RESEARCH LIVE
The Center for Faculty Scholarship
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CAPTION: Miniatures and photographs by Sam Tobin.

# Observations from an Analog Periphery

BY ELISE TAKEHANA

While Sam Tobin teaches in the Game Design program, it was not until later in his academic career that examining game culture came to the forefront of his thinking. He describes himself as a "Walter Benjamin-head" schooled in a mishmash of sociology of media, Frankfurt School theories, and 1990s cultural studies. As a doctoral student, he "wanted to lean into the idea that The Arcades Project could have been about actual video arcades as opposed to Parisian covered shopping halls."

At the time, Tobin was responding to contemporary philosophies of new media and their attachment to using digital fine art as exemplars of a new media age. His response: "There's actually new media that people really interact with, aside from the 30 people who saw this installation at an art fair." Tobin wanted to explore how new media affect social and urban practice, and what he saw were people of all ages playing handheld video games in the New York subway. That was the immediate, lived, new media practice that stood in high relief.

Perhaps in contrast to many scholars in game studies, Tobin does not think of himself as a "gamer," a label he finds problematic in and of itself. "I don't like games. I don't like people who play games. I don't dislike them. I'm not an advocate. If I've had any success, it's because I'm an inside outsider." At the same time, Tobin is not a gaming neophyte. "I do find it hard to pass an arcade cabinet, and I always have, without playing. While I will read a role-playing game book for fun tonight, I don't just study things that I like." As a scholar, Tobin studies discourse. "I am interested in how people make sense of these issues not how I make sense of them."

While coming to Fitchburg State has shifted some of his work, it has ultimately made him even more aware of this inside outsider role. "I'm seeing things from the perspective of someone who interacts with my students, and my students always are going to care more than I do." His last two papers have been collaborative efforts with students.

"The Practice of Oldhammer," which Tobin co-authored with graduate student, Ian Wiliams, looks at player communities that have turned to earlier versions of miniatures, play styles, and rules of *Warhammer* as a sort of nostalgic return to craft that existed before Games Workshop

corporatized and thus "professionalized what was a kind of dodgy, fly-by-the-seat-of-your-pants shed- or garage-based industry. The design changed, and the rules changed. It wasn't that no one was trying to make money beforehand, but it became solely about that. At least this is some of the language that Oldhammers use."

While Tobin and Williams recognize some elements of backward-oriented nostalgia tied to personal losses of one's childhood, they see the discourse community as more concerned with what they call a "creative nostalgia that is about thinking and enacting what might have been, as opposed to reclaiming or restoring this thing that we know never existed." Instead, Oldhammer players present a "nostalgia for alterity."

For Tobin, the game miniature itself is a complicated object. "It's like statues are fascist, miniatures are progressive. Scale matters, right?"

CAPTION: Miniatures and photographs by Sam Tobin.

While it may be easy to see these war game miniatures as militaristic, Tobin realizes that "If there's one thing Oldhammers are interested in, it is parody, tongue in cheek, over the top hodgepodge and bric a brac cobbled together of different existing ideas like Judge Dredd and Star Wars. Young people today, if they get it wrong, think that *Warhammer* is supposed to be serious as opposed to, frankly, silly."

Stepping back from the discourse of players, Tobin and undergraduate co-author Nicholas St. Jacques wrote "Death Rules" as a rules analysis of player character death in tabletop role-playing games. Isolating the rules from the lore and narrative pushed Tobin into looking at texts rather than people. When and how player characters can die have a strong impact on play styles and produces their own climactic moments. This attention to rules feels more pertinent now as game designers are more inclined to ask "do the mechanics of your game, match what you think you want to communicate through the game?" However, making critical games is still hard when "a lot of role-playing and digital games tend to import wholesale mechanical underpinnings that have political, economic, and ethical implications."

While he would not have thought to write such a paper before, his teaching experience at Fitchburg State brought him there. "I teach an analog game design class. I teach two sections of it every semester, and will until I die, and it means that I think about rules constantly, in a way that I never have before. I've been teaching rules and instructions, so why not study them?" FSU has helped Tobin move his research from video games to analog games, which has a growing area of research.

At this point, Tobin is at a pivot point in his scholarship. After a COVID-induced pause, he is looking forward to writing another paper with Williams on the table's role in tabletop games. "The table is literally beneath notice. It's based on my paper called Cocktail Cabinets, which was about sit-down arcade-style games and gaming furniture" He is also interested in developing an edited collection on miniatures and even revisiting drafts on arcade culture.

