

NEWCOMB TECH



NEWCOMB: TECH IN MIND

THE ZINE OF NEWCOMB COLLEGE INSTITUTE'S
TECHNOLOGY INITIATIVES

ISSUE NO. 1 | 2018 - 2019

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Message from the Editor

I am excited to report that the 2018-2019 academic year has been full of robust learning opportunities and achievements across the many communities of Newcomb's tech-minded undergraduates and faculty. This digital zine showcases the types of technology skills students have practiced, as well as the events attended and facilitated by NCI technology students. NCI's Technology Initiatives promotes women's leadership in technology-centered communities through student programming and digital scholarship. To reach this end, NCI sponsors diverse technology communities.

The Digital Research Interns worked on eight digital scholarship projects of Tulane faculty. These projects included audio/visual editing, graphic design, digital archiving, website development, artificial intelligence design, and database management. The students successfully transitioned to an Agile Scrum model from the apprentice model used in previous years. We moved to this new method to build a better learning community and to mimic the work models of the technology industries. Using this "bottom-up" work-flow and collaborative approach, the interns successfully worked together to meet weekly goals, communicate more effectively with faculty-clients, and problem-solve while learning new technical and job skills. They became a cohesive team, seen in the quality of work that they produced!

For the first time, NCI sponsored this year a HASTAC scholar. HASTAC is a professional community that focuses on the use of technology in teaching and learning. What better way to merge technology and learning than through documentary film? The Newcomb HASTAC Scholar took advantage of the grant and mentorship provided by NCI by beginning production of a documentary film about women's portrayal in films made by Tulane students as measured by the Bechdel test.

We also continued with Newcomb traditions. Every year, NCI takes students to the Grace Hopper Celebration for Women in Computing. This year, four students attended the conference in Houston, TX. These students worked with recruiters, interviewed for jobs and internships, networked with leaders in the technology industry, and attended talks that discussed the role and experiences of women in the industry. The grantees made the experience a fun and energetic week!

NCI's technology-focused student groups also sponsored interactive programming throughout the year. The Women in Technology student group put on skill-based workshops in graphic design, social media, and python. They brought change-makers together in their panel "Leaders in Technology" and the "Music and Technology" workshop. They also provided K-12 outreach throughout the year. Similarly, the Society of Women Engineers worked with local students during BATS and GIST events, sponsored a panel of women engineers who discussed their experiences in the industry and organized for their members to attend the SWE national conference.

This inaugural edition of the Newcomb Technology zine illustrates the important technical work conducted by Newcomb students. It serves as a flipbook for students to showcase their work from the past year. The ideas and concepts produced in this magazine remind stakeholders of the importance of supporting and valuing technology initiatives focused on women's leadership at Newcomb. The future is Newcomb Technology.

*Jacquelyne Thoni Howard
Manager of Technology Initiatives
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The Digital Research Internship program provides undergraduates with an opportunity to obtain a skillset and diverse portfolio in technology. Undergraduates, working on a Scrum team, receive tangible experience in technology and feminist leadership while working on the digital projects of Tulane faculty in the humanities and sciences. This paid internship supplements students' majors and minors when seeking employment or prestigious technology internships.

The Digital Research Internship Program

Meet the Digital Research Interns



Siyang Hu

Project Developer

Siyang Hu is in her senior year pursuing bachelor's degrees in Biomedical Engineering and Computer Science. Her current biomedical research interest is in comparison of different microscopic image reconstruction algorithms. Outside the lab, she enjoys fencing and playing paintball. Siyang is multilingual and has been honored as a Cowen Scholar. She will continue her pursuit in technology after graduation. She has served as the 2018-2019 Digital Research Internship Program's Project Developer, working closely with our Scrum Advisor and the faculty clients of the program.



Lindsay Hardy

Team Member

Lindsay Hardy is originally from Nashville, TN, and is currently a sophomore at Tulane University. She is double majoring in Art History and Computer Science and minoring in Arabic. This combination allows her to utilize her strength in visual learning and to learn new things each day. She plans to eventually apply this degree to the digital humanities field or law school. In her free time, she enjoys running, doing yoga, and eating good food/exploring New Orleans with her friends. In the future she hopes to study abroad in Jordan or Morocco and continue the current work that she is doing with NCI!



