In the Classroom

The Imperative of Student Integration in Faculty Research Projects: A Pedagogical Case Study in Digital History

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Traditional pedagogical models, at times, are inadequate for equipping students with real-world skills. A shift towards integrating students into faculty-led research is essential, as demonstrated by the Coronado Muster Roll project. In this project, students use virtual reality technologies to create immersive experiences that explore the complex relationships between Spanish and Indigenous communities during Francisco Vázquez de Coronado’s 1540 expedition. A specific assignment within the course tasks students with developing digital narratives. The muster roll itself is revealed to be more than just a list; it serves as a snapshot capturing the depth and complexities often lost in grand narratives. It shows that both Spanish and Indigenous communities had complex alliances and mutual interests. This hands-on, virtual reality-based assignment not only deepens students’ understanding of historical intricacies but also provides invaluable applied research and creative skills. The integration of students into faculty research projects, like the Coronado Muster Roll is not just a pedagogical strategy; it is a necessity in today’s rapidly evolving educational landscape.

Introduction

In the ever-evolving landscape of higher education, the traditional pedagogical model that positions students as mere recipients of knowledge is increasingly inadequate. This article argues for the necessity of integrating students into faculty-led research projects, drawing from my own experience in teaching the course “Digital History: Virtual Reality Worlds, Digital Narratives, Serious Games,
As an educator, I have long been interested in the transformative potential of digital humanities in the study of history. My course, “HIST 3100 Digital History: Virtual Reality Worlds, Digital Narratives, Serious Games, & the Internet,” first offered in Spring 2019, aimed to explore digital forms of humanistic and historical research. The course focused on a variety of digital mediums, including virtual worlds, video games, digital storytelling, and Internet-accessible historical data. This paper will discuss the benefits of integrating students into faculty research projects, using the course’s structure, objectives, and assignments as a case study.

The learning objectives of the course were meticulously designed to align with real-world research projects. Students were taught how to identify, categorize, and evaluate different forms of digital explorations. They were also trained to formulate research questions for digital humanistic investigation and conceptualize digital projects. These objectives were not merely academic exercises; they were skill-building activities aimed at making the students more industry-ready. One of the cornerstones of my teaching approach is the emphasis on personal best efforts, improvement, and engagement. When students are actively involved in research projects, they are more likely to be engaged and show improvement over time. This not only enhances their learning experience but also contributes to their personal and professional growth.

Crucial to my approach is a focus on real-world experiences that match and mimic what our undergraduates will experience after leaving the university. The course included a variety of assignments designed to investigate, document, and synthesize digital data for

1 Special thanks to Ian Torres, Master of Arts in History, for his prior assistance as a graduate teaching assistant with the development of a master script that told the story of the muster roll.
historical events, places, and personages. These assignments ranged from commentaries and VR world tasks to digital storytelling and website development. This hands-on approach provides students with invaluable experience, which is crucial for understanding the complexities and nuances of real-world projects.

The course required students to work on a VR depiction of a Spanish military formation and expedition, digital storytelling videos, and an interactive, data-rich website. This collaborative approach mimics the real-world work environment, teaching students the importance of teamwork, communication, and project management.

**Collaboratively Creating a World: The Coronado Muster Roll of 1540**

In this specific course, we concentrated on the 1540 muster roll and military expedition of Francisco Vázquez de Coronado as he and many Spanish and Indian allies sought to explore present-day Arizona and New Mexico. This historical event served as the backdrop for various student assignments, including a three-act digital narrative script that describes activities in a virtual world.

**Students Directing Creation**

Via the assignment titled “HIST 3100: Digital Narrative (Storytelling) Task” (See Appendix), student teams were directed to generate immersive forms of historical storytelling. The assignment is broken down into three main components: Storyline, Mapping, and Sequencing. In the Storyline section, students are required to lay out a narrative arc that reveals valuable information about a specific culture or time period. They must summarize their story in 150-200 words and list 2-3 knowledge objectives, such as understanding social status relationships. The Mapping component requires students to draw a 2D map of the environment where the story takes place, including both human-made structures and natural features. Students must also describe the weather, time of day, and soundscape in 100-200 words. Lastly, the Sequencing section asks students to create a chronological list of scenes, complete with esti-
mated timestamps and descriptions of actions and sounds. This assignment allows for the incorporation of various research elements, such as social structures, cultural norms, and geographical settings, into a digital narrative format. This not only enhances the students’ understanding but also provides a dynamic way to present academic research. The multi-faceted nature of the task—incorporating text, visuals, and sound—makes it a comprehensive exercise in digital humanities, aligning well with research methodologies used in modern academia. Using one master digital narrative script, we proceeded to tell one version of the 1540 muster roll.