# FSU ROTEL Grant Winners Will Develop OER Resources

### AMY MCGLOTHLIN & JENNIFER BILL

Current Music Appreciation texts focus solely on European art music prior to the year 1900. Most texts exclude the significance of women and minority composers and performers and only briefly touch upon 20th century and later, folk, jazz, pop and indigenous music. The current available textbooks for this course have a narrow tradition of teaching western European music history and expect the students to relate to this "classical" music. Only studying music from one specific culture does not inspire today's students. The course needs to include musical understanding from a much broader scope of cultures and genders.

Our OER course materials will include musics from every continent and diverse cultures. Composers and performers of every gender will be represented equally. Assignments and readings will explore music as a response to political and cultural conflicts. Genres from classical, popular, and folk will all be represented in readings, listening, discussions, and assignments. Allowing students to more intensely connect to music they already know will motivate them to explore other musics in a deeper way and have a true appreciation for music as an art form.

### MICHAEL HOVE

Biological Psychology examines the biological basis of behavior, thoughts, and emotions and is an extremely broad field. Many textbooks cover 20-25 different topics in minute detail. The intricacies are important particularly if going to grad school or med school, but most students will forget them soon after the class. The overarching goal of my project is to adapt and curate Open Education Resources for my new Biological Psychology class that are relevant and applicable to students, especially those from marginalized or minoritized groups.

I will develop eight modules that have direct relevance to students, especially those from minoritized groups. For example, in a "Genetics and Epigenetics" module, I will develop a problem set that looks at how environmental factors such as air and water pollution interact with the genome. One example is how living close to a freeway while in utero leads to higher rates of autism in childhood. Another module on "Language and Lateralization" will cover the standard overview of how language is processed and lateralized to the left hemisphere. I will then focus extensively on Spanish/English bilingualism and its effects on brain structure, function, and thought. I am aware that covering areas that disproportionately affect minoritized groups and low-SES communities might reinforce negative stereotypes, so I will consult with librarians, colleagues, and instructional design specialists to avoid any misinterpretation.

### RACHAEL NORTON & PETER STAAB

For more than a decade, many instructors in the Mathematics Department have been using WeBWorK, an open-source online homework system. This system is completely free for students, providing an equitable alternative to paid online homework systems. Moreover, WeBWorK has a large problem bank called the Open Problem Library that consists of more than 50,000 problems, written by instructors across the world and available to all instructors who use WeBWorK. The majority of these problems are practical, applied problems, many of which are outdated and could benefit from revisions with a diversity lens.

We will take existing WeBWorK problems written for Applied Statistics and adapt the problems for cultural relevance, which, we believe, will increase student interest in the problems, foster a sense of belonging, and promote antiracist pedagogical practices. We intend to rewrite any problems that are not purely calculation-based to consider at least the following:

- Inclusion of names of POC.
- Inclusion of multiple genders.
- Centering marginalized people and perspectives and decentering whiteness.
- Appropriate cultural relevance in story problems.
- Inclusion of images of people from historically underrepresented groups.

After the problems have been rewritten, we will submit the results to WeBWork to benefit the wider international community that uses the platform.

### COLLIN SYFERT

Most Speech Communication texts rely on the teaching and emulation of "great speeches" as paradigms of public speaking. Although this repetoire creates a solid foundation for understanding rhetorical practice and its relation to context and audience, too often these articulations of prominent discourses and rhetorical situations, central to American identity fail to elevate marginalized voices, past and present. We need exemplars and role models of public speaking, presentation, and communication to reflect our students' lived identites and experiences. This project will compile speeches, presentations, and notable communicative interactions from Massachusetts and New England history alongside realistic, contemporary exemplars familiar to a wider variety of students at FSU and across the region.

# Shaped in the Wild

BY ELISE TAKEHANA

Andrea Olmstead's sculptures and drawings have been on near-constant exhibition throughout Central Massachusetts, most recently at the *State of Clay* show at the Lexington Arts Center and *They Travelled Together* at The Davis Gallery in Worcester. Her work is based on story, nature, and place. "I am a narrative person, and I like to tell stories through my work."

Her sculptures, *The Procession* and *Ascendency* are wonderful examples of the nexus of those core qualities of her work. "*The Procession* was influenced by the story of 832F, one of Yellowstone's most popular female alpha wolves. She caught my attention because she was a fierce and adventurous alpha female that could take down an elk by herself. She accepted two males, but remained alpha, and then began one of the most successful wolf packs in Yellowstone's history. In 2012, she stepped out of Yellowstone's protective border and was shot by a trophy hunter. Her pack emerged from the safety of the woods and remained by her side howling." That feeling of shock and loss in an animal's death was not new to Olmstead. It had spurred on her first sculpture – made with Red Georgia Clay, an homage to a circus elephant who had tragically passed.