Caroline Hixon

Team Member

Caroline Hixon is a senior at Tulane University studying psychology, computer science, and classical history. Originally from Baton Rouge, Louisiana, Caroline could not imagine leaving the warm Louisiana weather and delicious food she has always known. This is her year as an intern in the Digital Research Lab and she appreciates the meticulous and rewarding work. Caroline enjoys the generous and kind atmosphere of the Tulane community, as well as that of the student group Tulane Women in Technology which she currently serves as president. When Caroline is not studying or working, she enjoys attending Tulane sporting events, seeing live music in New Orleans, and watching *The Office*.

**Addie Jasica***Team Member*

Addie Jasica is a junior studying computer science and public health. She originally hails from Lake Forest, IL and could not be happier to have moved down to the warmth (and humidity) of New Orleans. She values the public service aspect of the healthcare industry, in addition to the innovation and creativity of the tech industry. This is her third semester as a Digital Research Intern and she has really enjoyed working with the team of interns this year. When she is not in front of a computer, you can find her dancing in McWilliams, teaching fitness classes at Reily, or sitting around in her hammock.

**Shona Shang***Team Member*

Shona Shang is currently a senior at Tulane University, studying in management, digital art, and marketing. She is originally from Guangdong, China and then lived in Texas for a year before coming to New Orleans. She is interested in art and design, especially the incorporation of aesthetic design into usable products. Through studying art and design, she has found herself to be an emotional sensitive person, and because of this decided to study these emotional triggering symbols in respect to product design. Aside from that, Shona is a broadly defined "art enthusiast." You can find her

**Kodhai Thirumalai***Team Member*

Kodhai is a sophomore, double majoring in economics and digital media production, and minoring in psychology. She is from Bangalore, India. She loves the arts (painting, digital art, creating videos, singing and dancing) because of the creativity involved in making artwork, its ability to inspire, and the talent and skill required to excel at each different art form. She is also interested in the way the financial world works; the flow of money, stocks, the government's ability to influence consumption patterns and money supply, etc. Her other interests include playing sports, listening to music, volunteering, and travelling. She loves learning about different cultures and lifestyles while comparing and contrasting them with her own.

**Sarper Tutuncuoglu***Team Member*

Sarper is a sophomore, originally from Istanbul, Turkey. He is triple majoring in finance, marketing, and computer science and minoring in mathematics. Sarper is very interested in new technologies such as internet of things and blockchain. He likes to learn new computer languages, and through the Digital Research Internship, he has learned new computer languages like JavaScript and SQL, advanced spreadsheet functions, to create apps with Java, and the process to design workshops and had the chance to apply them to real projects. Sarper also enjoys singing, playing guitar, and playing basketball and soccer in his free time.

Empowering Her in Tech

SIYANG HU

“Because we were aware of the gender gap and the need to reduce the inequity, we came together to support each other, not by shouting out slogans, but by doing real things.”

How many of you can't live without google, snapchat, or Uber, the services based on Wi-Fi? Only picturing it made me intimidated. Hedy Lamarr, a Hollywood star, developed a radio guidance system, which was the foundation of the Wi-Fi technology, and thus she should be remembered for her innovation and empowering women of many generations. However, not every woman in the tech field is being properly honored or supported in the industry and society. The gender gap in tech is still the elephant in the room – women hold only 25% of the IT jobs.¹

The Digital Research Internship Program of Newcomb College Institute aims to encourage women's leadership practices in technology reduce the gender gap by encouraging college students to gain hands-on experience in tech. The team consists of six women and one man, all of whom hold equal standing and responsibility on the team. All team members have distinct academic and cultural backgrounds and they come from different schools at Tulane University. The team works on various projects that touch on an array of topics, spanning from music to political justice, from local New Orleans issues to global concerns. We have acquired new techniques such as database management, front end web design, user interface design, and archive management, as we explored working on these problems.



