"All's Well that Sims Well: Incorporating the Community of Inquiry Framework in an Asynchronous Graduate Level Security Studies Simulation"

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This paper provides a comprehensive model for incorporating simulations into an asynchronous graduate-level course in Security Studies. Specifically, we ask whether simulations can effectively increase student engagement in a fully online course environment. We suggest that by using innovative technology and adopting simulations created by the Council on Foreign Relations (CFR), simulations can increase student engagement holistically through the Community of Inquiry model, focusing on the full "educational experience." By applying the Community of Inquiry to the Security Studies digital environment, this paper provides the method necessary to increase the three facets of the holistic education experience: Cognitive Presence, Social Presence, and Teaching Presence. It has often been noted that asynchronous courses lack effective means to immerse and engage students fully. Still, we demonstrate that with slight adjustments to CFR simulations, using innovative technologies can bridge the gap between distance learning and experiential activities. To demonstrate, we use CFR's Mini Simulation, "Should the United States Ban TikTok to Preserve National Security?" We provide the learning objectives, student reflections, and state-of-the-art technological instructional tools for running simulations effectively in an asynchronous environment.

Keywords:
Games and Simulations; Council on Foreign Relations; Security Studies; TikTok; Asynchronous Learning

9441 Word Count

Introduction

Even before the COVID-19 pandemic, but certainly as a result afterward, there has been increased academic attention given to online classroom environments, particularly asynchronous courses. Of particular interest within asynchronous courses is how engaged students are with the coursework, the professor, and their peers. The idea is that the less engaged students are, the poorer their performance and understanding of course material will be. Thus, the relationship between asynchronous learning and student engagement is a topic of great importance as it could not only be a predictor of performance but also of deep learning. Importantly, this unique relationship also reflects overall institutional effectiveness as well, which is measured by student persistence, retention, and graduation rates. Before delving into the direct purpose of the present paper, it is necessary to define asynchronous learning. Typically, when referring to distance education or online learning, there are two main forms: synchronous and asynchronous. Synchronous resembles a traditional classroom experience, giving both students and instructors the opportunity for real-time, live interactions (Pilotti et al. 2017, 145), including lectures, assignments, and discussion, all occurring simultaneously but in an online learning environment captured using Teams/Zoom, etc.

Asynchronous classrooms allow students and instructors to create and complete work at their own convenience (Pilotti et al. 2017, 145), and they traditionally lack any real-time, live, face-to-face interaction. Although coursework is flexible for student convenience, due dates are provided and other parameters established, allowing for student agency in completing the work in a timely fashion. Further, it is argued that asynchronous interaction allows students more time to engage deeply and reflect thoroughly on the course material, improving higher-order thinking (Lu, Pange, and Shadiev, 2023, 9748). The lack of interaction with one's peers and the faculty during a course has created questions on how this potentially impacts student engagement (Pilotti et al.

2017, 145). Other limitations persist with asynchronous learning, including delayed interactions with classmates and professors, often causing a sense of isolation for students (Lu, Pange, and Shadiev 2023, 9748). Together, it has been argued that "Such issues have a direct and negative effect on learning outcomes" (Lu, Pange, and Shadiev, 2023, 9748). Thus, a problem presents itself: how can asynchronous courses increase student engagement, making learning resemble more traditional classrooms, achieving higher-order thinking, and achieving learning outcomes? To address this problem, the present study asks, "Do simulations effectively increase student engagement in a fully online, asynchronous classroom environment?"

This paper suggests that incorporating simulations into asynchronous courses increases student engagement. To specifically address this position, this paper provides a comprehensive model for incorporating simulations into a graduate-level Introduction to Security Studies course. We suggest that by using an innovative combination of educational tools, including Yellowdig, Articulate Rise, and Canva, in conjunction with the D2L learning management system, adopting a simulation created by the Council on Foreign Relations (CFR) can increase student engagement in the graduate asynchronous learning space. We demonstrate the theory behind our argument by relying on the Community of Inquiry (CoI) model, which focuses on a holistic approach to the educational experience, including cognitive, social, and teaching presence. This paper argues that simulations using state-of-the-art instructional design tools and practices increase student engagement in these three components of the CoI model.

To demonstrate that asynchronous learning can offer equal, if not better, engagement than synchronous online courses or traditional in-person classes, we have adjusted and applied the Council on Foreign Relations (CFR) Mini Simulation, "Should the United States Ban TikTok to Preserve National Security?" to an asynchronous graduate-level security studies course. We

achieve the learning objectives through active discussions, student reflections, and state-of-the-art technological instructional tools for running immersive simulations effectively in an asynchronous environment. This paper proceeds in four main sections. The first section is a literature review highlighting our theoretical backdrop of the Community of Inquiry and also a review of the relationship between simulations and student learning and engagement. Next, we provide the specific case-study and design of the course, including course specifics, context, and setting, moving into the design of the simulation and associated technological tools incorporated for the exercise to succeed. Thirdly, this paper provides discussions and results from the data obtained from the course and simulations. Finally, this paper ends with a conclusion, limitations, implications for future teaching and research, and lessons learned. To begin, we turn to understanding our theoretical backdrop, the Community of Inquiry model.

Review of Literature

This literature review serves two purposes. The first is to set up our theoretical backdrop, which is the Community of Inquiry (CoI). The second is to contextualize this paper within the pedagogical literature of games and simulations. To implement an innovative instructional strategy, such as a role-based immersive simulation, we utilize a unique combination of educational technologies and employ a well-established learning model to provide guide rails that ensure pedagogy and learning science drive the learning design. In this project, the CoI framework was chosen by the researchers to serve this critical role. Recent studies confirm that not only does the framework support deep learning through its three components -- cognitive presence, social presence, and teaching presence (Richardson, Maeda, Lv, and Caskurlu 2017) -- but it also promotes active engagement with the content, other students and the instructor. But what exactly is the CoI framework?

The CoI has been described as a "collaborative constructivist model on online learning processes that can inform both research and practice" (Richardson et al., 2012, 98). CoI theoretical foundations lean on John Dewey's core educational philosophy of inquiry as a social activity and the importance of a sense of community as essential to learners' construction and confirmation of meaning (Swan, Garrison, and Richardson 2009). Dewey's influence can be seen in the center of the CoI, which has three core concepts, or "presences," overlapping to provide an ideal learning experience. In the present context, CoI assumes that effective online learning requires the development of a learning community that supports the meaningful inquiry and deep learning that is the hallmark of higher education (Dewey 1938).

The concept of a "community of inquiry" was explained by Matthew Lipman, a leading educational theorist, who asserted, "The community of inquiry is perhaps the most promising methodology for the encouragement of that fusion of critical and creative cognitive processing known as higher-order thinking" (1991, 204). Composed of the three fundamental elements of social presence, cognitive presence, and teaching presence, the CoI framework provides a structure and common vernacular for the examination, design, and teaching of online learning experiences. In 2000, Garrison, Anderson, and Archer illustrated CoI as a theoretical framework for assessing and crafting dynamic interactions in a highly designed online learning experience. They illustrated the three presences as a Venn diagram with recognizable intersections (see Figure 1).

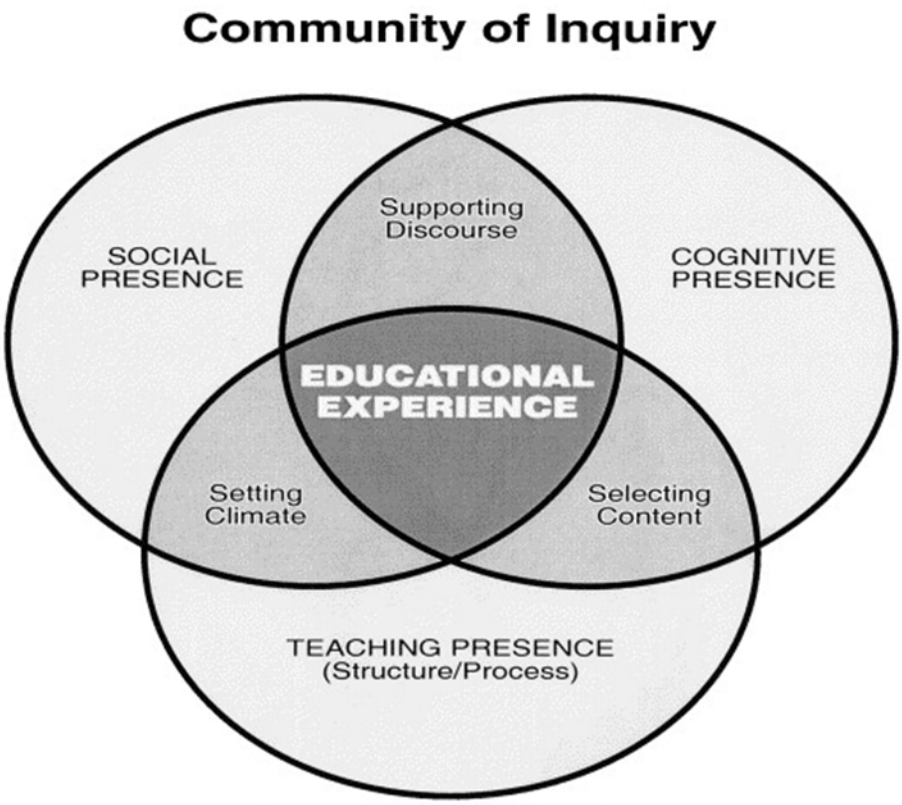

Figure 1: CoI model (Garrison et al., 2000,88).

In the last 20-plus years, the CoI framework has become widely used by researchers and practitioners as a tool to evaluate online learning interactions (Chan et al,. 2021; Martin et al. 2020; Lim and Anderson, 2022) and inform the design of online higher education courses (Hasani, LM, HB Santosos, and K Junus.2022; Ngubane-Mokiwa and Khoza, 2022; Goda 2024). Instructional Designers and instructors ought to employ the CoI framework to guide the creation of online learning experiences that promote deep learning (Rahmatalla, Harun, and Abuhassna 2024) especially when applied to games and simulations. As previously mentioned, the three elements of CoI are used to describe sets of activities and behaviors that take place within an effective online learning experience. Garrison, Anderson, and Archer, (2000) describe them as follows: Cognitive presence is "taken to mean the extent to which the participants in any configuration of a community of inquiry are able to construct meaning through sustained communication" (89). Social presence is "defined as the ability of participants in the Community of Inquiry to project their personal

characteristics into the community, thereby presenting themselves to the other participants as “real people." (89). Finally, teaching presence refers to the design and facilitation of the educational experience for people (89). As Figure 1 illustrates, these three elements interact with one another to create the learning experience. This paper’s third section demonstrates the connection between the components of the asynchronous simulation and the three presences and instructional design principles of the CoI.

The CoI was intentionally developed as a generic framework to guide development across disciplines. However, the effectiveness across disciplines based on instructional design decisions had not been well researched. One study does stand out, however. Richardson et al., (2024) conducted case-based research across disciplines and found the CoI framework could indeed be applied across disciplines. Richardson et al., further asserted that instructional strategies investigated in one discipline were transferrable to others that embody the CoI (2024.) As such, we apply the CoI to a graduate-level security studies course in an asynchronous environment, as described more in detail below. To guide the design, several CoI principles were utilized. Garrison (2019) references seven instructional design principles focusing on the three subcategories of teaching practice: design, direct instruction, and facilitation. These in turn, support the elements of social and cognitive presence. These principles guide the instructional designers, and the instructor of the simulation described in this article.