**Act 1: Preparing for Departure with Grandeur, Fanfare, Indigenous Alliances, Boisterous Activity**

In Act 1 of the digital narrative script, the focus is on the morning of February 22nd, 1540, when men gathered in Compostela in Nueva Galicia for the Cibola expedition led by Francisco Vázquez de Coronado (See Figure 1.). This act serves as a vivid tableau that sets the stage for the complex relationships between the Spanish and Indigenous peoples involved in the expedition. Before constructing Act 1, students used Legos to reconstruct potential city layouts. They debated and chose the best configuration based on historical sources and real topographical constraints. This physical exercise brought to life the intricate spatial dynamics. As Coronado and Mendoza make their way to Compostela, they are accompanied by a long parade of nobles, wealthy men, royal officials from Mexico City, and their servants, along with a baggage train, horses, and pack animals. (See Figures 2 and 3.) Notably, the parade also includes 1,500 Indigenous allies. The parade is designed to show grandeur and fanfare, “in keeping with knightly showmanship.” This spectacle is not just a display of Spanish might and wealth, but it also serves as a powerful message to the Indigenous peoples about the kind of power and resources the Spanish could mobilize.
Figure 1: Lego City Layout: Three Maps
Figure 2: Men Gathered in Compostela in Nueva Galicia for the Cibola expedition led by Francisco Vázquez de Coronado
The inclusion of 1,500 Indigenous allies in the parade is a significant detail that adds complexity to the narrative. Unlike many colonial expeditions that marginalized Indigenous peoples, this parade explicitly includes them as allies. This reflects a more nuanced relationship between the Spanish and Indigenous peoples, one based not just on subjugation but also on alliance and mutual interest. The presence of such a large number of Indigenous allies indicates that the Spanish were not unilateral actors in this historical setting; they had to negotiate complex alliances with various Indigenous groups. (See Figures 4, 5, and 6.)

Upon arrival in Compostela, Coronado and Mendoza find the town transformed into a “tent city,” capable of holding over 500 persons, some 1000 horses and livestock, and notably, accommodations for the 1,500 Indigenous allies. This transformation is not just the work of the Spanish; it also involves the labor and resources of the Indigenous peoples in the area. The script describes the town as having “perhaps a score of houses,” indicating that this was a frontier area where Spanish and Indigenous cultures met and interacted, often in complex and fraught ways.
Figure 4: Spanish “Tent City”

Figure 5: Spanish Compostela
The grand entry into Compostela sets the stage for future interactions between the Spanish and Indigenous peoples, interactions that would be marked by a complex interplay of power dynamics, cultural exchanges, and mutual dependencies. The Spanish were not just conquerors; they were also newcomers in a land with its own histories, cultures, and politics. Their success or failure would depend not just on their military might but also on their ability to understand, negotiate, and sometimes manipulate the complex social and political landscapes they encountered, landscapes in which Indigenous peoples were key players.

**Act 2: The Muster Roll as a Microcosm of Spanish-Indigenous Relations**

Act 2 of the digital narrative script focuses on the muster roll, a ceremonial event where men are lined up in military formation for inspection and documentation. The muster roll serves as a critical moment that reveals the diversity within both the Indigenous and Spanish communities, offering a nuanced understanding of the relationships between these two groups.

One of the most striking details about the muster roll is the significant presence of Indigenous warriors, who vastly outnumber their
Spanish counterparts. This is not a minor detail; it fundamentally changes the narrative from one of Spanish conquest to one of complex alliances and mutual interests. As we modeled the virtual environment, we quickly realized it was impossible to easily integrate all the Indigenous warriors into the scene. We only depicted 80 warriors (highlighted in blue in Figure 7) to demonstrate the clash of actual participants in the expedition --a total of 289 Spaniards versus 1,500 Indigenous warriors. The warriors are not mere subjects of Spanish rule; they are allies participating in the exploration of northern Mexico and New Mexico. Their significant numbers indicate that various Indigenous communities chose to engage with the Spanish in ways that were strategic and, in some cases, cooperative.