But *The Procession* has many layers to its story. "The Procession represents the spirit of 832F. The young woman is alpha. The wolves protect her, but they are also the embodiment of her. She crosses the bridge between life and death, as we all must cross bridges through each new experience and stage in life. We don't know what may lay on the other side; but hopefully, we'll face triumph or tragedy with the courage and spirit of 832F."

Perhaps more than other stages, Olmstead is keenly aware of that passage from adolescence to womanhood and the weight of the male gaze. That has only sharpened as she has watched her daughter grow up. That fear for a teenage girl's safety and the will to protect her is a powerful and fearful feeling. *Ascendency* captures the sense of pulling girls up and out of an alligator's reach. Growing up on the Florida panhandle kept Olmstead keenly aware of the danger lurking in any dark body of water. "All of my experiences are from the South. People try to grow grass everywhere and make Florida look like Disney World, but Florida's wild. It's a wild place."

Olmstead may be best known as a sculptor, but she connects clay to charcoal quite fluidly. "I don't see creating a drawing as being very different

CAPTION: *The Ascendancy*

from making a sculpture. You put charcoal on paper, and then take an eraser and remove the charcoal. It's an additive and subtractive process similar to using clay." Her sculptures all begin as drawings. "I think that my sketches are better than my final pieces because they are more vulnerable and raw, but that's because I'm assuming no one's going to look at them." It is in the final details that Olmstead really enjoys to sculpt. "I've done the hard part of sculpting. Knowing that I have hours of a repetitive task like placing each little dot on a dress or carving the skin on an alligator puts me into a meditative state."

Over the past several years, Olmstead has also been working on an illustrated children's book that combines her impressions of late girlhood, poverty in the South, and the proximity of animals and nature to our daily lives. "I see a lot of poverty and drug use in the South and roaches are a huge problem especially when you don't have the means to control them. I wondered how an abandoned child would handle a roach infestation. Children learn about complex issues through animals, so I thought I could talk about poverty and abandonment through these bugs and the main character. It's really quite humorous at times." As Olmstead developed the story, the roaches came to embody her Grandmother Ruby and her fourteen siblings, with one roach, Miss Mabel, taking care of the child, Ellie. "My Grandma Ruby didn't mind and found humor in it."

Ellie and Miss Mabel make an appearance in Olmstead's sculpture, *Precipice* where the title asks "what are you on the precipice of? Are you on the precipice of insanity? Are you on the precipice of death? Are you on the precipice of transitioning from a young girl into a teenager, teenager into woman?"

Even now, Olmstead is on the precipice of imagining new work. "When I'm not sure where I'm headed with my art, I'll usually work on techniques like sculpting a traditional bust where my focus is getting the anatomy of the face just right. I'll also look at classical sculpture for inspiration and start drawing in my sketchbook to generate ideas." A recent project she sculpted, *Environ*, depicts a man and woman embracing without the typical sexual connotations. "The woman is sitting slightly elevated. Her dress flows from her, around the sculpture, and protects the man." While the nature of her next piece still feels shrouded, Olmstead is clear. "As a grown woman, I have tried to be very true to myself and who I am and the work that I want to make."