The seven principles do not have to be considered in sequential order. They are presented numerically for ease of reference within the paper, borrowing from Garrison (2019). The first principle, open communication and trust, calls for establishing a safe space in which students feel comfortable expressing their opinions and ideas openly and without judgment. The second principle, critical reflection and discourse, leads course designers to encourage learners to analyze,

question, and challenge their own assumptions and perspectives through thoughtful discussion. The third guides the deliberate design to foster a sense of community throughout the course. Design principle four, support purposeful inquiry, guides the designer and instructor to actively engage learners in purposeful inquiry by presenting relevant questions, problems, and scenarios to stimulate critical thinking. The fifth principle focuses on enabling and supporting students to sustain collaboration throughout the learning experience. Principle number six, inquiry resolution, suggests guiding discussions towards meaningful conclusions and synthesis of ideas, where learners can articulate a shared understanding. The final principle, assessment congruence with learning outcomes, calls for assessments that directly reflect the intended learning processes and outcomes within the CoI. Examples of how these principles guided the design of elements of the present project are presented further below. Before proceeding to that discussion however, this paper briefly contextualizes the current project within the larger literature of games and simulations.

The academic literature is rife with correlating student success with games and simulations (Asal 2005; Krain and Shadle 2006; Chad 2010; Baranowski and Weir 2015). These examples of experiential learning span the entire spectrum of political science education and curriculum, from 15-minute sections of a course focusing on climate change (Brown 2018) to course-long simulations focusing on the international relations of COVID-19 (Fazal and Sanchez 2023) and everything in between especially in dealing with theory and conflict (Sears 2018; Frank and Genauer 2019). Much of this research focuses on student engagement and student learning outcomes, most of them aligning with Shanks and Zhang's statement, that, "Our findings demonstrate the success of simulations, both in terms of subjective student engagement, as well as in terms of objective student academic performances" (2024, 293). Directly relating to the current

paper and simulation, Whyte (2021), argues that "active learning methods of teaching content to social science students is not only effective over and above lecturing, but can also dramatically simplify the task of introducing political science students to cyber issues" (215). Whyte provides several mini-games to teach cybersecurity within the international relations classroom first seeking to "convey security concepts…in a way that emphasizes learning via a discursive debriefing process….Second, they intersect learning about IR and foreign policy with relevant discussion of cyber conflict dynamics" (Whyte 2021, 216). These points align precisely with the present research and course design, as will be discussed further below. Whyte's conclusion mirrors our project, "our experience is that these games clearly lead to more engaged discussion among students and an improved student ability to articulate the nature of insecurity in the age of the Internet" (Whyte 2021, 223). To reinforce Whyte's conclusions, Arora (2019), emphasizes that non-technical cybersecurity education, when paired with an effective curriculum, can foster advanced critical thinking and deep learning, equipping students with valuable employability skills. The author particularly advocates for the incorporation of mini-games and simulations in non-technical cyber education. All of this is in line with our employment of the CoI framework for designing simulations. However, the nature of the current paper is not on simulations generally but rather on asynchronous online simulations. Therefore, the remaining review focuses on this specific sub-topic of simulations and games.

There is little research on how simulations achieve student success in the online environment, and from that genre, most of the literature focuses on synchronous online, or even hybrid simulations (Da Vinha 2021), with far less focusing on asynchronous teaching and learning. For the synchronous environment, a few seminal articles require attention. Of course, The COVID-19 pandemic provided ample space for simulations to be moved into the online environment. One

of these conducted a WTO simulation, focusing on environmental aspects of international trade (Bratt et al. 2023, 253). The simulation was conducted remotely, and after the pre-simulation workup, the simulation was held online for two consecutive days, focusing on setting the agenda on day one and debating and voting on draft resolutions on day two (2023, 255). The authors note that the students self-assess as being underprepared for the simulation, notably because it was put together quickly because of the pressure of the pandemic, and thus, had some limitations in its success (Bratt et al. 2023). However, the simulation also demonstrated that online simulations work and help achieve student engagement and learning outcomes in a difficult setting (Bratt et al., 2023). Although lacking substantial evidence for how it worked, the authors were optimistic about future iterations, and so were the students.

Schiff demonstrates that online simulations and teaching, in general, can be effective if using a precise organizational framework template known as the WRIS system (watch, read, interact, and submit). The format demands that students first watch a weekly module by the instructor explaining relevant material; next, the students read the background theoretical materials underpinning the module lessons and, follow that by discussions and debate (2019). Finally, students submit an assignment that encompasses the main themes for the module (Schiff 2019, 2). The WRIS system was utilized in an online environment where the class was built around simulations focusing on conflict resolution for the civil conflict in South Sudan as well as a second simulation focusing on conflict resolution and the war in Syria (Schiff 2019, 5). Schiff finds that "Online courses using a consistent and progressive framework can be equally as engaging and pedagogically sound as their face-to-face counterparts" (2019, 11). The author notes that offering online simulations through the WRIS system achieves effective engagement with progressive

learning and creates an active learning opportunity that helps enhance students' comprehension (Schiff 2019, 12).

Concerning asynchronous simulations, as mentioned above, there is far less attention in the literature, a gap this paper hopes to fill. There are some pieces that discuss active learning and other assignments that we believe fit within the CoI framework and lend credibility to why simulations may also work accordingly. Heffernan, Murphy, and Yearwood focus on an active learning assignment, though not fully a game or simulation, that works to increase student success in an asynchronous environment. In this research, the authors developed and explained an asynchronous peer-review writing assignment and helped create an alternative to typical classroom engagement through a discussion board. They argue this type of assignment was more dynamic than critical reading reflections, forums, and other asynchronous learning activities because it "encourages students to actively learn by contributing to one another's learning journeys," providing "opportunities for students to consider different viewpoints, refine and clarify different positions, and construct more finetuned arguments in ways that are hard to replicate in other assignments" (Heffernan, Murphy, and Yearwood 2022, 546).

Roberts (2021) discusses how our own theoretical approach, the CoI, can be achieved in online environments. Roberts writes that the CoI is a necessary element of both forms of online education and writes, "The goal for all of my courses is to build a community of peers who are actively listening to one another…and the essence of the cognitive presence in classes—virtual or otherwise" (Roberts 2021, 183) The author notes that building rapport with the students is perhaps the most important element of the CoI. Roberts writes, "Rapport is about creating an environment in which students and faculty interact to achieve common goals" (2021, 183). To make sure the three elements of CoI were captured, Roberts made sure to comment extensively on each student's

weekly writings, as well as on their discussion posts (2021, 185). He notes, "This served both classroom-social and cognitive-presence obligations" (Roberts 2021, 185). The author also highlights that adding optional live video-conferencing for the duration of the course improves these aspects of CoI.

We agree with the author. However, we note that rather than solely relying on commenting on assignments and hosting optional live class sessions online, adding simulations as well as multiple interactions in role-playing scenarios better fulfills the student-centered approach required by CoI. Indeed, Roberts notes this aspect himself: "Maintaining that cognitive presence online requires adaptability and a student-centric approach to building a community of scholars engaged in thoughtful and meaningful dialogue" (2021, 185). The simulation we use and discuss below forces the students to engage in deep learning of the course material in order to produce a policy paper addressing the simulation guidelines and mandates continual speeches, dialogue, and debate with and between students as well as the "President," who in this case was the instructor of record. Thus, the communication involved with the CoI aspects of the educational experience was produced in the self-contained simulation module, and by a simulation's nature, exposed students, at a deep level, to social, cognitive, and teaching presence. Now that the review has been completed, this paper proceeds to the case-study describing how the CoI framework was implemented using a simulation in an asynchronous graduate course in security studies.

Case-Study Analysis: Security Studies and the CoI Framework

The CFR simulation chosen for this course aligns with the literature on what a simulation needs in order to succeed. In the literature, it is often noted that a simulation needs to resemble the real world as closely as possible. For instance, Kempston and Thomas note that by mimicking the real world, "the intrinsic nature of the concept [realia]—the utilization of objects from the real

world to facilitate learning in the classroom—makes it a particularly relevant concept to incorporate into simulation-development strategies" (2021, 253). The CFR mini-simulation we implement in this asynchronous graduate course in security studies is entitled "Should the United States Ban TikTok to Preserve National Security?"

It was chosen for several reasons. First, social media warfare and information warfare are already one of two modules offered in the course that focus on the information and cyber environments. Second, the professor of record and one of the co-authors of the present study is an expert scholar in information warfare and influence operations, and thus, it was a natural fit for the instructor's knowledge set to be able to run a simulation in an asynchronous course. Thirdly, the simulation fits with the literature in being realia, matching reality as closely as possible. During the time of the course and up through the writing of this article, there have been many news stories and commentary written concerning TikTok, national security, and constitutional freedoms. For all these reasons, the simulation was chosen. It was, however, modified and implemented with various enhancements and alterations to fit asynchronous learning—described further below.

The course fits within an asynchronous graduate program in intelligence and security studies. The course student learning objectives (CSLO) are multiple, but for the purposes of this paper, the ones aligning with the simulation are 1) describe major concepts, questions, and interests that comprise the field of security studies; 2) analyze emerging trends in security studies; 3) assess global threats to US national security. Each of these CSLOs are captured in the simulation prep, the additional readings provided by CFR and the instructor of record, as well as the policy and reflection papers for the simulation itself. These fit the best practices for using practical simulations that mimic reality (Kempston and Thomas 2021). Quoting Petternger, Kempston and Thomas note, "In doing so, the pseudo-reality creates 'situations in which students are more actively engaged

with the learning process'" (2021, 258). As mentioned above, the simulation had to be altered and implemented into an asynchronous course design while maintaining graduate-level rigor. The following describes how this was achieved.

Simulation Design Process

The interconnectedness of the global economy and geopolitical landscape increasingly ties US interests to the actions and interests of others, highlighting the need for effective global affairs education. The course faculty and instructional designers sought to address this by integrating asynchronous learning methods that provided flexibility while maintaining rigorous student engagement within an online environment. To achieve this, they turned to the Council on Foreign Relations (CFR) Education, an organization dedicated to bridging the global literacy gap through accessible, accurate, and authoritative resources (Council on Foreign Relations, 2024). CFR Education equips students with the knowledge, skills, and perspectives necessary to tackle complex global issues. Among its offerings, CFR Education provides guidance and materials for creating simulations. These simulations enhance critical thinking, persuasive communication, and collaboration skills by immersing students in decision-making roles.

Recognizing the importance of providing graduate-level learners with a flexible yet interactive educational experience, course faculty have collaborated with the campus online instructional design team. Together, they have adapted a live simulation into an asynchronous format, enabling students to engage deeply with global affairs and foreign policy challenges on their own schedules. This approach preserves the sense of presence, intentionality, and lively engagement found in traditional synchronous classrooms while accommodating the diverse needs of online learners, fitting within the CoI framework. The asynchronous simulation design is heavily inspired by the CFR Education simulation guidelines, developed to help instructors

integrate real-world re-enactments of hypothetical, historical, and current event scenarios (Council on Foreign Relations, 2024). These scenarios guide learners through the decision-making processes of U.S. policymakers addressing issues in international relations. Our simulation specifically focuses on the U.S. National Security Council's policy decision-making process when faced with the social media platform TikTok's threat to U.S. security through its ties to the Chinese-owned company ByteDance.

Understanding that creating a deep learning experience is essential for fostering meaningful and lasting understanding, particularly in the context of global affairs education, our goal has been to create an asynchronous, online experience that facilitates learning beyond surface-level memorization of facts and focused on critical thinking, problem-solving, and the ability to apply knowledge in real-world scenarios. By generating a deep learning experience, educators empower students to become informed, thoughtful, and proactive participants in a globally connected world. (Kovač, 2023). To adapt CFR Education's synchronous/face-to-face simulation into an asynchronous space that fosters a deep learning experience, the CoI model has guided the integration of multiple instructional and collaborative technologies. These technologies create an inclusive, immersive learning environment that delivers content across various platforms while fostering social collaboration, critical thinking, and effective facilitation.