Beginning with this academic year, we adopted an agile project management methodology to better serve our project owner's needs and meet project goals. We constantly receive feedback from our clients (our project owners), and we respond acutely in order to move forward in a fast development environment. Collaboration is the key - instead of having one student responsible for one specific project, we all take ownership to all of the projects. With the team structure, individuals feel less helpless or desperate when they encounter challenges in their work. We hold weekly meetings to discuss what each team member accomplished that week, what each one did not do, and if so, what kind of help is needed. The communication and collaboration maintains morale and ensures that the project's workflow progresses. The weekly meeting also create a supportive environment through collaboration. Whenever a team member needs

help with learning tools or figuring out next step on a project, there is always someone who steps up to say "Hey, I can help with that." In addition, where there are differing opinions, this methodology highly encourages expressing opinions out loud during the weekly meeting so that the team may discuss and come to a consensus collaboratively.

Because we were aware of the gender gap and the need to reduce the inequity, we came together to support each other, not by shouting out slogans, but by doing real things. I never thought of being a software engineer in the future because I thought it was far beyond the coursework, but I was exposed to the real software developing process and learned that it was not mysterious and approachable. Now I step out of my comfort zone, actively applying for opportunities in tech. This is what we do and why we do it.

¹ Bob Davis, Gender Equality: A Trend The Tech Sector Needs To Get Behind, Forbes (2018)

Google Projects You Didn't Know About

ADDIE JASICA

For current students like myself, Google Inc. has been around our entire lifetime and over the last 10 years has built up a very impressive span of products. There is a plethora of Google owned/developed products that many people use daily.

Well known projects include: Google Drive, Gmail, Google chrome, Chromecast, Chromebooks, Waze, Google Search Engine & Images, Google Books, Google Photos, Youtube, Google Play, Google Translate, Google Maps, Google Earth, Google Homes/speaker, Google Hangouts, Google Pixel (phone), Adsense, Google Flights, Google Scholar, Google sites.

However, in addition to the many listed above, Google continues to explore other products and studies that have not been wildly adopted (yet).

1 Project Aristotle

Project Aristotle is an ongoing project that studies hundreds of Google's teams to figure out what makes some groups work smoothly while other struggle. Their goal is to help identify what makes the most efficient and effective teams the way they are. They reviewed old academic materials on working in teams in addition to analyzing 180 different teams across their own company in hopes of finding patterns and norms.

2 Google Daydream

Google Daydream is a virtual reality platform and the successor of Google Cardboard which was a low-budget system designed to peak interest in VR and its mobile apps. Daydream is used with the Daydream View VR headset and compatible mobile phones and is the platform that hosts various virtual reality apps.

3 Google Arts & Culture

Google Arts & Culture is an online exhibition platform where the public can access high quality images of works housed at partner museums and institutions. You can sort through artwork, new and old, with the art camera, view 360-degree videos, and street views of famous architecture and landmarks.

4 DeepDream

DeepDream was created by Google engineer Alexander Mordvintsev and the generator uses artificial intelligence to create art. After being fed images, the computers create psychedelic pictures with spirals, morphs, and colorful landscapes based off the artificial intelligence's gathering images and a given original image to manipulate. The artificial intelligence technology of DeepDream was used to manipulate the images of this Foster The People music video. See for yourself by uploading an image: <https://deepdreamgenerator.com/>

5 Google Fiber Project

The Google Fiber Project is an expanding project to provide broadband internet and IPTV. The project's goal is to provide extremely fast internet and offer an option besides the big cable. It is part of the Access division of Alphabet Inc. And it was first introduced in the Kansas City metropolitan area. It has been about eight years since Google announced this project and progress has been slow due to deployment issues and anti-competition roadblocks from the big cable companies.

6 Google Project Sunroof

Google's Project Sunroof is an initiative to increase solar power use and consumption. The initiative's purpose is to "[map] the planet's solar potential, one roof at a time" and encourage private homeowners to adopt solar power. The website allows you to input your address and receive personalized estimations of your roof's sunlight exposure, available space to place solar panels, and potential savings if you were to adopt solar power. The project also gathered FAQs and resources for people interested in investing in solar power for their home.