OPPOSITE PAGE: *The Procession*

CAPTION: Ellie and Miss Mabel

CAPTION: *Environ*

# Accounting for Human Feeling in Media Literacy

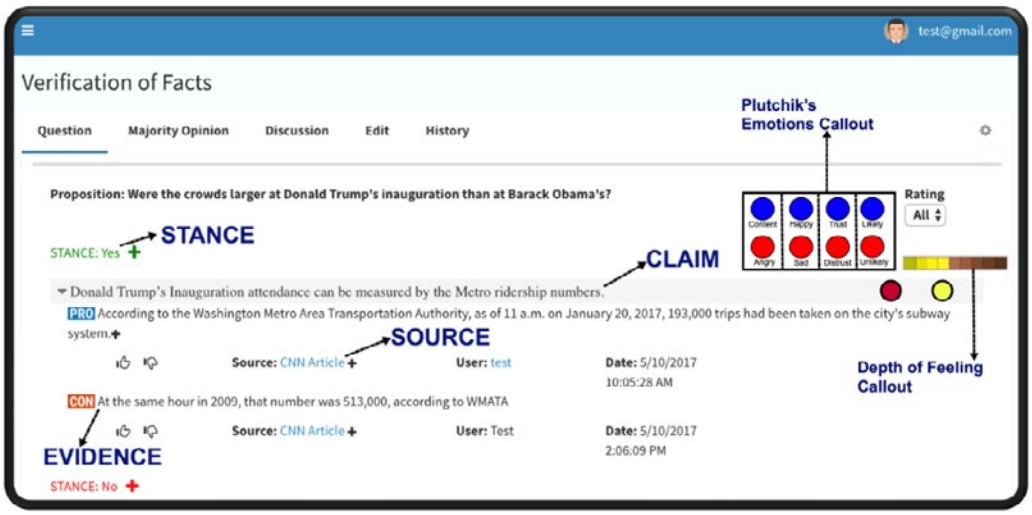
BY ELISE TAKEHANA

Ricky Sethi's interest in computer vision arrived partly as happenstance and partly as a glorious harmony of his previous experiences. After switching dissertation advisors, he found himself working with Dr. Roy-Chowdhury on modeling group movements in videos. "I like that project because my background was physics. I started to model the people as particles using a physics-based, Hamiltonian approach." At the same time, Sethi was working on another project about how scientists communicate with one another in a virtual community, and "it turned out you could describe them with similar mathematics."

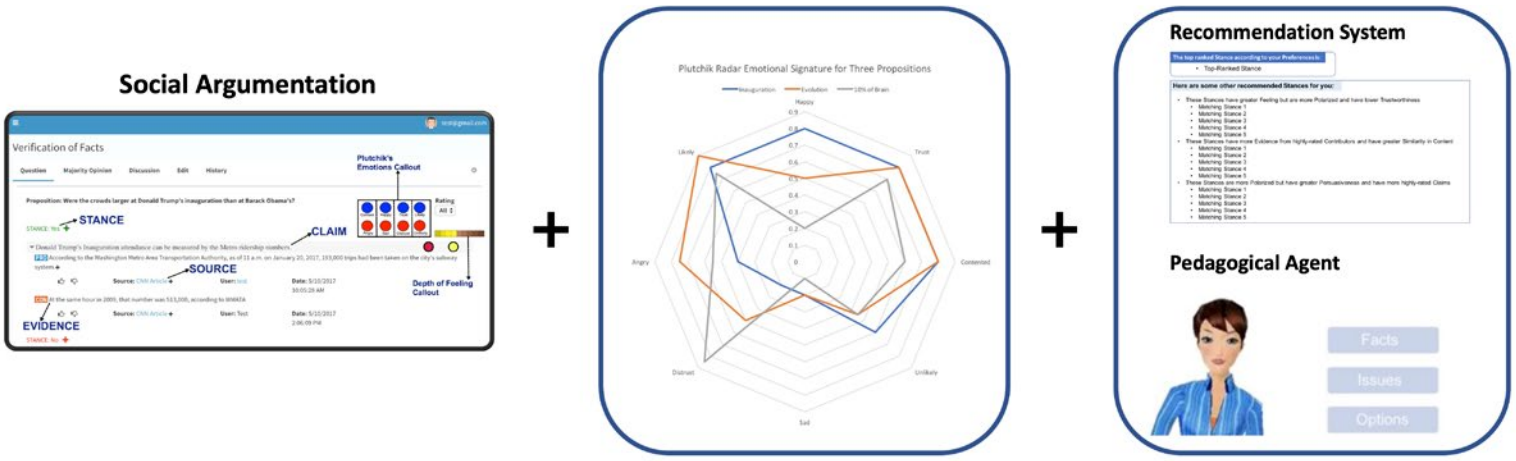
Now, this was Sethi's backdrop as campaigning for the 2016 presidential election began and a fresh set of online communication issues arose in a highly polarized political climate with an increasingly hostile attitude toward the news media. Given his shock with the seriousness some imparted to then-candidate Trump, Sethi partnered with Yolanda Gil, a computer scientist, and Roger Azevedo, a psychologist, to see if his methods of modeling virtual communities of scientists would apply to modeling online discourse around misinformation and fake news. It turns out that the math doesn't quite work out. "There's an emotional component that people bring to bear when they're dealing with some complex issues" and he and his team would have to determine how to account for human emotion. Even more, issues that host strong feelings have a stronger "backfire response" – where an individual's position hardens rather than adjusts to new, particularly counterfactual, information.