By using the CoI framework, educators and instructional designers can collaboratively design a structured yet flexible environment that encourages deep, collaborative, and transformative learning experiences (Garrison, 2019). As we determined the instructional framework of the simulation design, we then selected a suite of technology tools best suited to support an immersive asynchronous learning environment. Yellowdig (Figure 2) is an online learning platform that leverages social media functionality, an understanding of human behavior,

and gameful technology to build online learning communities. Gameful learning is an innovative approach to instructional design that transforms teaching and learning by creating meaningful experiences and tapping into a learner's intrinsic motivation to progress. Unlike gamification, which primarily adds game mechanics like rewards and accolades, gameful learning emphasizes the learner's emotional connection to the content, fostering an immersive learning experience that encourages ownership of new concepts and situations. At its core, gameful learning and technology promote teamwork, reduce the fear of failure, and provide a space where instructor and peer feedback is immediate and highly valued (Dichev, Dicheva, Angelova, Agre 2014, 88). This approach, combined with gameful technologies like Yellowdig, strongly supports the three primary foundations of the Community of Inquiry (CoI) framework.

Social presence is enhanced through increased learner engagement and opportunities for learners to internalize new concepts via motivational factors such as peer discussion, instructor feedback, and a built-in points reward system. In this student-driven online environment, learners experience ongoing cognitive presence by analyzing new, situational concepts (see Appendix A). These concepts are synthesized with existing knowledge, enabling learners to make new experiential connections and expand their skill base. Teaching presence is crucial in gameful learning, as instructors construct meaning from instructional content by clarifying learning outcomes and ensuring a strong link between learning activities and assessments. Yellowdig leverages gameful learning by providing a space for learners to ask questions, make observations, and role-play within a trusted community-based environment, making it a valuable tool for active, intentional engagement (Dichev, Dicheva, Angelova, Agre 2014, 95). The dynamic between learners and the instructor makes Yellowdig a valuable tool for active, intentional engagement.

To create a more immersive and impactful experience, the simulation was adapted using the eLearning authoring tool Rise by Articulate. Rise is nimble enough to create a heavily stylized but structured online "world" that includes easy access to interactive tools and resources as well as a detailed system of rules, tasks and strategies that have been created for the purpose of developing specific competencies that can be directly transferred to the real world (Liubchaki, Zuban, Artyukhov, 2021, 343). Additionally, Rise allows us to embed our simulation within the existing learning management system, which keeps learners within the familiar context of their course. As Ghai and Tandon explain, learning performance is significantly increased and enhanced by visual design (2022). To style the simulation space and create a variety of visual elements that maximize the overall sense of authenticity and increased usability, we have utilized Canva, a free, web-based graphic design software. With Canva, we have also been able to easily create supporting infographics that is both attractive and consumable.

Utilizing D2L, which is the existing learning management system available at the university, offers a familiar online space for course delivery that not only alleviates the cognitive load of introducing a new technology, but is also available to all faculty, staff, and students. Additionally, D2L allows easy content scaffolding using learning modules. Thus, an instructor can begin to build foundational content throughout the course in preparation for the actual simulation activity. The design team set out to ensure that the simulation's technology integration supports the course design to create a cohesive learning experience. As we have created activities that support the CoI model, it has been important to ensure that the technology utilized maximizes the learning goals. Teaching presence is essential to the success of the simulation. While Garrison (2019) describes teaching presence in terms of a theoretical construct to reinforce the need for active engagement, he also provides an actionable framework of seven design principles to guide

instructional designers. We use these principles to define how to best utilize supporting technologies.

Principle 1: Design for open communication and trust.

To build a community of communication and trust, Yellowdig has been introduced in the first week of an 8-week course. Many of today's learners are very comfortable with both the technology and more organic discourse associated with social media. Bingham and Conner note, "The new social learning combines social media tools with a shift in organizational structure, a shift that encourages ongoing knowledge transfer and connects people in ways that make learning enjoyable" (2015, 8). By introducing Yellowdig from week one, the course instructor is able to establish a rapport with students and set the tone of the discussion. Once established, the students themselves grow the community through their own comments and reactions, adding familiar contextual elements to emphasize their perspectives, like video, emoticons, and hashtags. In this environment, the instructor's job is to set the tone for engagement, establish a rapport with learners, and become a source of knowledge.

Principle 2: Design for critical reflection and discourse

The overall design process for the simulation incorporates multiple methods for reflection and discourse. Yellowing operates as a reliable vehicle for ongoing, candid discussion. These discussions involve students posting initial entries as well as replying to their peers. The later has been identified as a predictor of overall grade per Martin, Martin, and Feldstein (2017, 71), "The results of the analysis indicated that out-degree (the number of times a community member has sent feedback directly to another student through comments and up-votes) is a significant predictor of course grades. We believe that a student's course grade was impacted because commenting on other students' posts requires thought and effort into articles being posted on Yellowdig." Using

the eLearning authoring platform Rise by Articulate, we also provide easily accessible simulation source materials for learners to review and consider within the online space of the simulation. Additionally, the simulation itself is bookended by two activities designed to encourage critical reflection: a role-playing policy paper before the simulation to establish the perspective and subsequent policy recommendations supported by each student based on the NSC role assigned to them, and a reflective essay immediately after the simulation. Learners who are able to select their own roles are shown to be more engaged with a simulation exercise (Mills & Laubepin, 2022). The role proposal requires participants to take on the role of a National Security Council member of their choosing before describing what their membership in the NSC represents historically, what their decision-making priorities have been, and how they hope to address the dilemma presented to them during the simulation.

Each of these steps is supported by discussion through Yellowdig, which acts as both an engagement and a content scaffolding tool. After the simulation, each participant submits a reflective essay describing the final policy decision and offering analysis of the policy options presented, as well as the deliberation process that takes place during the simulation. Thus, the simulation is ultimately made up of multiple cohesive parts developed through multiple integrated technologies: the ongoing discussion, content scaffolding, and role-play are supported by Yellowdig; the simulation environment, instructions and access to source materials are supported by Articulate Rise; the policy proposal, the embedded simulation activity, and the reflective summary assignment are supported by Desire2Learn (see Appendix, Figure 3 below for module content screenshot).

Principle 3: Create and sustain a sense of community

Yellowdig not only supports the creation and sustainability of an online learning community. Whiteside and Ensmann (2023) describe four strategies for establishing and sustaining a community with the use of Yellowdig: connections, extending, journaling, and supporting (2023). Each of these lend to the ongoing sense of community. Yellowdig fosters interpersonal relationships, or *connections*, among learners by encouraging interaction, sharing experiences, and responding to peers. This helps learners feel seen and heard, reducing isolation. This platform also encourages students to go beyond an original post or idea, *extending* existing concepts by contributing new perspectives, questions, or resources. In this same vein, learners are allowed to reflect personally on their learning experiences. This method of social *journaling* promotes self-awareness and a sense of ownership. When shared, these reflections help others connect on a more personal level. Finally, through the established rapport and trust developed by the course instructor, Yellowdig offers a space to maintain a culture of *supporting* and sharing where students encourage and help each other, reinforcing psychological safety and trust, which are critical for sustained engagement and community health.

Principle 4: Support purposeful inquiry

Because Yellowdig facilitates discussion among learners with a variety of backgrounds and experiences, participants were able to explore diverse perspectives. Learners were encouraged to access and critically evaluate the validity, reliability, and relevance of any additional source materials they studied as part of their own independent research and discussion preparation, leading to more thoughtful conclusions in the simulation. Access to these shared materials through both Yellowdig and Articulate Rise ensures learners can engage deeply with primary or secondary sources to analyze, question, and synthesize information.

Additionally, the use of technology that supports interactivity allows learners to interact with content, peers, and the instructor in dynamic ways, including role play. Role play creates an experiential learning scenario where learners can make emotional connections to both the subject matter and their learning cohort, which enhances their ability to apply new ideas to realistic contexts. This emotional connection promotes critical thinking and adaptability in real-world situations (O'Flanagan and Jester, 2025). Such a connection to the simulation content and the course learning community fosters a more critical review and discussion of the simulation materials. The simulation, roleplay and discussion culminates with a reflective essay that encourages learners to connect academic knowledge with practical experiences. Through this activity, learners articulate their learning journey by analyzing their experiences, considering the impact of their actions, and identifying areas for improvement. This critical reflection enhanced their ability to transfer insights to future challenges.

Principle 5: Ensure the students sustain collaboration

Yellowdig fosters student-led discourse. While the instructor models behavior, it is the synergy created by the ongoing discussion that sustains the enthusiastic participation of each learner. The gameful principles inherent in the Yellowdig functionality also motivates authentic engagement. Gamification elements can keep learners in a state of flow in non-game activities (Uz Bilgin, C., Gul, A. 2020). The instructor encourages continued participation by using gaming elements such as accolades, badges, internal polls (see Figure 5) and guided discussion drawing directly from course assignments to garner participation points and high-quality discourse.

Principle 6: Ensure inquiry moves to resolution

As part of the course design, students submit written assignments that require them to recall new information and contextualize that information. Through reflection and analysis of new

information facilitated by the simulation activity, students are encouraged to apply their knowledge to other real-world scenarios. In this way, learners are able to assimilate new information with their own existing knowledge, essentially taking ownership of these new ideas and enhancing their ability to analyze future scenarios (Khmelivska 2024).

Principle 7: Ensure assessment is congruent with intended learning outcomes.

To ensure assessment aligns with the course learning outcomes, we have included activities that are designed to clearly define and support course learning objectives. While written assignments before and after the simulation require the use of cited source materials and analysis to develop measurable demonstrations of the learning objectives, the simulation itself and the coinciding discussion is designed to encourage learners to authentically reflect on real-world scenarios for more qualitative assessment. Using rubrics with clear criteria for formative and summative assessments, the instructor facilitates learning by setting expectations, providing feedback, and leading debriefing sessions. Reflection and self-assessment further reinforce learning by connecting experiences to learning outcomes. By integrating these elements, the simulation effectively enables opportunities for student performance evaluation while fostering critical thinking, problem-solving, and collaboration in a structured and meaningful learning environment (Khmelivska 2024).

Cognitive Presence: Research and Real-World Simulation

When planning an asynchronous simulation, our first consideration has been creating a space that encapsulates a real-world, fully immersive scenario. The design includes historical context, crucial decision points, and clear instructions for utilizing the learning space and associated platforms. Opportunities for both interaction within the simulation and independent

research have been provided through multimedia integrations and links to collaboration tools. Articulate Rise enables us to quickly create a modular, web-based learning space where simulation content is presented in manageable, interactive blocks. For example, the simulation includes five primary sections:

- **The Situation**: Contextualizes the simulation and provides access to source materials supporting critical reflection. This part of the simulation sets the tone and **e**nsures learners can engage deeply with primary or secondary sources to analyze, question, and synthesize information (see Figure 6). By exploring diverse perspectives or evidence, learners are encouraged to critically evaluate the validity, reliability, and relevance of materials, leading to more thoughtful conclusions.
- **The Decision Point**: Outlining the problem-solving goal based on situational details. This section describes the goal of the simulation as a whole by narrowing the focus of the situation and giving learners direction and purpose in their discussion and research (see Figure 7).
- **Introduction to the National Security Council**: A video-based lesson on the NSC's role in the simulation. This part of the activity ties directly back to the pre-simulation NSC role selection and policy proposal, providing learners with a more robust historical understanding of the part they play in appreciating perspectives outside their own and how those perspectives guide the priorities of each group member (Figure 8).
- **Instructions for the Simulation**: Step-by-step guidance for collaborative and independent participation (Figure 9). In this section, learners are prompted to take part in immersive role-play, debating and discussing policy in character as members of the National Security Council. The role play and ongoing discussion using resources and source materials

provided by the instructor and their cohorts create an experiential learning scenario where learners can apply knowledge in realistic contexts. By adopting roles, making decisions, and solving problems, learners deepen their understanding of concepts while promoting critical thinking and adaptability in real-world situations.

- **Simulation Wrap**: Reflection prompts and key takeaways for self-assessment. This section encourages learners to connect academic knowledge with practical experiences and articulate their learning journey (Figure 10). Through structured reflection, learners analyze their experiences, consider the impact of their actions, and identify areas for improvement, enhancing their ability to transfer insights to future challenges. This approach supports critical thinking and problem-solving, key aspects of cognitive presence within the CoI model.