The muster roll also reveals that the Spanish were far from a monolithic group. They came from both high and lower-status communities in Spain. Some were nominal Catholics, converts to Christianity, while others were secret Jews evading the Spanish Inquisition. This religious diversity adds another layer of complexity to the Spanish-Indigenous relations, as it implies varying degrees of commitment to the religious motivations often cited for the Spanish expeditions.

Interestingly, some of the lower-status Spanish did not have their own Spanish weapons and instead wore Indigenous cotton armor and used obsidian battle axes. (See Figure 8.) This detail is toll-
ing because it shows a level of integration and adaptation to local conditions and resources. It also suggests that the Spanish were not just imposing their ways on the Indigenous peoples; they were also adopting Indigenous technologies and strategies.

The muster roll is not just a list; it’s a snapshot that captures the depth, dimension, and shades of meaning that are often lost in the grand narratives of conquest and colonization. Within these grander currents, individual human beings lived, each contending with the complexities of their time in their own ways. The muster roll shows some of the ways that some persons, both Spanish and Indigenous, went about contending with those currents.

**Act 3: The Oath-Taking Ceremony and Its Implications for Spanish-Indigenous Relations**

Act 3 of the digital narrative script focuses on the oath-taking ceremony, a pivotal moment that serves as the formal commitment of the expedition members to their mission. (See Figures 9 and 10.)
This act, while seemingly centered on the Spanish leadership, offers subtle yet profound insights into the complex dynamics between the Spanish and their Indigenous allies.

Figure 9: Coronado and Men

Figure 10: Mendoza Preparing to Receive Coronado

Mendoza, dressed in his finery, delivers “a short eloquent speech” to the men, emphasizing the loyalty they owe to their general, Coronado. While the speech is directed at the Spanish, it’s impor-
tant to consider that the 1,500 Indigenous allies are also a part of this audience. Mendoza speaks of the “benefits this expedition might afford, through the conversion of those peoples,” subtly acknowledging the Indigenous presence and their potential conversion to Christianity as a part of the Spanish imperial project.

Coronado takes the oath first, swearing allegiance to the mission and committing to “cherish the service of God and of his Majesty.” Following him, the noblemen, camp-master, standard bearers, captains, and the rest of the men also take a similar oath. The script specifies that this excludes the Indigenous allies and servants, which raises questions about their role and commitment to the expedition. Are they considered inferior because they do not partake in the oath, or does their significant numerical presence imply a different form of commitment, one not bound by Spanish legal and religious formalities? (See Figure 11.)

The oath-taking ceremony is a moment that crystallizes the complexities of loyalty within the expedition. While the Spanish swear
formal oaths, the Indigenous allies, who vastly outnumber the Spanish, have their own forms of commitment that may not align entirely with Spanish objectives. Their loyalty could be to their own leaders, communities, or strategic goals, adding another layer of complexity to the expedition’s dynamics.

The oath-taking ceremony, like the muster roll, serves as a snapshot within the grander currents of history. It shows how individuals, both Spanish and Indigenous, navigated these currents in their own ways. While the Spanish may have had the legal and religious frameworks of oaths to guide them, the Indigenous allies had their own sets of beliefs, customs, and political structures that influenced their participation in the expedition.

**Conclusion**

Act 3 of the digital narrative script serves as a compelling conclusion to the series of events leading up to the expedition. While it may appear to focus on the Spanish leadership, a closer look reveals the nuanced ways in which it also reflects the complex relationship between the Spanish and their Indigenous allies. The oath-taking ceremony is not just a Spanish affair; it’s a moment that encapsulates the multifaceted loyalties and commitments that characterize this historical expedition.