Given the overwhelming complexity of human emotion and the unwieldy nature of unstructured online comments and social media exchanges, Sethi and his collaborators first began working out how to make argumentation computable by looking at structured environments – in their case, millions of threaded discussion posts from Devry University that they could fit to a Toulmin-inspired argumentation structure. "People don't have a way to measure these threaded discussions, so we came up with metrics that start to indicate their depth and breadth. We started to apply computational graph structure approaches to it, and make metrics that might help us analyze how complex a discussion might be." Unfortunately, this research languished when Devry objected to making the dataset open access, but Sethi, with his background in physics education, would love to return to this work and explore "quantifiable, mathematical approaches" to gauge the kind of learning happening in online discussions.

Ultimately, Sethi and his collaborators did create an argumentation prototype that accounts for the user's emotional state. The social argumentation prototype now lives in Roger Azevedo's lab, where individual




CAPTION: The final system annotated with Argumentation Components and Emotional Callouts. The primary interface shows the main Argumentation Components, two emotional callouts: one for Plutchik's 8 Emotions and the Depth of Feeling slider, and and the Proposition. User also see the Majority Opinion, and the Discussion, which allows interaction between members of the virtual community.




CAPTION: From left to right: (1) The primary interface, (2) Plutchik's Radar for Emotional Signatures of three Propositions, and (3) the MAUT-based Recommendation System that informs the Pedagogical Agent.

readers are "hooked up to multimodal detection systems," a process that costs approximately $200,000 for each run. In Azevedo's lab "we're measuring skin tone, checking eye-tracking, iris dilation, where they're focusing on the screen, looking at different spectra of facial expressions, as well as monitoring different biometric signals." With that data, Sethi and two of his graduate students then worked on an AI framework that built pedagogical agents of varying political beliefs that are presented to users as interlocutors to guide their exploration of source material.

The original goal for the prototype was a sort of naïve hope that it might speak to those drawn into misinformation and disinformation or who fall prey to conspiracy theories. The pedagogical agent in the prototype could use reason and different combinations of premises or evidence to persuade them otherwise. Early anecdotal evidence Sethi and his collaborators gathered via Amazon's Mechanical Turk showed that a subset of the population – about 45% – are susceptible to such problematic content and some 25-30% are resistant to introspection and unlikely to change their position. Those on the cusp could potentially be persuaded to shift their position.

In the social argumentation prototype Sethi and his collaborators built with funding from Amazon, the debate around a topic restructures as users choose which sources they will consider. Users could thus see what conclusions could be drawn from relying on any particular news source. Users could also sort sources by user ratings. The pedagogical agent that accounts for the user's emotional response offers a potential "out" from the echo chamber effect that can result from filtering sources. For Sethi, the pedagogical agent manifests the value of epistemic knowledge by accounting for the user's feelings, since those feelings will influence how a person thinks or even remembers. "In science, we're interested in what we can reliably predict" so we need to realize and account for the impact of user feelings. Ultimately, the pedagogical agent's presence and the ability to see probabilistic conclusions derived from a range of sources can help offset the emotional, knee-jerk response one might have with charged topics.

While the social argumentation prototype awaits further funding, Sethi has also continued his grant work on usable data flows. "We realized that a lot of these scientific workflows and algorithmic approaches we were using for text analytics could be adapted, extended, and applied for art analytics." The NEH grant work he and Catherine Buell, among others, did "basically lets humanities researchers utilize these very complex tools without needing the commensurate technical background or expertise."

While these research thrusts stay active to varying degrees, Sethi is also using an upcoming sabbatical to continue his physics-based work in computer vision by extending the Data-Driven Hamiltonian Monte Carlo he previously developed to incorporate a quantum field-based approach instead. "Monte Carlo is probabilistic method that relies on random sampling to solve complex, statistical problems. There's a variation called a Hamiltonian Monte Carlo method that uses a physics-based approach with Monte Carlo methods. I created a data-driven version of that and intend to extend it to go from using a classical Hamiltonian to a field-based approach." And there we have it; each of Sethi's projects get a turn at being a nested loop.

# Events

Please send details of events related to faculty research or intellectual life to etakehan@fitchburgstate.edu for inclusion on the Center for Faculty Scholarship's calendar and newsletter.

02 03 22

DEADLINE

MSCA Professional Development funding deadline for Fall 2022 projects are due. Submit applications to Deresa Webb at dwebb5@fitchburgstate.edu.