Social Presence: Role-Playing and Community Engagement

To establish a deep sense of social presence, learners have been assigned specific roles as members of the National Security Council. These roles encouraged them to adopt perspectives beyond their own values and opinions. To share their perspectives, Yellowdig is utilized as a discussion-based community platform. Unlike typical discussion boards, Yellowdig fosters organic, student-driven conversations about real-world topics relevant to the simulation, which is crucial in maintaining momentum through discussion and resource sharing (Johnson 2016). Again, the instructor plays a critical role in the design considerations and in the implementation of the simulation. By modeling thoughtful engagement and redirecting discussions to deepen content understanding, the instructor is able to facilitate a trusted, community-based environment where learners feel connected and engaged.

This asynchronous simulation design demonstrates how the CoI model can guide the development of engaging and effective online learning experiences. By fostering social, cognitive, and teaching presences, the simulation offers learners an opportunity to engage deeply with content, collaborate meaningfully, and develop critical decision-making skills in a flexible, inclusive learning environment.

Discussion and Results

The data presented below has been accessed within Yellowdig. The data shared here is a sample of the actionable data provided. The three images included (see Appendix) represent data through the duration of an eight-week course. The instructor is key in laying the foundation of a trusting community well before the simulation begins by encouraging students to openly share their ideas and opinions through scholarly discourse, response modelling, and guidance. This culminating trust in their community and their peers sets the stage for students to participate in lively participation in the simulation activity by the final week of class. Each data element is briefly described in terms of purpose and design, followed by action items.

Community Participation

The Community Health Dashboard provides community facilitators/instructors insight into their community's overall and week-by-week engagement levels (Miron 2023). Through the dashboard, instructors can access detailed metrics, such as *total posts*, *total comments*, *total reactions,* and the c*onversation ratio*. The conversation ratio reflects the extent to which students are paying attention to each other's work and engaging in back-and-forth conversation (see Figure 11). The higher the Conversation Ratio, the more engaged students are in the discussions. Conversation Ratio measures the extent to which students are engaging in sustained, back-and-forth conversations, which build social connections and drive student learning. Active discourse is

denoted by the presence of more response comments than initial posts, which indicates active discourse with multiple contributors. While a target conversation ratio is eight or higher per Yellowdig, the data for the duration of this course shows a ratio of 3.09. This score tells the instructor they may want to award accolades (additional points facilitators can award to encourage desired behaviors) for those who comment on another's post or comment. With the goal being sustained conversation, rewarding this type of behavior may aid in increasing the conversation ratio. Having said that, Yellowdig analytics are based on student driven discussion without the use of prompts provided by the instructor. In this course, however, Yellowdig has been implemented as a vehicle for a smaller class size of students to engage in direct response to the simulation instructions (i.e. the NSC role-paly scenario). This adjustment in the way students interact within the platform may account for the lower conversation score, since all students are required to create initial posts in their role-play, while there are fewer students to respond through follow-up comments. As such, one can also access the data for the simulation itself. For the simulation, the conversation rate was 4.36. This is a significant increase from the conversation rate of the rest of the semester and provides some evidence that the simulation works to increase student engagement see Figure 12).

The Community Health Composite Scores provide instructors with a detailed analysis of their community's strengths and areas for improvement (Miron 2023). The platform offers three primary composite scores—Sharing, Listening, and Interacting—each derived from metrics that assess the extent to which students engage with their peers by contributing content (sharing), consuming shared content (listening), and actively participating in discussions (interacting). The three scores are measured on a scale from 0 to 100 and are compared to the global Yellowdig communities' score. For academic communities, the following interpretive guidelines apply:

- 0 to 24: Deficient
- 25 to 74: Improvable
- 75 to 100: Healthy

Yellowdig suggests that generally instructors should strive for scores of at least 75 across all three areas relative to the Yellowdig global medians. In this course the Interacting Score surpasses that baseline at 79 while the Sharing Score is not too far off at 64, but the listening score is only 44. According to Yellowdig, high Listening and Interacting Scores reflect that students are consuming the content that is being posted and are interacting with it. While we did not see this, we can speculate that the difference in scores is based on our course design. In this course, the high Interacting score in the absence of an equally high Listening score (in this case a 44), reinforces the suggestion that having utilized Yellowdig not just as an organic discussion platform but also as a platform for structured assignment responses has impacted the scores. The high Interacting score and the absence of coinciding high Listening and Sharing scores usually happens when students are required to post a lot or write long posts, which is exactly what was expected of them as a requirement of the simulation. Thus, students were engaging, just not necessarily in the way the instructor hoped for. In none of three areas, however, were the scores deficient. Thus, it is noteworthy to repeat that the students were engaged, but that these engagements could be improved upon.

The notably high Interacting score suggests that students were engaging with posted content and also actively discussing it, but not in the same way that they would in perhaps a more freeform use of the platform. Over time, as Listening and Interacting scores increase, the Sharing score tends to align with them, as students begin to contribute and engage beyond the required level (Figure 12). The green, yellow, and blue bars display the data from this single course. This data illustrates how this learning community is performing in comparison to global Yellowdig

scores. The instructor can see that the community is performing well related to length of posts, average links to additional resources shared, and the number of multimedia-based posts (using video or audio to comment or post).

The instructor can see that the community is performing well related to comments per post and the number of connected students. The yellow bar indicates that the instructor may want to model the use of reactions in the community or award an accolade (extra points and a badge) for students that have provided reactions to their peers. The green bar for the average number of connections reflects more extensive posts as well as an increased use of multimedia and links within those posts. Comparing these scores throughout the course, the instructor is able to make behavioral adjustments throughout the semester, such as modelling the use of the @ to connect one student's post with another's in meaningful ways and awarding accolades to those that are commenting on posts/comments from a variety of class members. Looking at the Network Graph Visualization & Table may provide additional insights into the students' behaviors.

The Network Graph Visualization & Table allows instructors to analyze community interactions at both the whole class and individual student levels (Figure 14). This feature enables instructors to proactively recognize at-risk members and implement timely interventions to support their participation (Miron 2023). It visualizes connectivity, highlighting key discussion leaders who engage with multiple peers, as well as individuals who may not be actively connecting with others and may require additional support. Community members may fall behind for various reasons, including social anxiety, personal circumstances, or academic challenges. Identifying these situations early is essential to preventing prolonged isolation or disengagement. In the visualization, circles with profile images represent individual community members, while arrowed lines illustrate connections between them. These connections are established when a member

comments on a post, receives a comment, or engages in a reply. The density of arrowed lines serves as an indicator of a member's level of engagement within the community.

This snapshot shows the network connection analysis during the entire course. Overall, the figure illustrates that many of the students shared direct engagement with 88% of the course. These data show that even if the Conversation ratio needs improvement, as well as the composite scores, within the CoI framework, the social presence is being met. Students are clearly engaging socially with one another and feel comfortable. It should also be noted that two of the profiles shown are members of the instructional design team, and one is the professor. The professor's stats are compelling. The network shows that the professor responded to 125% of the students, and received responses from 113% of the students (thus, the scores are 100% for both, as the comments to and from the ID team are included in the data, skewing the percentage to higher than the number of students in the course). Once again, although the professor has areas to improve based on the global Yellowdig average scores, when considering the CoI framework, it is worth noting that the teaching presence is being satisfied. Although there are some areas to improve, this paper demonstrates that students can be highly engaged using a simulation in an asynchronous graduate online environment.

Finally, Yellowdig provides an activity log (Figure 15). The activity log illustrates nicely the total number of posts, comments, reactions and accolades for each week of the course. One can see that in all but one of the areas, week 8 yielded the highest numbers for the activity log. The only field that has a higher total is number of original posts, and that week is the first week, where an introductory post was mandatory, and, there were 3 more active students in the course (having dropped before the simulation). The fact that week 8, the simulation, has so much activity, helps

secure the thesis that simulations increase engagement in asynchronous courses. This is explored more in detail below.

Conclusion and Implications

Before proceeding to the concluding remarks and implications, it is important to note some limitations. First, this simulation was created and implemented very quickly, within a month of the course being developed for its second running. It was just the second time the course was taught in an asynchronous fashion, as a part of a new concentration for a graduate degree. With it being new, the course and simulation were also negatively impacted by the total number of students that stayed in the course through the simulation, which occurred on the last week of the course. The total number of participating students was only 5 (starting with 8, with three dropping before the simulation). This low number we believe, is the second major limitation to the present study. The third and final limitation is that it takes significant resources, both in time, faculty, and money to implement such a course design. For this one section, the faculty member spent much more time engaging, grading and in working with the IDs for the course to make it work. Additionally, although there was only 1 ID assigned to the course, at least 2-3 team members contributed and were involved from the instructional design team. Finally, the tools used are expensive and not easily accessible for every university. We understand that this can negatively impact replication of our results and general adaptation of the design. With these limitations noted, it is important to highlight that the course was successful in creating an engaged simulation that helped the attention of the students and the professor.

The purpose of this study was to see if an asynchronous graduate-level simulation could engage students in an effective way. We find that although there are areas for improvement, the course worked well. The simulation (including the weeks leading up to the simulation where

students were introduced to the main form of communication for the simulation, Yellowdig), engaged students. Although we don't have a control scenario, or other courses to compare with, the global stats that Yellowdig provides demonstrate that students were engaged, at least when compared to the larger Yellowdig community. The Interacting Score was a 79 while the Sharing Score was a 64. However, according to Yellowdig, high Listening and Interacting Scores reflect that students are consuming the content that is being posted and are interacting with it. The lower Listening Score of a 44 reinforces the suggestion that having utilized Yellowdig as a platform for structured assignment responses has negatively impacted the scores. Our sharing score was good but needs improvement. Our listening score was the lowest, demonstrating a greater area for the professor to improve course design and implementation, but was still not deficient according to Yellowdig.

Both of these scores can be improved by the professor modelling best practices, including replying to students directly by using the @ symbol to call out specific students or groups of students to get them to engage. This can also be increased by the professor using more topic tags, commonly referred to as hashtags on social media. The Interacting score was the simulation's highest of the three scores measured, and demonstrates that effective engagement can occur in a graduate asynchronous course. There are other data that help make this case as well. Considering the average number of comments, the course was only .04 points off the global mean number of comments, with .34 compared to 38. When considering the average number of posts, the course performed well with a score of .11 compared to the global average of .12. The simulation far outpaced the global average of words per post, with a score of 58.31 compared to the global average of 38.36. This is a great learning moment. Although this shows students were writing at great length, which is a positive, it is also a negative in that they were spending more time on

original posts, rather than engaging other students' comments, which would benefit the course and simulation more than original posts. This, however, is something that can easily be fixed in future iterations of the course. For the simulation, the data demonstrate that all but one area, original posts, were highest in week 8 (the simulation) than the rest of the semester.

Thus, there are lessons learned. The professor wanted to take a more hands-off approach to the course and simulation, but in so doing, although students took the initiative and posted great posts they were more like essays than conversations. This is a teachable moment in future classes where the professor can engage the students and encourage them to engage with other students, rather than writing lengthy substantive posts. Although these are necessary, especially in a simulation, there has to be more converastions. However, considering this was a graduate-level course, these longer, essay-style posts for the simulation demonstrate a graduate-level capability of writing and research, as demonstrated by the shared links and multimedia posts. The average number of links shared was more than double the global average, coming in at .07 links per student, compared to the .03 Yellowdig score. Finally, the average number of multimedia items shared was also higher than the global trends, averaging .04 shared items, compared to the global average of .01. This is a clear result of the simulation, as students were required to post video debates and responses to their peers in the National Security Council role-play. When approached holistically, and within the CoI framework, it is clear that high engagement rates are possible in a graduate-level asynchronous course.

