...amb. to Pieter Paul Rubens),
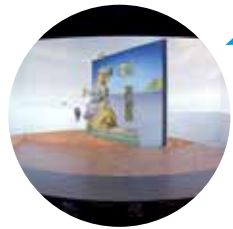and the Brazen Serpent, 1618-1620

THE COLLEGE'S
DIGITAL SCHOLARS
ARE TAKING
KNOWLEDGE INTO
NEW REALMS —
LIKE THIS RE-CREATION
OF A LOST SPANISH
ROYAL GALLERY.

STEPPING FORWARD
INTO THE PAST

By Lauren Sieben

The Prado Sala de la Reina Isabel photo that was the inspiration for Dr. Afinoguénova's project.

In 2014 Dr. Eugenia Afinoguénova took her class to view Salvador Dalí's *The Madonna of Port Lligat* at the newly opened Marquette Visualization Laboratory (MARVL).

The experience was eye-opening — not just for Afinoguénova's students, who moved in and around a 3D version of Dalí's surrealist depiction of the Virgin Mary, but also for Afinoguénova, who left the lab wondering if she had found a new way to take her research to the next level.

"When you see something visualized in 3D, it gives you ideas that otherwise you would not have," Afinoguénova says (pictured left). Her students, for example, noticed the light coming in from both sides of the painting — a detail that would be easy to miss if they had been viewing the original hung up on a wall. "This is what made the light go on in my brain," Afinoguénova says.

Afinoguénova was already deep into her work on a book, since published, about the history of the Prado Museum in Madrid. While combing through the art museum's archives, she discovered a photograph taken around 1875 that offered a rare glimpse into the Prado's Sala de la Reina Isabel — a room that was once the crown jewel of the museum, created for Queen Isabel II and home to the Prado's most prized pieces. But in 1893, the room was reformed, and many paintings were relocated or moved out of the museum.

The old photo showed only a portion of the room in its original state. But fresh off her visit to Dalí's Madonna at MARVL, Afinoguénova wondered if she could use virtual reality to re-create the old photo and show what it was missing.

The result is a virtual reality reconstruction of the Sala de la Reina Isabel that Afinoguénova created in collaboration with MARVL. The virtual gallery features the paintings that were visible in the photograph, and Afinoguénova fills in the missing sections using secondary sources to help reveal what the black-and-white photo didn't show. Today, students and faculty can peruse a life-size, 3D re-creation of the gallery at MARVL, zooming in to examine each work of art in detail, down to the texture of the picture frame.

The experience isn't constrained to campus: Users anywhere can partake in the same 3D experience using virtual reality headsets that connect to a VR-enabled website. The project team also created a web-based version of the gallery that's accessible by computer or phone.

Afinoguénova's project is one example of how digital tools are helping scholars view the humanities in a new light, moving their research off the page and into the digital realm. Libraries are also playing an important role in facilitating digital scholarship — at Marquette, the Raynor Memorial Libraries offer digital scholarship consultations on tools including 3D printing, e-publishing and data visualization. Outside of the academy, institutions like the New York Public Library are digitizing their collections, which is not only helpful to scholars but also brings documents from dusty basement archives into the public domain.

At Marquette, students are also taking the lead on digital projects. As the 50th anniversary of Milwaukee's open housing marches neared in 2017, Dr. James Marten, professor and chair of history, recruited two student interns to dig through university archives and learn about the political climate on campus in the late 1960s.

Lillian McGuire, previously known as Dolan McGuire, Arts '18, then a senior, and Angela Scavone, a junior majoring in secondary education and history, spent the fall 2017 semester working on Protest@MU, a digital project that documents the history of dissent on campus. A web-based timeline plots protests from 1964 to 1971, and an interactive map offers an hour-by-hour view of the response of Marquette students to the 1970 shootings at Kent State University. It's one of several digital projects students have tackled under Marten's guidance.

McGuire also worked on a digital project for the epidemic-focused Black Death course taught by Dr. Lezlie Knox, associate professor of history. Using Google Tour Builder, McGuire brought public records and newspaper archives to life to illustrate the response to New York City's polio epidemic in 1916. Both the protest project and the polio project

gave McGuire a new understanding of the study of history, she says.

"It personalized and localized history in ways that traditional academic research doesn't do very well," says McGuire. "When you work with digital media you really are reminded constantly of the fact that you're studying real people and the real events that actually happened to them."

Katherine Stein, a senior majoring in English and history, developed a digital scholarship project for Knox's course on the Black Death. Using a WordPress website, she examined the roles various epidemics play in children's literature. Instead of following the more linear format of a traditional paper, Stein says the site allowed her to "broaden the scope of my research and tackle a whole bunch of disparate points in a more comprehensive way." An interactive timeline visually expressed the chronology of different diseases, authors and publication years, giving more context to her findings. Not only did the medium make the research more digestible and interactive, but it continues to make it more accessible. The site has received nearly 5,800 views from 69 different countries. And Stein has since applied the technology in other courses.

For scholars accustomed to working on research projects as a mostly solitary pursuit, digital projects also bring new opportunities to collaborate, along with some challenges.

"It was a huge learning curve," Afinoguénova says. "It's a completely different process in terms of timing, communication … even how you think." Ultimately, the interdisciplinary collaboration makes for a more interesting final project, Afinoguénova says. Her related book, *The Prado: Spanish Culture and Leisure, 1819-1939,* received the 2019 Eleanor Tufts Award, leading to her delivering a lecture introducing her book in Spanish translation to an audience of over 300 people at the Prado Museum.

Although digital humanities projects come in a wide range of formats, from 3D VR experiences to interactive maps and timelines, the projects are united by their ability to democratize scholarship and open access to documents that would otherwise be relegated to archives, Marten says. "Rather than simply being 'cool' projects, they actually add to our understanding of an event or an idea," Marten says. "They are able to present evidence in a way that text cannot."

Tour faculty and student digital scholarship

- Virtually tour the Prado's Sala de la Reina Isabel at prado.nfshost.com.

- Find Protest@MU at protestatmu. wordpress.com.
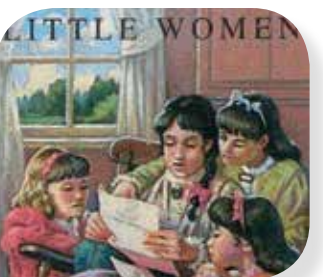
- Explore depictions of the epidemics in children's literature at epidemicsinliterature.wordpress.com.

- Find a mapped guide of the response to New York City's polio epidemic in 1916 at epublications.marquette.edu/ dslgallery/3.