7 Google Trends Visualizer

The Google Trends Visualizer beautifully displays the top searches globally or from a region of your choosing. You can then click on the search to get Google's results. Additionally, trends.google.com can graph out people's search and interest in a subject matter over time.

Go explore at <https://trends.google.com/trends/hottrends/visualize?nrow=5&ncol=5> or <https://trends.google.com/trends/?geo=US>

For more interesting hardware development projects, check out X (founded by Google but a subsidiary under Alphabet Inc).

Women in Tulane - Newcomb College: A Short History

CAROLINE HIXON

In 1887, coeducation in the United States and at Tulane University was considered socially inappropriate. But in the face of this, Tulane's president William Johnston, with help of Josephine Newcomb, crafted a plan for the education of young men and young women under one institution, but divided into two different colleges¹. While women attended classes in a different "department" and campusthan men, it was still understood the women were attached to the male university and were considered peers of the male students that could attain the same level of education. Therefore, Newcomb College served as a contrasting example to the ideas of the time that women's abilities were limited.

The Newcomb campus moved to its current location on Broadway next to the male campus in 1918. At this time, the College continued along as a separate and distinct women's college, but change was underway in traditions and culture at Tulane². The move to Broadway marked an important beginning of the shift away from a separate women's culture and academic autonomy. Another important shift in the history of Tulane was when in 1963, Tulane University reconsidered its historical racial exclusion and allowed eleven black students to enroll. In 1964, the first black woman enrolled at Newcomb College, Deidre Dumas Labat, who graduated in 1966³.

In June 1972, President Nixon signed into law Title IX of the Education Amendments that states, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."⁴ Following this and with the nationally growing frustrations of women to achieve continuing education, Tulane's Dean Cohen proposed the creation of a campus-based women's center focused on Newcomb's mission to education for and about women. In the fall of 1975, the Newcomb Women's Center of Tulane University opened its doors on the second floor of Caroline Richardson, forever changing how women's ideas, scholarly achievements, advocacy, and friendships were allowed to develop and embodying the feminist revolution.⁵



In 2005 when hurricane Katrina struck New Orleans, there were growing indications that students at Newcomb no longer had a separatist perspective. From the damage and costs from the flooding, Tulane president Scott Cowen devised a plan of reorganization that would ensure the school's survival. Among those changes was that all freshman

students regardless of gender would enroll in a single undergraduate college. From Newcomb College and Paul Tulane College became Newcomb-Tulane College that now is the home for both male and female undergraduate studies. A newly created Newcomb College Institute would seek to uphold the values of the previous Newcomb College, specifically providing education for and about women, in the context of a co-educational institution.⁶

The history behind Newcomb-Tulane College is important in understanding how it operates today. Before researching this topic, I, and seemingly most of the students at Tulane, were unaware that Newcomb was even separate from Tulane University. I enjoyed reflecting on this rich history because of how I now see Newcomb. To me, the history of the women that attended Newcomb College and Title IX created an environment today that promotes opportunities, education, and equality for women that would otherwise be lacking. I am lucky to be involved in the Digital Research Internship and one of the student run organizations that Newcomb supports. Without the passionate, dedicated, wonderful women that created the history of Tulane, the New Orleans and Louisiana community would not be the way it is today. Like being a contrasting example

of women's abilities in 1887, Newcomb-Tulane College and Newcomb College Institute continues to attract and develop women that one day will be part of Tulane's history.

¹Susan Tucker & Beth Willinger, *Newcomb College*, (Louisiana State University Press, 2012), 1.