This study set out to determine whether a carefully designed asynchronous simulation could meaningfully engage graduate-level learners in security studies. Through intentional design and a purposeful application of the CoI framework, we demonstrated that the answer is a qualified yes. Despite limitations in sample size and the demands of resource-intensive implementation, our

results indicate that simulations—when embedded in a pedagogically sound, technology-supported environment—can foster the critical pillars of the CoI model: cognitive presence, social presence, and teaching presence. The immersive role-play and structured activities supported by platforms like Yellowdig and Articulate Rise encouraged students to engage deeply with course content, one another, and their instructor in ways that mirror best practices in both experiential learning and online instructional design. By cultivating sustained dialogue, promoting reflection, and leveraging social interaction within the National Security Council simulation, the course activated the kinds of meaningful engagement that the CoI framework is designed to promote.

Cognitive presence was at the heart of the simulation, structured to promote critical thinking, problem-solving, and the construction of meaning. The simulation's scaffolding—beginning with historical context, decision-making frameworks, and culminating in a reflective essay—enabled students to engage in sustained inquiry. Tools like Articulate Rise provided modular content blocks with layered information and resources, supporting analysis and synthesis of real-world national security challenges. By requiring learners to adopt a policymaking role, construct policy proposals, debate peer perspectives, and then reflect on outcomes, the simulation moved students through all four phases of the Practical Inquiry Model (triggering event, exploration, integration, and resolution), making cognitive presence deeply embedded in the learning experience.

Social presence was fostered by creating a learning environment where students could present themselves authentically and engage meaningfully with peers. The use of Yellowdig as a dynamic discussion platform allowed for informal, real-time-like exchanges that simulated in-person debate, but asynchronously. The role-play component of the simulation further amplified social presence by requiring students to adopt distinct identities (e.g., members of the National

Security Council), thus promoting perspective-taking and empathy. Gamification features like accolades and multimedia sharing encouraged students to connect personally and intellectually, facilitating both affective expression and open communication. The result was a vibrant, if small, learning community marked by interaction and mutual recognition.

Teaching presence was carefully established through structured design and active facilitation. The simulation reflected Garrison's seven instructional design principles, including open communication, sustained collaboration, and assessment congruence. The instructional team scaffolded the course by introducing Yellowdig early to build trust and familiarity, then guided students through the simulation with clear instructions, resource-rich modules, and role-specific assignments. The instructor maintained a visible presence throughout, modeling engagement, offering feedback, and steering discussion with targeted interventions. This guidance not only supported students' learning but also aligned activities and assessments with course outcomes, reinforcing teaching presence as both design and facilitation.

Together, these three presences created a comprehensive learning experience that transcended traditional asynchronous instruction. Students were not passive recipients of content; they became active agents in a shared inquiry process. The CoI framework ensured that cognitive challenge, social connection, and instructional support were all present and mutually reinforcing. The simulation did more than simulate national security decision-making—it simulated a genuine scholarly community of inquiry.

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APPENDIX

Figure 2: Screenshot of Yellowdig Course Discussion

As we determined the instructional framework of the simulation design, we selected a suite of technology tools best suited to support an immersive asynchronous learning environment. Yellowdig (See figure 2 below) is an online learning platform that leverages social media functionality, an understanding of human behavior, and gameful technology to build online learning communities. This platform offered an online space for learners to ask questions, make observations, and role-play within a trusted community- based environment with their instructor as a guide.

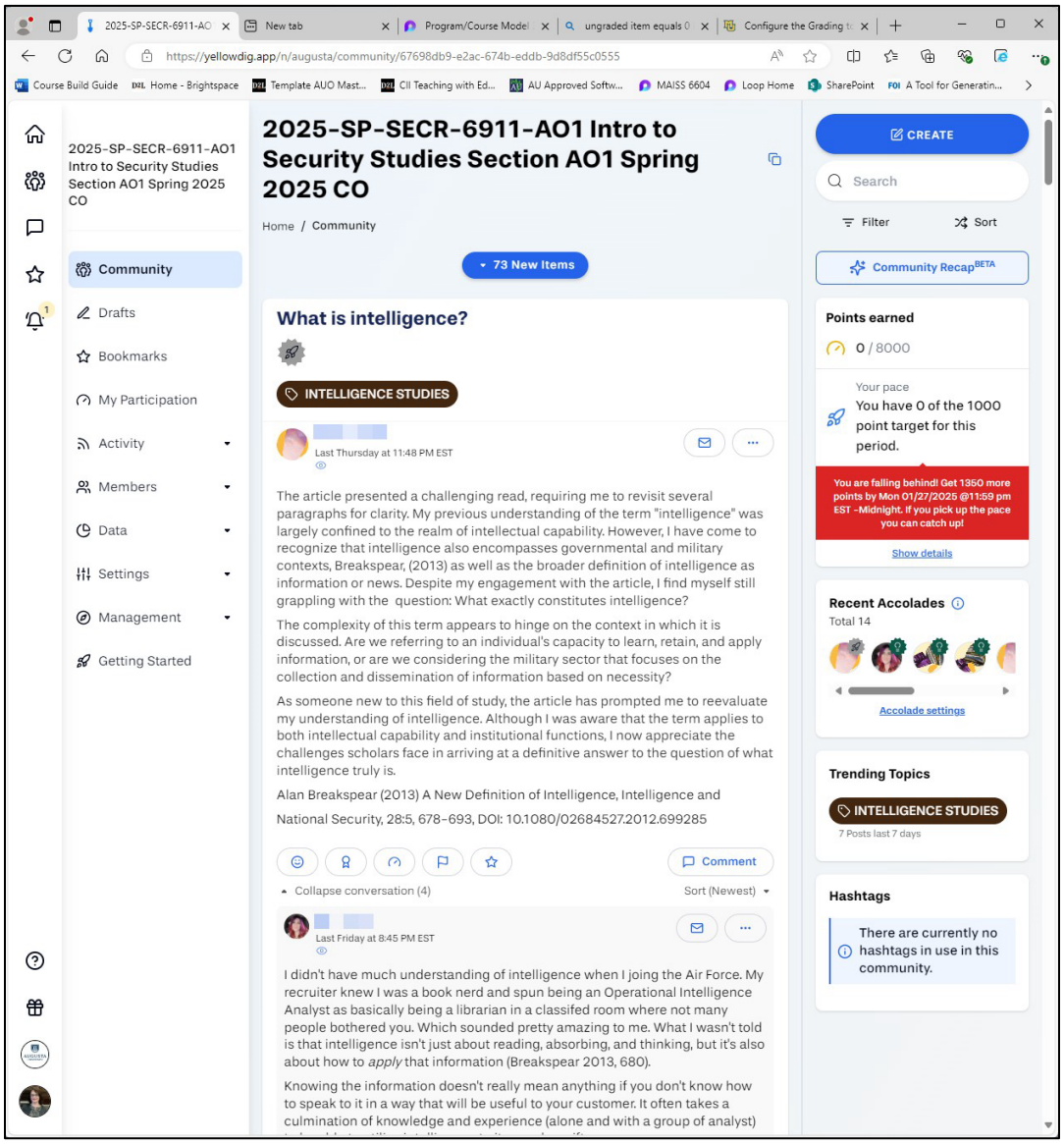


Figure 3: Simulation Module Screenshot

The simulation was made up of multiple cohesive parts developed through multiple integrated technologies: the ongoing discussion, content scaffolding, and role-play were supported by Yellowdig; the simulation environment, instructions and access to source materials were supported by Articulate Rise; the policy proposal, the embedded simulation activity, and the reflective summary assignment were supported by Desire2Learn.

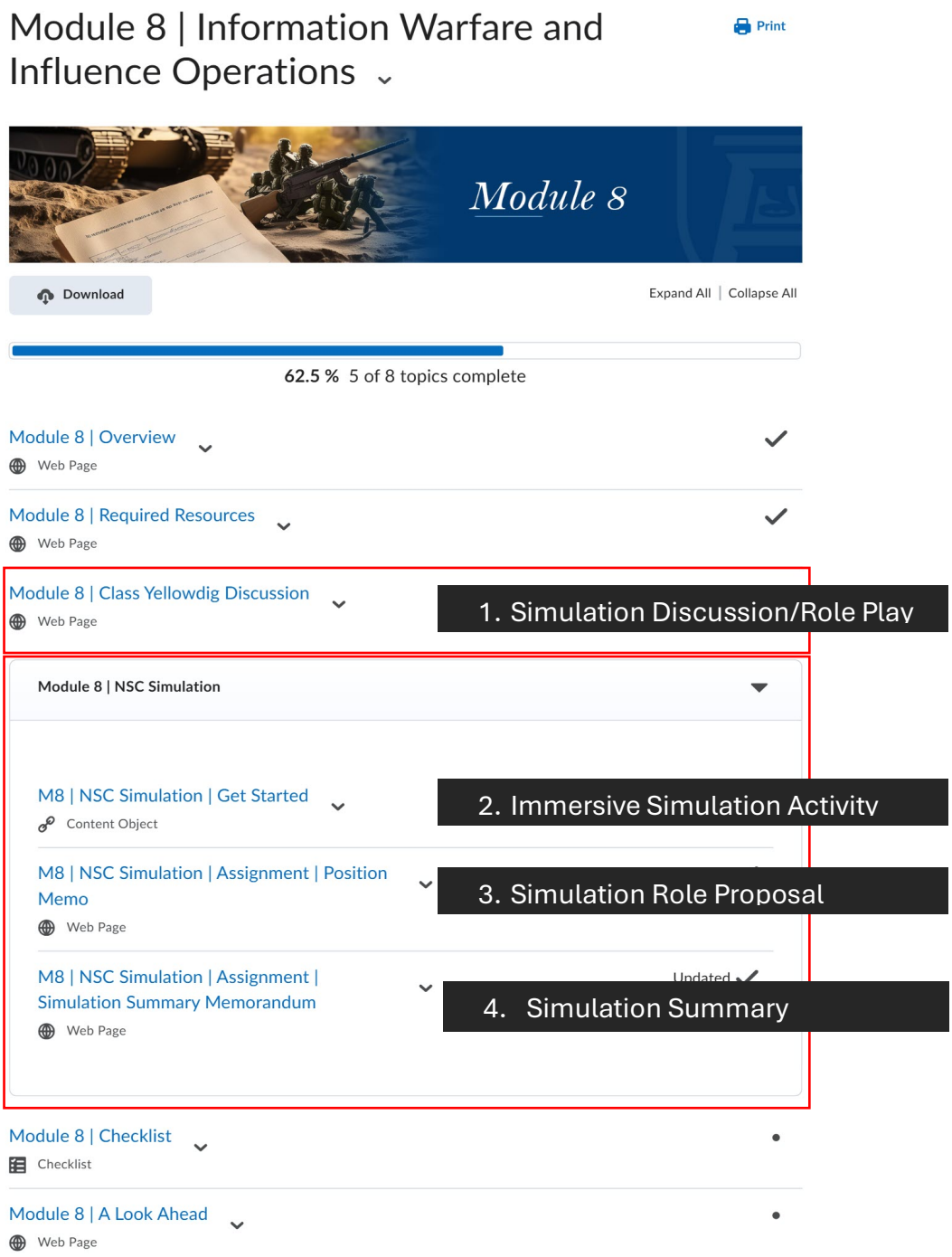


Figure 4: Yellowdig Instructions and Example

Students earned points for different types of interactions in Yellowdig (see figure 4), and those points were converted into a grade and passed back to the D2L gradebook. The grade was based purely on participation, so students feel freer to discuss topics openly without fear of academic penalty.

