by the Wilson Center, such as Fiscal Ship and Budget Hero, we have had nearly three million plays worldwide. As this focuses on a local intervention within ESD 101, a goal would be to distribute the game and track percentage of plays during the final phases of the project through mediums like Google Analytics (e.g. 100-300 plays within the first month; a 1,000 before the end of the school year).

However, this metric does little to measure the impact of the intervention and is not an accurate measure of the desired outcomes, such as learning or motivation to learn. The Wilson Center and the BRAVA Foundation of Brazil created the award-winning serious game Cities in Play (Cidade em Jogo) in 2017 to foster civic engagement at a local level. In a survey BRAVA conducted to help measure the game's impact, 67 percent of students who played the game said they were more interested in politics, 69 percent said they were more willing to monitor the government, and 67 percent said they were more confident in their ability to influence public policies after playing. Games can not only motivate students to learn, but also motivate beyond the game experience to be a gateway for future engagement.

Therefore, one way to measure success is to focus on learning outcomes. During the testing phase of the game, and following distribution of the game, the objective would be to have over 65% of the players being able to demonstrate having learned about disinformation, its impacts, and processes of how to mitigate disinformation at a macro-level. A secondary measure would be to assess whether students feel there is more that can be done about disinformation, as a way to measure efficacy. In addition, we will track how "sticky" the learning is by distributing a survey two weeks post intervention as a way to map to longitudinal learning (Pfirman et al., 2015). In the case of the latter, evidence suggests that game players are able to retain more information through gameplay than comparable other exercises, such as reading an article.

For all evaluation that uses human subjects and an emphasis on personal attitudes, beliefs, or learning outcomes, the research protocols will be reviewed by the International Review Board under the Smithsonian Institution's Office of Sponsored Projects. This process can take a month and a half for review, but given that this game is serving a minority population it is a step that must be addressed before proceeding. Dr. Newbury has engaged the IRB before for similar research programs on game development and games research, and these are typically assessed as

a low-risk situations that nevertheless require parental consent. All protocols to address school-based programming will be navigated during the same period. See Appendix G also for the Human Subjects Research Compliance Determination Form from DHS.

#### **For the prototype:**

Testing of the prototype will take the form of one-on-one interviews or focus group testing of both educators and disinformation experts, relying on their professional expertise. Both of these methods are exploratory qualitative methods that allow rich feedback on the game prototype. Depending on the stage of the prototype, the process navigates the participant through the art, user interface, and content of the game. An example of questions are included in Appendix F. The Smithsonian Institute's Office of Sponsored Projects will be consulted to ensure all IRB protocols are being met, however, unless the sample is expanded to students we will most likely be relying on the professional opinion of educators/disinformation experts which does not traditionally fall under the need for an IRB-approved protocol.

#### **For classroom testing:**

A combination of survey design, field observation and debrief will be used to assess the game within the classroom. This stage typically takes place in-person, however, if COVID hits, may need to be adjusted for a virtual engagement with the classroom.

Prior to the game play, students will receive instruction on disinformation that primes them for the activity. After the game play, students will be debriefed, with a particular lens towards understanding what the play experience was like for students, what stuck with them about the experience, and assessing attitudinal change.

For the survey design, a reliable method is to use a pre- and post-game survey in order to assess learning outcomes (c.f. Pfirman et al., 2015). Prior to the game, this may include capturing information about how much the students know about disinformation, identifying disinformation, or ways to mitigate disinformation as mapped to the goals. A similar survey can be used after the game play, to assess whether students gained knowledge after the game intervention. Two weeks after the game play, we will also ask educators to distribute a short survey to those students who participated to map longitudinal learning, with similar questions to the pre- and post-survey.

Field observation will triangulate the quantitative analysis of the surveys, focusing on observing students and how they engage with the game during play. This is helpful for capturing reactions throughout the game experience and content, as well as mapping technologically if there are any issues with navigating the game. It will improve the quality of the game by allowing us to have more data on the actual play experience, while the other two methods allow for a pre- and post-analysis.

### **3. Organization(s) and Key Personnel**

Chartered by Congress in 1968, **the Wilson Center** is the nation's key non-partisan policy forum for tackling global issues and the world's #1 regional studies think tank. As an international convening organization with one of the first programs devoted to the creation of educational games, the Wilson Center is uniquely positioned to develop a game to increase understanding on ocean plastics and policy solutions.