²Tucker & Willinger, *Newcomb College*, 14-16

³Tucker & Willinger, *Newcomb College*, 270-276

⁴Tulane University, "Title IX at Tulane: Information and Policies." Accessed February 3, 2019. <https://titleix-dev.tulane.edu/information-policies>

⁵Tucker & Willinger, *Newcomb College*, 247-250

⁶Tucker & Willinger, *Newcomb College*, 405-6



THE DIGITAL RESEARCH INTERNSHIP

When thinking about New Orleans, most people do not consider tech or electronics as making up an important portion of its industries. The technology and electronics markets, however, are rapidly expanding in New Orleans. Recently DXC, a multi-million dollar tech company, moved to New Orleans. DXC, when searching for a new location, specifically looked for a place to house its new digital transformation center, which has the goal of "turning ideas into action." DXC prides itself on its ability as a company to have "end to end IT service," meaning

that it has the resources and employees to create anything a company needs, from analyzing an oil rig to categorizing a warehouse.¹

When determining where to choose their next location New Orleans stuck out because of the lower cost of living and the energetic environment, but also because of the economy that it continues to build. One of DXC's main goals when moving to New Orleans was not just to hire people from different states and areas, but rather to also invest in the existing infrastructure and people that are already in the city². This movement to new areas, and creation of larger job markets, is not strange for a tech company, but it requires incentives. Recently Amazon, another tech giant, did a nationwide search to find two new locations that it would expand to. It decided on New York and Virginia. But after a few weeks, New York backed out because the \$1.5 billion in incentives that would be required for Amazon's expansion. DXC's expansion to New Orleans was not as pricey, but there was still a cost. For part of the incentive, the Louisiana government has created a \$25 million grant towards public schools that will be used to build and grow education in STEM fields, a \$6.5 million incentive deal hashed out over the next couple of years, as well as \$115 million in subsidies and tax breaks. With the enlargement of the STEM fields, DXC in the future will have the opportunity to hire more workers, and new graduates, from surrounding area.³

The plan for DXC, when it opened, was to hire 300 initial workers and then to hire an increasing number of workers over the next six years, culminating in around 2,000 workers from New Orleans. It has been reported that from these 2,000 direct jobs created by DXC, there will be around another 2,400 indirect jobs such as restaurant workers, shop owners, and government workers, created too. As well as the increase in indirect jobs, DXC will generate as much as \$8.2 million in local taxes.⁴ Although this expansion will not be fully realized until 2024, New Orleans residents worry that DXC will not create as much success as expected. This worry comes from the

large sum of money (the \$6.5 million incentive and \$115 million subsidies) that the city provided to bring DXC to New Orleans. In the past for New Orleans and Louisiana, these deals also haven't always worked. For example other companies like Union Tank Car, IBM, and GM have been offered incentives, come to Louisiana, only to not live up to the expectations that they set for

¹Boynton, Terrell, and Michael Hecht. Interview by Andy Levine and Patience Fairbrother. The DCI Blog. June 25, 2018. Accessed March 28, 2019. <https://aboutdcii.com/2018/06/episode-45-new-orleans-rising-dxc-technology-project-launched-louisiana-tech-hub/>

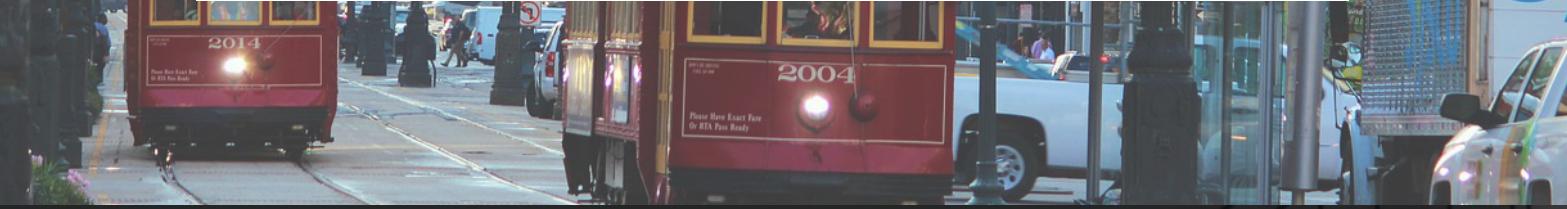
²Larino, Jennifer. "DXC Technology's New Orleans Office Is Now Open." Nola.com. May 23, 2018. Accessed March 28, 2019. https://www.nola.com/business/2018/05/dxc_technology_open_new_orelean.html.