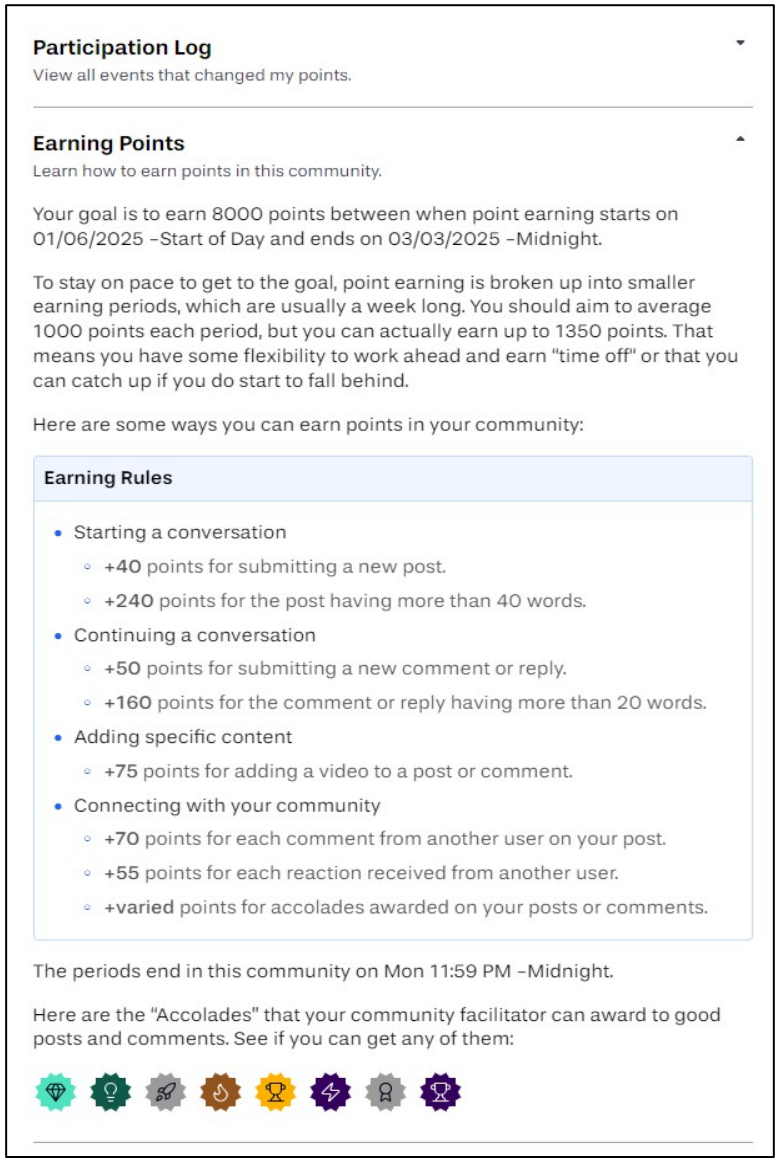


Figure 5: Yellowdig Gameful Learning
Gamification elements can keep learners in a state of flow in non-game activities (Uz Bilgin, C., Gul, A. 2020). The instructor encouraged continued participation by using gaming elements such as accolades, badges, internal polls while the guided discussion that he led drawing directly from course assignments to garner participation points and high-quality discourse supports gameful learning practice.

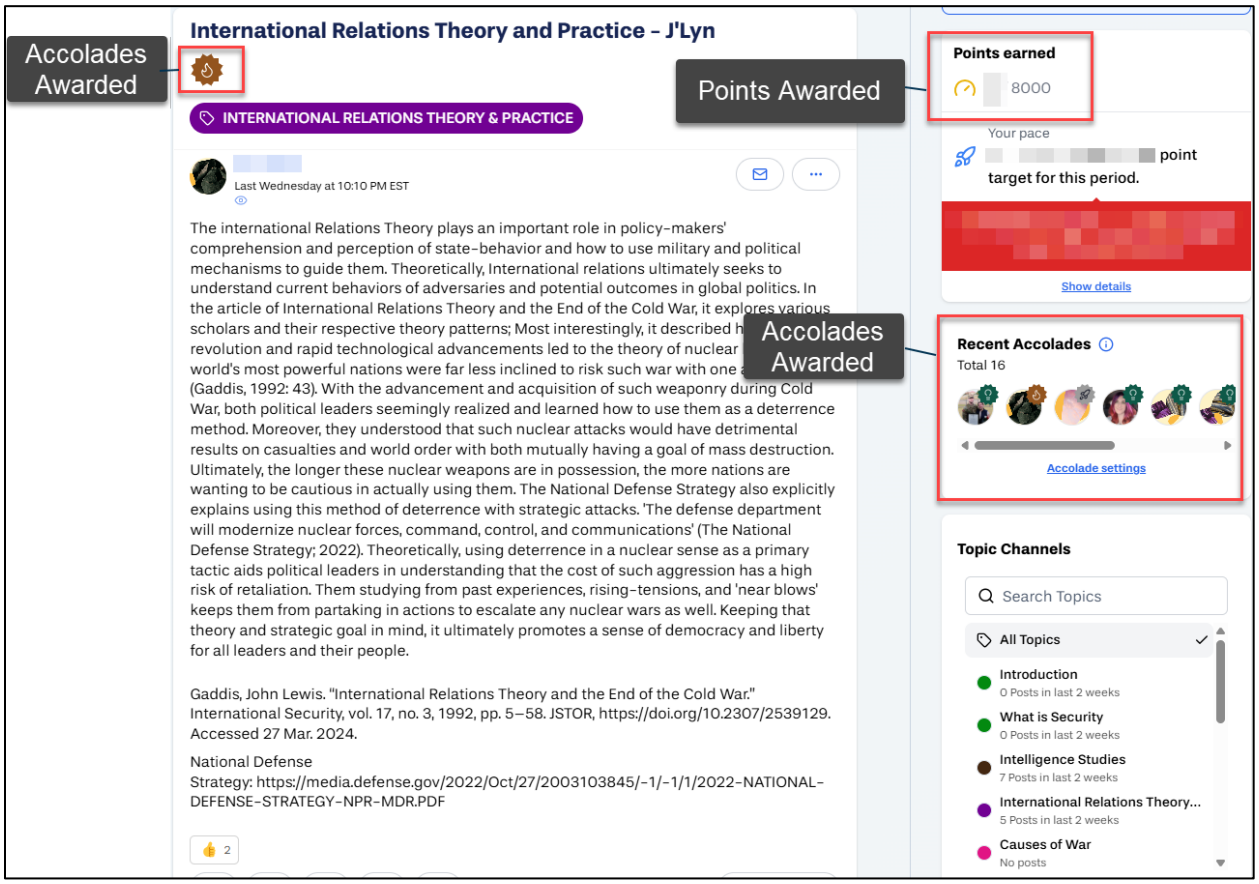


Figure 6: Embedded Simulation Example – "The Situation"

The Situation: Contextualizes the simulation and provides access to source materials supporting critical reflection. The part of the simulation sets the tone and **e**nsures learners can engage deeply with primary or secondary sources to analyze, question, and synthesize information.

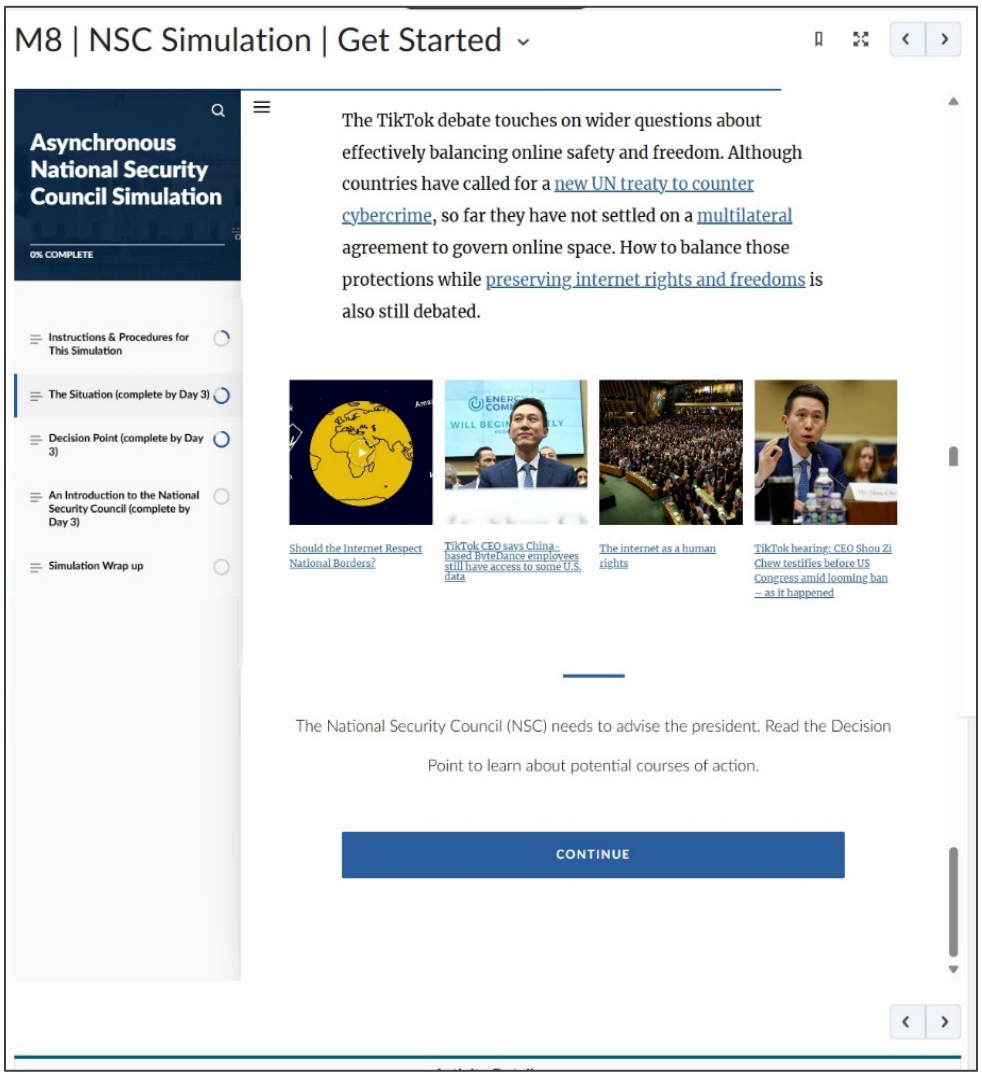


Figure 7: Embedded Simulation Example – "The Decision Point"

The Decision Point: Outlining the problem-solving goal based on situational details. This section describes the goal of the simulation as a whole by narrowing the focus of the situation and giving learners direction and purpose in their discussion and research.