**The Serious Games Initiative (SGI)** was founded with one goal: to use games to engage the broader public in policy discourse. It is one thing to read about the potential impact of policy solutions – it is another to live it. Since its founding, SGI has been a leader in the field of serious games. Under the umbrella of the Science and Technology Innovation Program, SGI is using games as a dynamic technology to communicate cutting edge research at the Wilson Center and beyond. Past games include Budget Hero and the Fiscal Ship, games about the federal budget which have received over 3 million plays worldwide; Cards Against Calamity, a board game about coastal resilience; and a forthcoming game, The Plastic Pipeline, funded in-part by the Luce Foundation and National Geographic Society on ocean plastics.

**Dr. Elizabeth M. H. Newbury** is the Director of the Wilson Center's **Serious Games Initiative (SGI)**, which was founded to engage the broader public in policy discourse. Newbury earned her doctorate in Communication from Cornell University, specializing in new media and game studies. She leverages this expertise to develop games for civic education and to bridge the gap between policy education and policy research for a wide range of audiences, from students to Congressional staff and beyond. Among other endeavors, she leads the Federal Games Guild, an informal working group of federal agencies that leverage game-based learning. She has presented research on the impacts of game-based learning at SXSW:Edu, Games for Change, and more.

**Sophie Goguichvili** is a Program Associate with the Science Technology and Innovation Program, working on science education, space, cybersecurity, 5G, and artificial intelligence policy. Previously, she interned in the Office of the Director, President, and CEO at the Wilson Center, where she researched and drafted memoranda on contemporary topics in international affairs and national security. She received her BA in International Studies from the School of International Service at American University.

Founded in 2005, **Filament Games** is a full-service digital studio that specializes in learning game development on a for-hire basis. They've completed over 200 projects since our founding and have worked with some of the biggest names in education – folks like Amazon, Scholastic, Smithsonian, Oculus, National Geographic, PBS, Television Ontario (TVO), McGraw-Hill, and even the U.S. Department of Education.

**Northeast Washington Education Service District 101** serves 59 school districts in Washington State. NEWESD 101 is responsible for the seven northeastern counties of the state, providing cooperative services in Adams, Ferry, Lincoln, Pend Oreille, Spokane, Stevens and Whitman counties. NEWESD 101 is the state's largest ESD in the number of districts served, counties served and geographic region served. An Educational Service District, or ESD, is a regional education unit in the U.S. state of Washington. Organizationally different from a school district, a single ESD in Washington serves dozens of school districts. ESDs are established to allow school districts to work, plan, and buy equipment collectively.

**Tammie Schrader** is the regional computer science and science coordinator for the Northeast Washington Education Service District 101. Prior to this, Schrader taught science and career and technical education classes to middle school students in Cheney, Washington, for 15 years. She also teaches science methods classes at Whitworth University and Gonzaga University. Schrader contributed on a National Science Foundation grant with Filament Games working on implementing educational video games in science classes and spoke at the White House Game

Jam in 2014. Schrader is a National Board certified teacher and served as a U.S. Department of Education Fellow in 2008–2009.

#### 4. Sustainability

The game will be publicly available to all classrooms within Washington State, not just ESD 101, by its inclusion in the OER and publication on the Wilson Center website. Once developed, the game will need minimal maintenance to remain up-to-date as it will be designed as a closed system. If additional funding is needed for game maintenance, funding from previous sources, such as foundational grants or industry leaders, may be used to help support this through the Wilson Center's development plan. Based on past experience, this would be minimal input and could be covered by operating costs of the program.

The mission of the Serious Games Initiative at the Wilson Center is to make public policy fun and accessible to the nation. Once a product has been developed and posted to the Wilson Center website, it is likely that it will receive national attention. Wilson Center staff and fellows disinformation and science portfolios are regularly interviewed by and/or write for many national and international media organizations, including The New York Times, NPR, the LA Times, Washington Post, Foreign Policy, CSPAN, USA Today, The Economist, Scientific American, Nature, Chronicles of Higher Education, E&E News, and the Atlantic. The Wilson Center also has an in-house studio, dedicated podcasts, and a global social media presence. As noted previously, our past games have reached millions worldwide, and we would hope to continue that tradition after serving the students of ESD 101.