³Bridges, Tyler. "Gov. Edwards Touts Jobs from New DXC Office in New Orleans, Downplays Cost of Incentives." The Advocate. January 29, 2019. Accessed March 28, 2019. https://www.theadvocate.com/new_orleans/news/business/article_ef5b04b0-2356-11e9-b219-eb5197bb1066.html.

⁴Thompson, "We Need People, Skills and New Capacities: DXC Technology Cuts Ribbon on 2,000-job New Orleans Office." The Advocate. May 23, 2018. Accessed March 28, 2019. https://www.theadvocate.com/new_orleans/news/business/article_501aad16-5ecf-11e8-a6c1-f3be7486af55.html.

Rethinking Tech in New Orleans: DXC's Arrival

LINDSAY HARDY

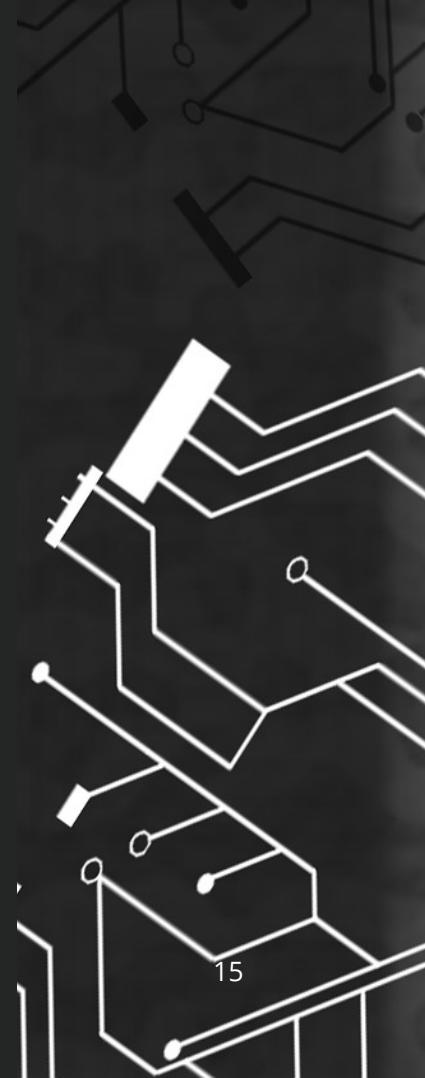


themselves.⁵ But, as a semi-safety net for the city, if DXC does not fulfill their promise of hiring local talent and creating jobs for New Orleanians, then the the full amount. Because of this DXC has been working hard to live up their expectations, and it has been welcomed as a way to increase New Orleans's reputation as a tech hub and also build up its economy for the future.⁶

This topic is especially important to New Orleans as it continues to grow as a city and expand its economy. Moving in a direction that is different from its typical economic area will allow a larger number of people of different identities and backgrounds to be more willing to move to New Orleans. I personally find it interesting how much governments and states have to provide to get a new company to move to their city. I did not realize how active the governments were in the process or how it expands outside of the economy to areas like education. Continually I believe the topic is specifically important to me as a Computer Science student because the incentives that are being made will apply directly to the current education system that I am in. As a student I think that it is great that New Orleans is starting to have more tech companies, because these companies will be able to provide me with more unique tech internships and opportunities for before and after graduation. I love New Orleans and don't necessarily want to leave when I graduate, and so because of the new companies that are building up, I now I have more reasons to stay!

⁵ Bridges, Tyler. "Gov. Edwards Touts Jobs from New DXC Office in New Orleans, Downplays Cost of Incentives." The Advocate. January 29, 2019. Accessed March 28, 2019. https://www.theadvocate.com/new_orelans/news/business/article_ef5b04b0-2356-11e9-b219-eb5197bb1066.html.