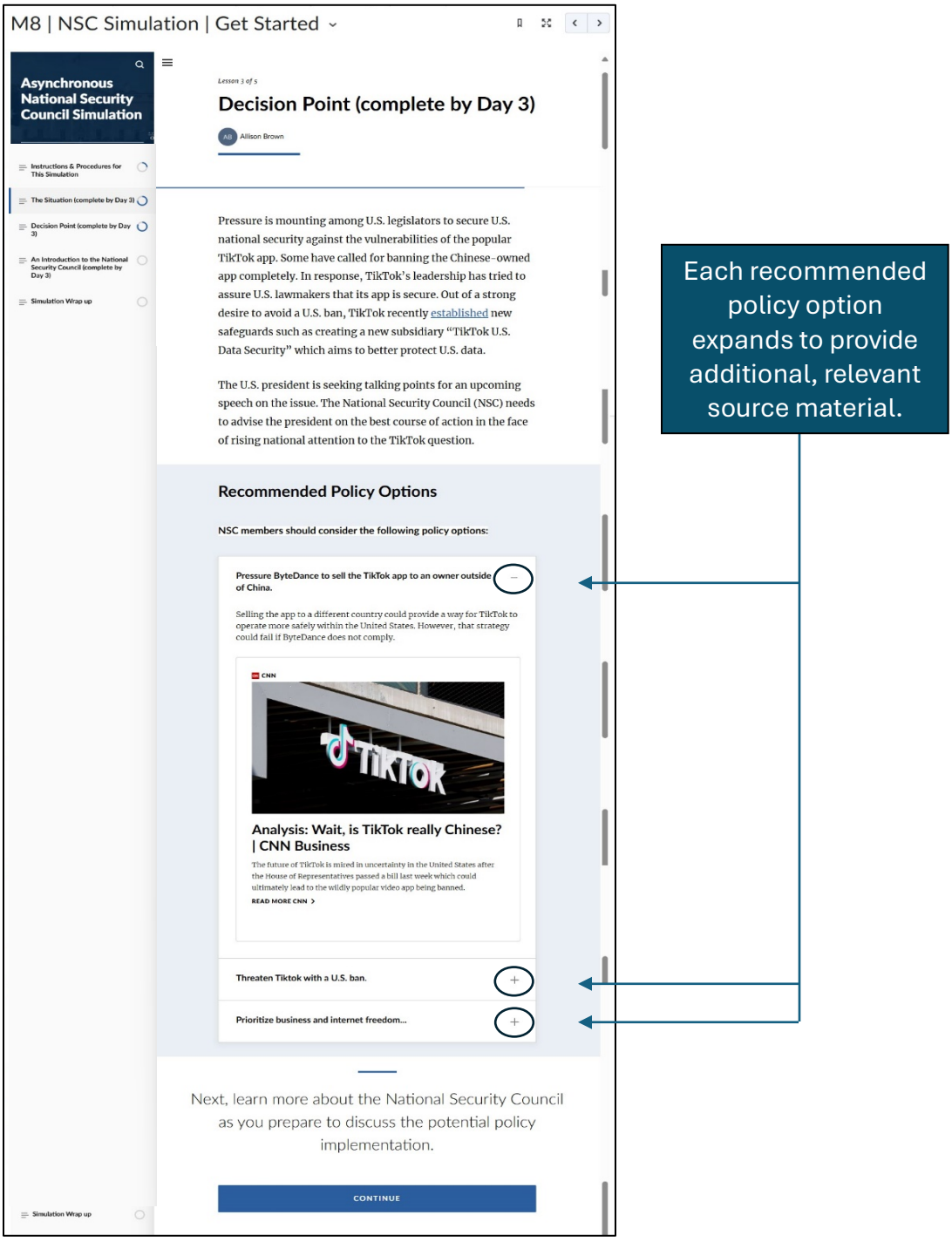


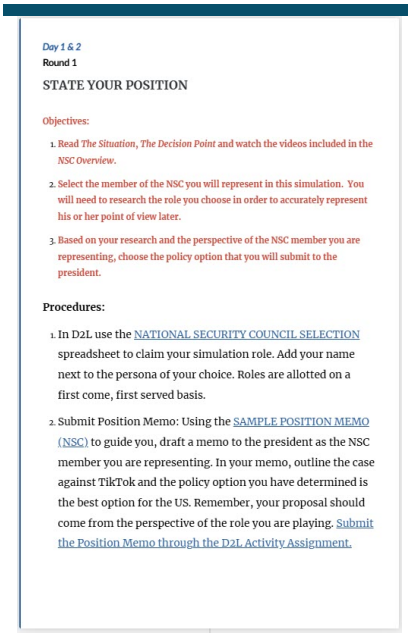
Figure 8: Embedded Simulation Example – "An Introduction to the National Security Council"

Introduction to the National Security Council: A video-based lesson on the NSC's role in the simulation. This part of the activity ties directly back to the pre-simulation NSC role selection and policy proposal, providing learners with a more robust historical understanding of the part they play in appreciating perspectives outside their own and how those perspectives guide the priorities of each group member (Figure 8).

Figure 9: Embedded Simulation Directions

Instructions for the Simulation: Step-by-step guidance for collaborative and independent participation. In this section, learners are prompted to take part in immersive role-play, debating and discussing policy in character as members of the National Security Council. The role play and ongoing discussion using resources and source materials provided by the instructor and their cohorts create an experiential learning scenario where learners can apply knowledge in realistic contexts.

Rounds 1 through 4 Instructions in Rise



Day 1 & 2
Round 1

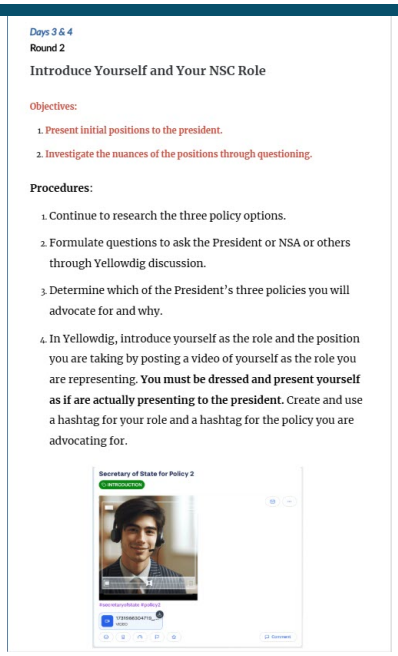
STATE YOUR POSITION

Objectives:

1. Read *The Situation*, *The Decision Point* and watch the videos included in the *NSC Overview*.
2. Select the member of the NSC you will represent in this simulation. You will need to research the role you choose in order to accurately represent his or her point of view later.
3. Based on your research and the perspective of the NSC member you are representing, choose the policy option that you will submit to the president.

Procedures:

1. In D2L use the NATIONAL SECURITY COUNCIL SELECTION spreadsheet to claim your simulation role. Add your name next to the persona of your choice. Roles are allotted on a first come, first served basis.
2. Submit Position Memo: Using the SAMPLE POSITION MEMO (NSC) to guide you, draft a memo to the president as the NSC member you are representing. In your memo, outline the case against TikTok and the policy option you have determined is the best option for the US. Remember, your proposal should come from the perspective of the role you are playing. Submit the Position Memo through the D2L Activity Assignment.



Days 3 & 4
Round 2

Introduce Yourself and Your NSC Role

Objectives:

1. Present initial positions to the president.
2. Investigate the nuances of the positions through questioning.

Procedures:

1. Continue to research the three policy options.
2. Formulate questions to ask the President or NSA or others through Yellowdig discussion.
3. Determine which of the President's three policies you will advocate for and why.
4. In Yellowdig, introduce yourself as the role and the position you are taking by posting a video of yourself as the role you are representing. **You must be dressed and present yourself as if are actually presenting to the president.** Create and use a hashtag for your role and a hashtag for the policy you are advocating for.

Ongoing Discussion in Yellowdig

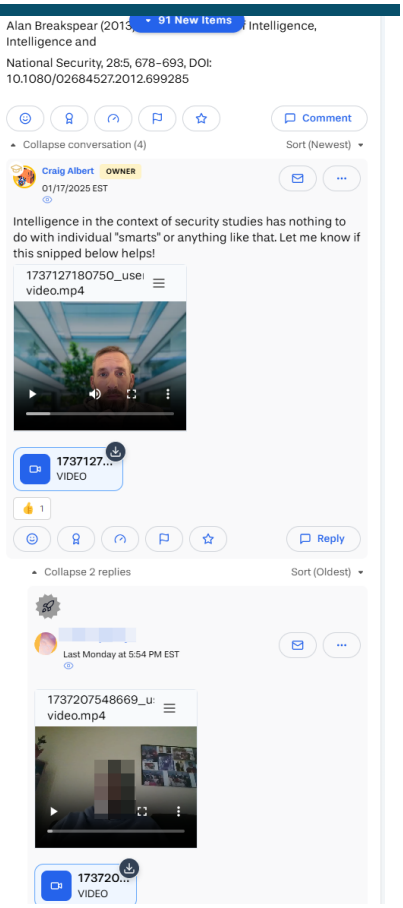


Figure 10: Embedded Simulation Wrap-up

Simulation Wrap: Reflection prompts and key takeaways for self-assessment. This section encourages learners to connect academic knowledge with practical experiences and articulate their learning journey. Through structured reflection, learners analyze their experiences, consider the impact of their actions, and identify areas for improvement, enhancing their ability to transfer insights to future challenges.

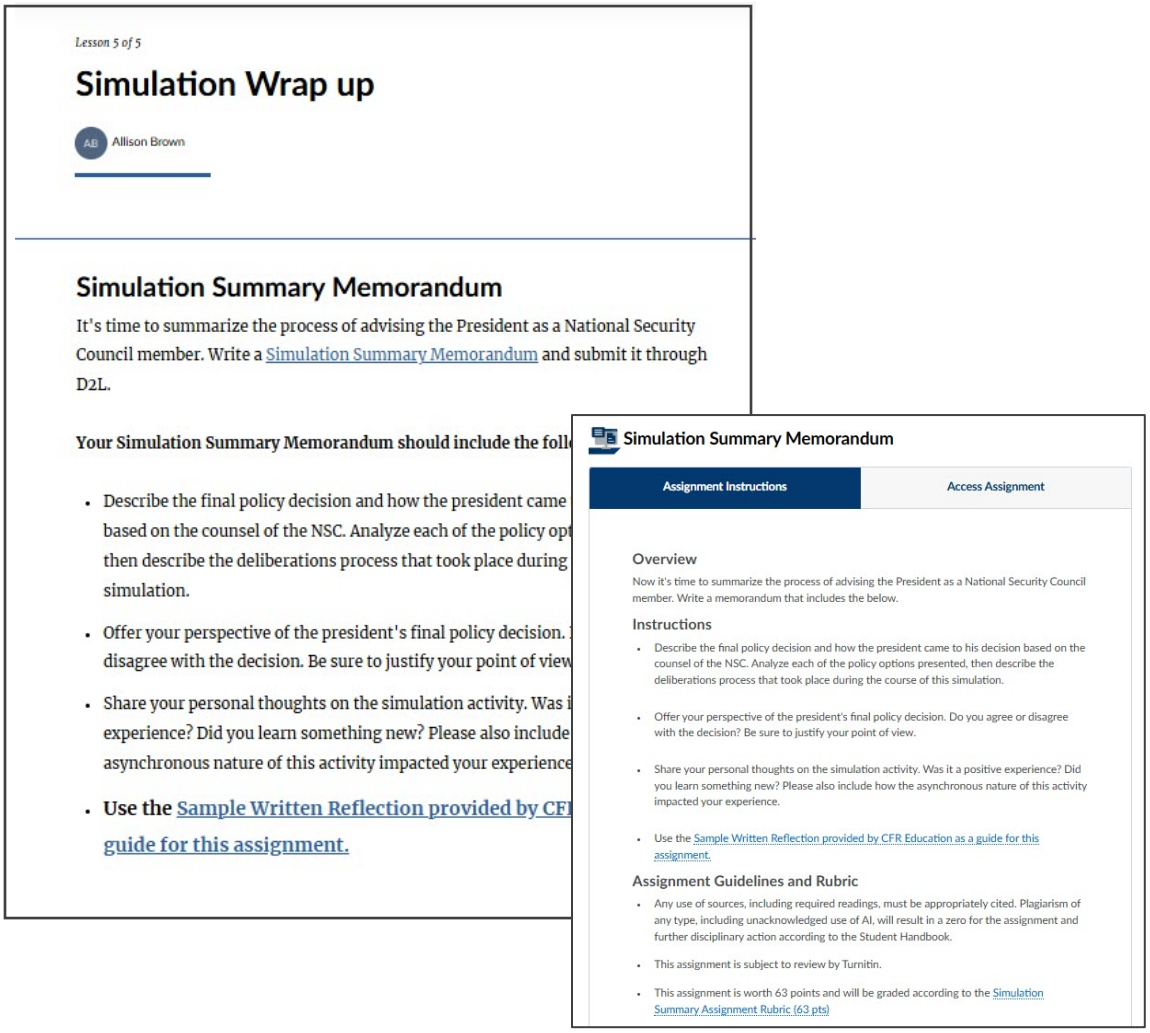


Figure 11 Community Health Data Dashboard for Yellowdig.[2]
Through the Community Health Dashboard, instructors can access detailed metrics, such as *total posts*, *total comments*, *total reactions,* and the c*onversation ratio*. The conversation ratio reflects the extent to which students are paying attention to each other's work and engaging in back-and-forth conversation.