The integration of students into faculty research projects, like the Coronado Muster Roll is not just a pedagogical strategy; it is a necessity in today’s rapidly evolving educational landscape. Students are compelled to apply research to tangible outcomes, as presented in our website, https://grants.uccs.edu/augmented-reflections/. The course “Digital History: Virtual Reality Worlds, Digital Narratives, Serious Games, & the Internet” serves as a case study in how such integration can be effectively achieved to enhance learning outcomes and provide students with invaluable real-world experience via HIST 3100: Digital Narrative (Storytelling) Task. I hope colleagues consider adopting similar approaches to prepare students for the challenges and opportunities that lie ahead.
Roger Louis Martínez-Dávila is a Professor of History at the University of Colorado, Colorado Springs. He has also served as a CONEX Marie Curie Fellow at Universidad Carlos III de Madrid. Martínez-Dávila is the author of several impactful books and articles, including Creating Conversos: The Carvajal–Santa María Family in Early Modern Spain and Fractured Faiths: Spanish Judaism, the Inquisition, and New World Identities. His research interests are broad and interdisciplinary, spanning medieval Spain, interfaith relations, and digital humanities. He has led multiple digital projects, such as “Deciphering Secrets: Unlocking the Manuscripts of Medieval Spain” and the “Immersive Global Middle Ages Advanced Digital Humanities Institute,” which was funded by the National Endowment for the Humanities. His work is notable for its innovative pedagogical approaches, such as the use of virtual reality and digital narratives, to enhance both student learning and research outcomes.

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HIST 3100: Digital Narrative (Storytelling) Task

Digital storytelling is the process we use to construct a more immersive history using video and imagery, action and motion, voices and soundscapes, and text. What are its discrete components?

➢ **Storyline.** Each narrative lays out a story arc that reveals valuable information about a people and culture during a specific time period in history. Your storyline should explain what we learn by experiencing these persons, objects, environment, and cultural-linguistic ideas.

➢ **Mapping.** We must indicate how our environment (or, “level”) will be laid out with human-built structures and natural geographic features (trees, rocks, grass, etc.). Also consider weather, day/night lighting, and sounds.

➢ **Sequencing.** We must indicate when, where, who, and how our story elements (people, animals, objects) will be displayed and moved as the story unfolds.

**1. Tell the Story**

Step 1.1. Summarize your story using 150 to 200 words.
Step 1.2. List 2 to 3 knowledge objectives.
   For example, “Understand social status relationships.”
Step 1.3. List the primary actors (people) in the story.

**2. Map the Environment**

Step 2.1. Draw and label a 2D map of your environment.
   ➢ Be sure to try to draw with a scale (i.e. 1 inch = 1 foot)
   ➢ Include human-built structures, i.e. houses, barns, buildings, carts, tools, and any object that humans use (create a key of symbols as needed)
   ➢ Include natural geographic features, i.e. depict any large clusters of trees, grass, rocks, water, streams (create a key of symbols as needed)

Step 2.2. Describe the weather, time of day, and soundscape. Use 100-200 words to describe if it is rainy, misty, sunny, night, dusk, morning, etc. List any natural sounds found in the environment like animal calls and movement, wind passing through trees or spaces, etc.

Step 2.3. Create an image and soundscape bank (folder) with visual and references. Use Internet hyperlinks to images and sounds you have located or that are noted in our shared database. Paste low-resolution images in your document.
3. Sequencing the Story Actions

Step 3.1. Create a list of chronological sequences of scenes of action, text, and sound (speaking). Think of each sequence as an act in a play or movie.

➢ Label each sequence with a numeral, i.e. “Sequence 1”.
➢ Attempt to estimate “timestamps” (minutes and seconds), or when the sequence begins and ends during the story. For example, “Timestamp Start: 1:00, Timestamp End: 2:15”. Remember, you will need to use your imagination to estimate how long each sequence will take to play out.

Step 3.2 For each sequence, label and describe the actions of persons, objects, and animals.
➢ Use up to 200 words to describe the actions.
➢ Indicate when individual speaking occurs or sounds are played.
➢ Use Internet hyperlinks to youtube videos or animations as examples.

Step 3.2 For each sequence, describe any text that should appear typed on the screen.
➢ Remember that limited amounts of text can be shown on the screen with an accompanying action.
➢ You may need to create an individual sequence with only text displayed on the screen to tell a portion of your story.

Step 3.3. Draw and label the movement of each sequence through your 2D map of your environment.
➢ Use arrows and lines to indicate how persons, animals, and objects move through the environment at each sequence.