02 07 22

12:30 CTL

Prof. Laura Garofoli shares her talk "Leveraging an Apprenticeship Model to Improve Reading, Information Literacy, and Learning" as part of the Faculty Speaker Series.

02 15 22

3:30 Hammond Main Lounge

Keynote with Maaza Mengiste, author of *The Shadow King,* shortlisted for the Booker Prize and named one of *The Guardian*'s Ten Best Contemporary African Books.

03 07 22

12:30 CTL

Prof. Eric Budd shares his talk "Reimagining the Post Conflict State" as part of the Faculty Speaker Series.

03 15 22

DEADLINE

MSCA Professional Development funding deadline for Summer 2022 projects are due. Submit applications to Deresa Webb at dwebb5@fitchburgstate.edu.

03 30 22

3:30 TBA

Dr. Philip Day of UMASS Medical School will speak on ethical issue surrounding the use of data in medical care and decision making. A reception will follow.

04 04 22

12:30 CTL

Prof. Ben Railton shares his talk "Two Sandlots: Baseball, Bigotry, and the Battle for America" as part of the Faculty Speaker Series.

04 27 22

3:30 TBA

The CFS's Third Annual Faculty Colloquium features Dennis Awasabisah, Michael Hove, Ben Levy, and Tara Mariolis, who will present their work on "Using Data to Address the Health Challenges of the Future." Reception to follow.

05 02 22

12:30 CTL

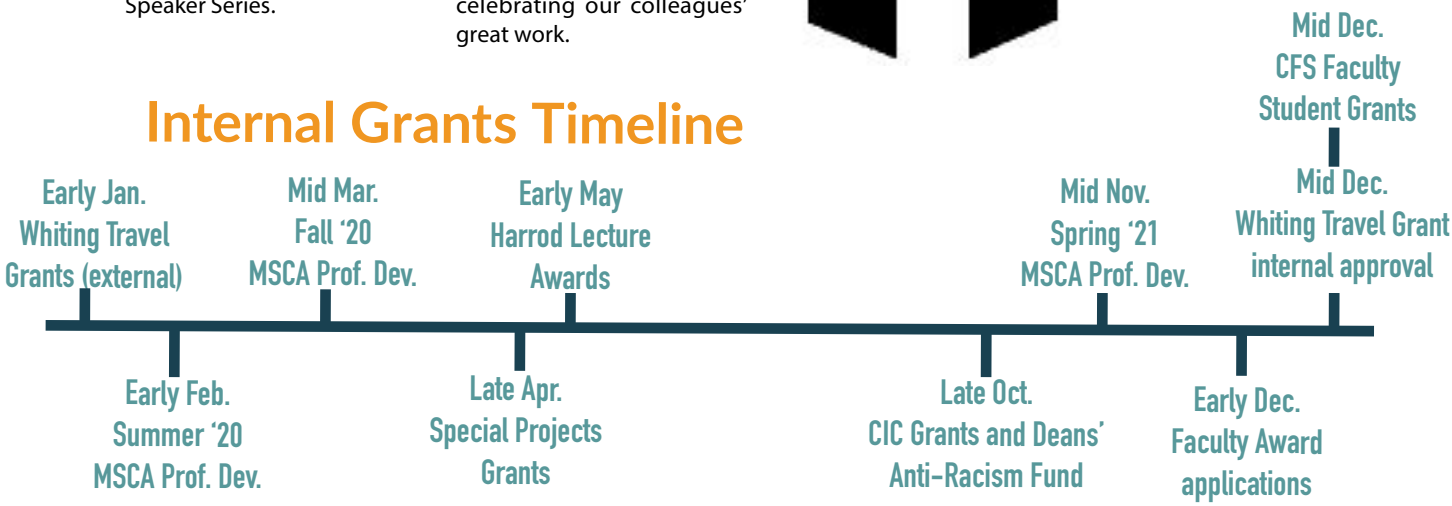
Prof. Eric Williams shares his talk "Designing Disease-Oriented Student Research Projects" as part of the Faculty Speaker Series.

05 17 22

8:30 Faculty Symposium

Faculty present their research with 10-minute talks in the morning. Faculty Awards are announced following a lunch celebrating our colleagues' great work.

## Internal Grants Timeline




Research Live

The Center for Faculty Scholarship

Co-Coordinators: Eric Budd and Elise Takehana

If you are interested in having your work featured in *Research Live*, contact Elise Takehana at etakehan@fitchburgstate.edu