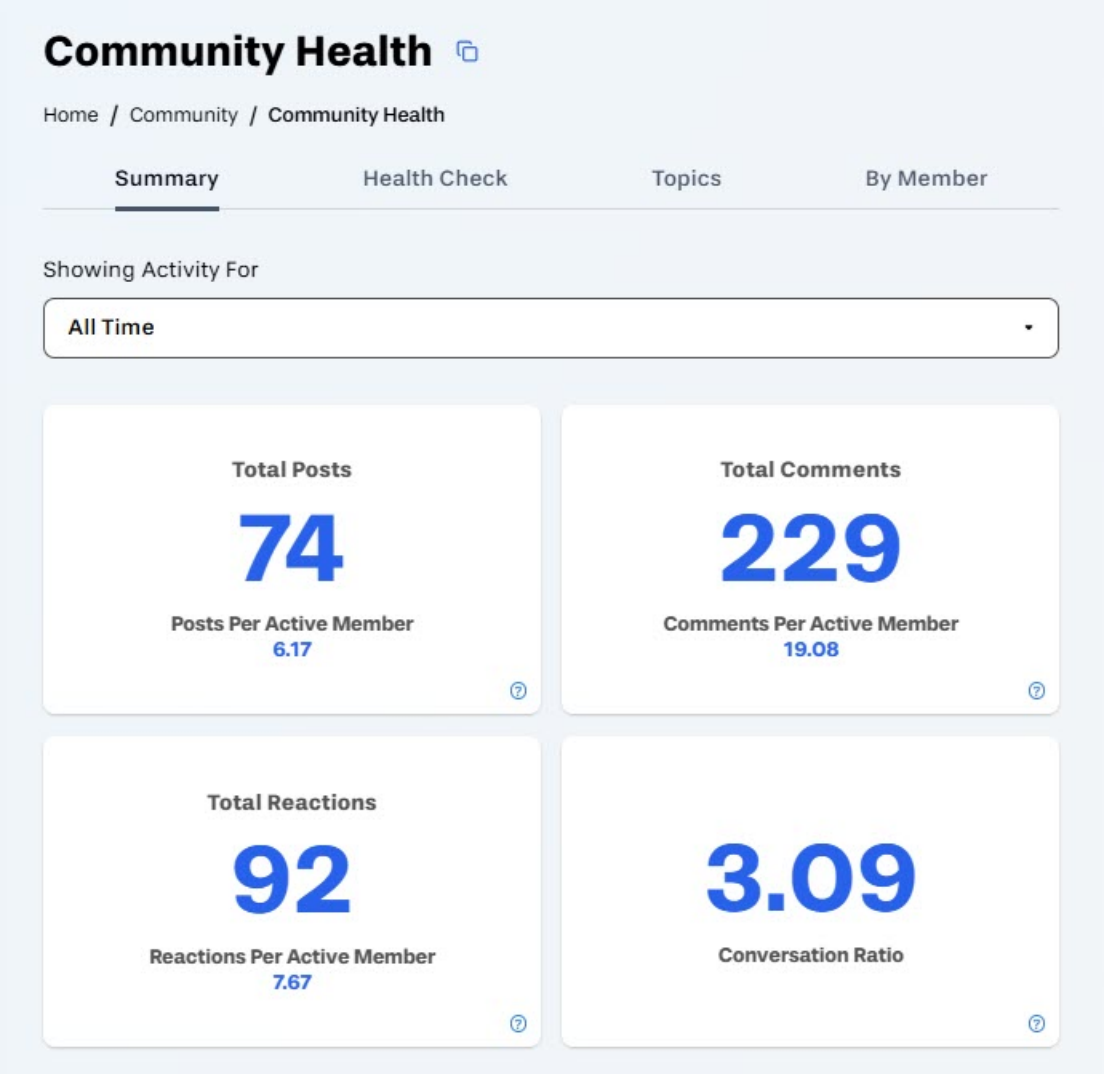


Figure 12 Weekly Yellowdig Community Health Conversation Ratios
During the week of the simulation (Week 8), the conversation rate was 4.36. This is a significant increase from the conversation rate of the rest of the semester and provides some evidence that the simulation works to increase student engagement.

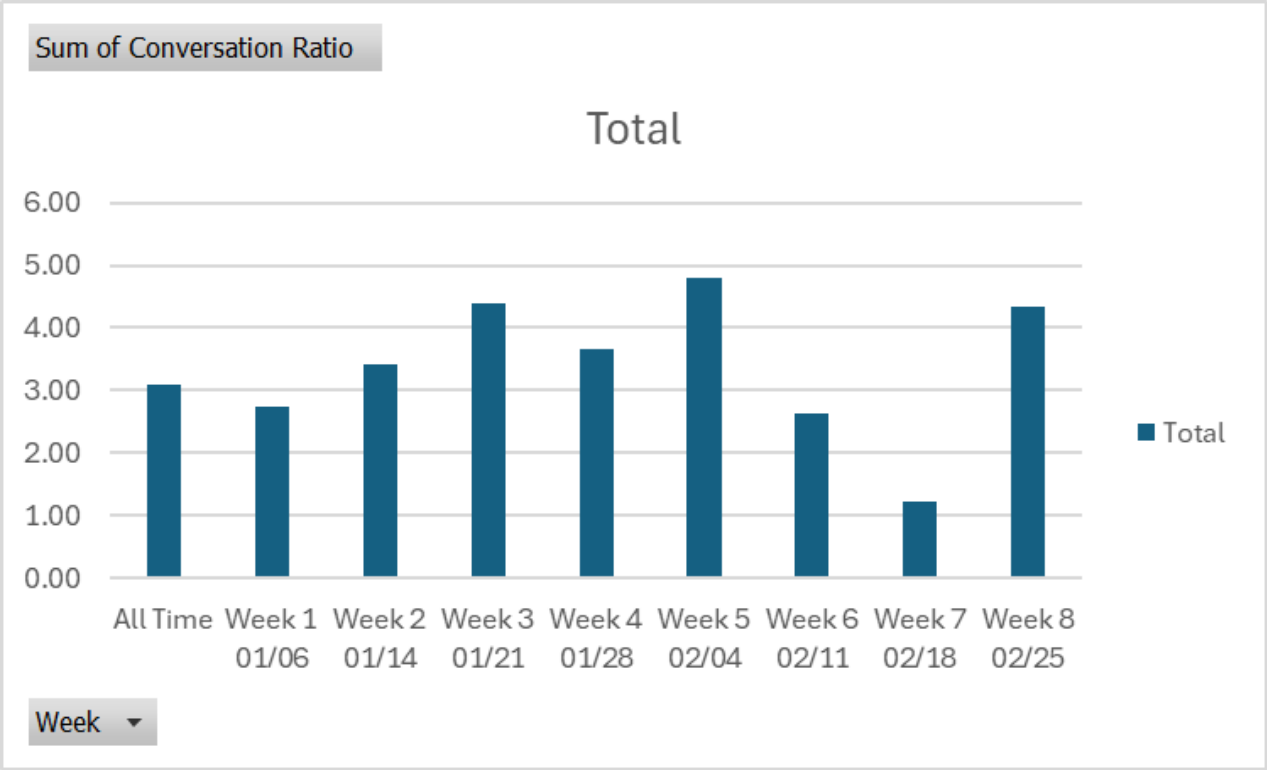


Figure 13 Community Health Composite Scores Yellowdig 1/27/25

The green, yellow, and blue bars display the data from this single course. This data illustrates how this learning community is performing in comparison to global Yellowdig scores. The instructor can see that the community is performing well related to length of posts, average links to additional resources shared and the number of multimedia-based posts (using video or audio to comment or post).

Figure 14: Course level of engagement. The Network Graph Visualization & Table allows instructors to analyze community interactions at both the whole class and individual student levels (Figure 13). This feature enables instructors to proactively recognize at-risk members and implement timely interventions to support their participation (Miron 2023). It visualizes connectivity, highlighting key discussion leaders who engage with multiple peers, as well as individuals who may not be actively connecting with others and may require additional support.

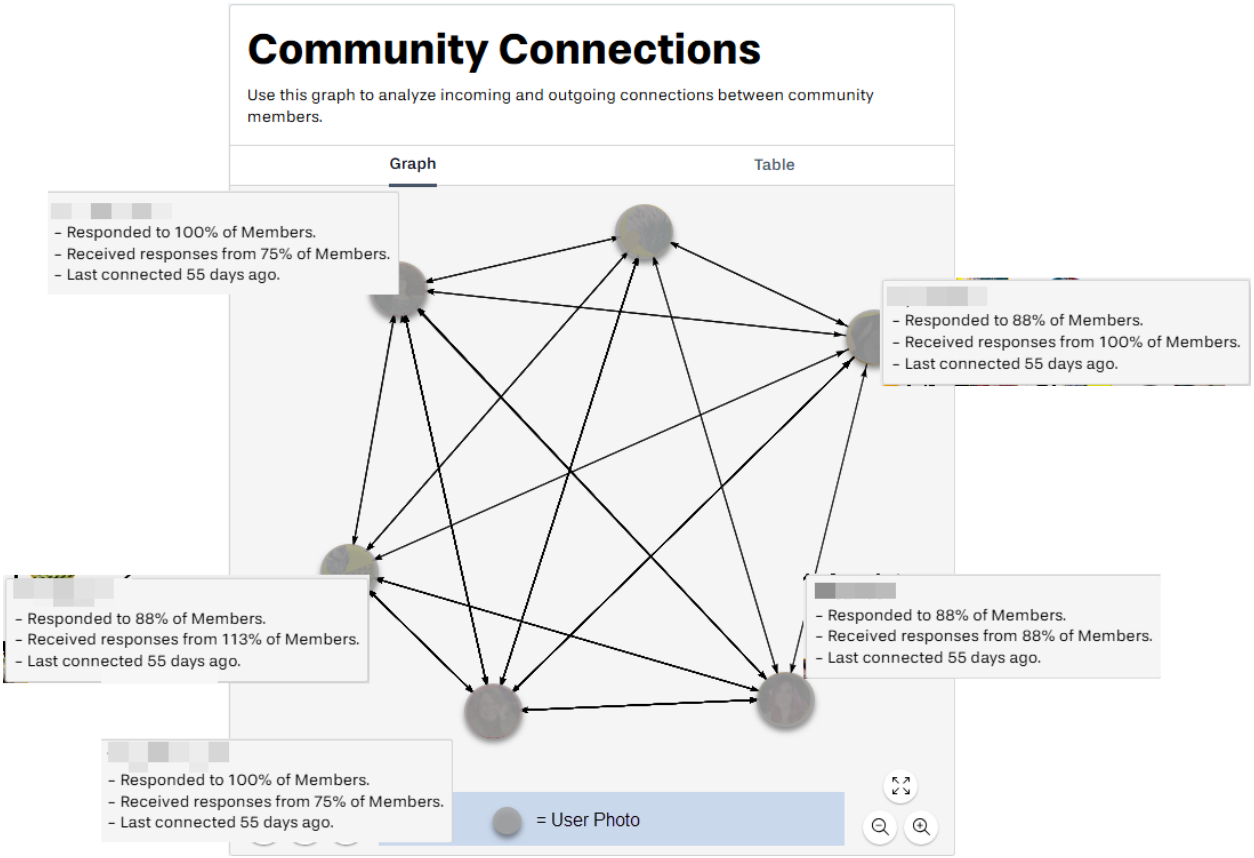


Figure 15: Activity Log
The activity log illustrates nicely the total number of posts, comments, reactions and accolades for each week of the course. One can see that in all but one of the areas, week 8 yielded the highest numbers for the activity log.

https://doi.org/10.33774/apsa-2025-32fsj-v2 **ORCID:** https://orcid.org/0000-0003-3225-9386

Activity Log

Week	Post	Comments	Accolades	Reactions
All Time	74	229	66	92
Week 1 01/06	16	44	6	6
Week 2 01/14	7	24	8	14
Week 3 01/21	5	22	6	16
Week 4 01/28	6	22	5	6
Week 5 02/04	5	24	0	9
Week 6 02/11	8	21	4	11
Week 7 02/18	9	11	9	3
Week 8 02/25	14	61	28	25