#### 5. Budget Detail and Narrative

Budget Category	Federal Request
Personnel	\$ 267,679
Fringe Benefits	\$ 69,163
Travel	\$ 3,746
Supplies	\$ 1,120
Contractual	\$300,000
Other	\$800
<i>Total Direct Costs</i>	\$ 649,508
Indirect Costs (16.73%) (see Appendix E)	\$107,492
<b>TOTAL PROJECT COSTS</b>	<b>\$ 750,000</b>



**Personnel:**

**Director of the Serious Games Initiative, Elizabeth Newbury:** Leadership of overall project, devoting 56% time for two years, approx. \$107,313. Dr. Newbury is particularly suited to this form of project management, which will require day-to-day oversight including project planning, timeline assessment, recruitment, and coordination across the Wilson Center, Filament Games, and ESD 101. In addition, she will be the PI on IRB documentation and primarily responsible for the development and implementation of all research protocols, as well as the development of educational materials.

**Program Associate, Sophie Goguichvili:** Will support the research component of the project in the first year, for 60% time at \$45,841. This will entail not only the synthesis of existing case studies that can be used to inform the content of the game but supporting the initial iterative testing of the game.

**Program Assistant:** Not hired. Calculated at a year and a half of full-time support for administrative tasks for 50% time at \$86,090 using the GS-7 Step 5 payscale. Specifically will help support efforts related to the game, specifically supporting the Director of the Serious Games Initiative's outreach and project management, managing the budget, and engagement across stakeholders.

**Interns:** Not hired. The Wilson Center's policy is to only offer paid internships, with the current rate being \$16.51 per hour with a potential 5% COLA increase per year. Current funding streams will cover intern support for the first year, but we anticipate needing an intern to support research transcription and support of developing all products. Intern will charge a total of \$28,436.

**Fringe Benefits:** Calculated at 28% for all staff at the Wilson Center, and 7.65% for interns. The total fringe benefits for the above staff and intern would be \$69,163.

**Travel:** Calculated as 2 people, going to Spokane, WA (largest city in the region) and staying for one week under the GSA per diem rate, e.g. \$114 for hotel and \$74 for meals and incidentals. Total travel costs would be \$3,746

**Supplies:** Access to Atlas.TI, a qualitative research software that will be used to analyze interviews and field notes from classroom testing. Cloud service is \$28 per month per user, calculated here for 24 months for two users. Total supplies costs would be \$1,120.

**Contractual:** The program has identified working with Filament Games to complete the game concept, with funding estimate of \$300,000. This includes X number hours of labor, and the completion of a digital game at the end of this grant award system.

**Other:** Given that we are asking for educators to volunteer their classrooms, we would obligate \$50 per classroom to incentivize participation. This would go directly to the sixteen classrooms that we would sample for testing the prototype. Total other direct costs would be \$800.

May 12, 2022

Dr. Elizabeth M. H. Newbury  
One Woodrow Wilson Center Plaza  
1300 Pennsylvania Ave NW  
Washington, D.C. 20004

Dear Dr. Newbury,


This letter is to express support for the Wilson Center's Serious Games Initiative in developing a digital game on disinformation that can be used within middle school and early high school students in the NorthEast Washington Educational Service District 101 (NEWESD 101) region. NEWESD 101 serves seven counties in the northeast portion of Washington state, and we believe in preparing all our students for success in the 21st century. Unfortunately, this means preparing students to be savvy media consumers and prepare them against disinformation.

It is our experience that educational games create a positive learning experience for our students, causing them to be excited to learn and dive into complex concepts that they may otherwise be hesitant to engage with. With the support of educators, we have actively been working to help create more of these resources for our community and are delighted that one of the leading programs on educational games chose to work with us.

This game, which puts students as the heroes fighting against disinformation, hits on several needs of our district: a digital distribution and a fun way of introducing how to combat disinformation. We are excited that it not only helps students identify tactics used in disinformation to target students, but also illustrates ways that we could all be working together to fight disinformation, is great.

We appreciate the opportunity to collaborate on this project around such a vital topic, and wish the Wilson Center the best of success in this application process.

Sincerely,



Michael Dunn, Ed.D.  
Superintendent