⁶ Thompson, "We Need People, Skills and New Capacities" DXC Technology Cuts Ribbon on 2,000-job New Orleans Office." The Advocate. May 23, 2018. Accessed March 28, 2019. https://www.theadvocate.com/new_orelans/news/business/article_501aad16-5ecf-11e8-a6c1-f3be7486af55.html.



The Blockchain Revolution

Sarper Tutuncuoglu

On January 9, 2009, Satoshi Nakamoto, an anonymous person with a fake name, released Bitcoin to the world. Bitcoin was only an electronic cash system but the technology behind it was revolutionary: Blockchain. The blockchain technology enabled any kind of data to be stored in each computer that helped the growth and storage of the chain of blocks. A block would be a list of any kind of data, and whenever a block is full, the next block would be created and linked to the previous one through cryptography. The cryptography would depend on the data on the previous block. The only way to change the data on the previous block would be by changing the data on the next block. But this chain of blocks would be distributed to every other user, so even if the whole data is changed by one user, every other user who is participating in the system would have the correct data. So, without the computing power to dominate all the other users, it would be impossible to change any previous data on the blockchain. This peer-to-peer, distributed ledger would allow an implementation of an open and safe database.



The blockchain technology was first used by Bitcoin. Soon after Bitcoin's release, a number of other cryptocurrencies appeared, and several of them became really popular in a couple of years. These cryptocurrencies allowed users to send or receive money without the extra fees and control that the banks and governments impose. Although these cryptocurrencies have several technological flaws, still to be solved, the blockchain technology showed that the financial world does not have to depend on centralized institutions, thus providing a freer financial environment for everyone.

It was not only the financial environment that was freed from centralized

organizations. Blockchain paved the way to help any industry become liberated from third parties. For example, with a blockchain system, artists can share their music directly with the users without having to pay for Spotify or other businesses' services. With blockchain, drivers can find passengers without a central organization, like Uber or Lyft, to connect them. Instead, these parties can connect through a system that is distributed to every other user and resistant to modifications.



Blockchain will revolutionize any industry by taking the central, dominant powers out of the equation. It will also bring data science to a new age by making data immutable. But the most important change it will deliver will be distributed computing platforms. Like the company Ethereum started implementing, any kind of computer program will be on distributed blockchains, and the programs will run based on the data they get. For example, a business contract application will be able to carry out payments depending on conditions that are based on the data the application receives. These decentralized programs will revolutionize the implementation of internet-of-things. The algorithms the things work through will not be located on one server in a physical location, but they will rather be on the blockchain which is distributed over the users. This will help accommodate the enormous amount of data internet-of-things will require, and the things will not be controlled by a central force. From cars to coffee machines, nanobots to clothes, every thing will be talking to each other!

Blockchain started out as this mysterious technology behind an electronic money system. But in the near future, we will be witnessing the revolution it will bring to every aspect of our lives!

Nakamoto, Satoshi. "Bitcoin: A Peer-to-Peer Electronic Cash System." October 31, 2008.

"A Next-Generation Smart Contract and Decentralized Application Platform." GitHub. Accessed April 07, 2019. <https://github.com/ethereum/wiki/wiki/White-Paper>.

THE DIGITAL RESEARCH INTERNSHIP

Interaction design (IxD) is an interesting intersection of computer science and design. In a broader term, it is the design of your experience, as a person, interacting with a platform. This platform can be a website, an app, and a virtual or a physical system. The history of interaction design dates back to the 1980s when people started to apply product design to software design; however, it did not become an officially acknowledged field of study until 1994 when MIT established a Master Program in Interaction Design¹.

The goal of an interaction designer is to design a system that meet the needs of users while providing the best experience. As many people might already know, the “4D (4 dimensions)” in design language (1D—Words, 2D—Visual representation, 3D—Physical Object/Space, and 4D—Time), interaction design largely depends on the 5th dimension—“Behavior”². And this is where the specialty of interaction design lies. In contrast to other fields of design, interaction design focuses not only on the aesthetic appearance, but also on imagining the reaction of users to the products. Understanding human behavior is crucial in this field and this is why many companies are willing to hire people with a background in psychology, regardless their lack of practice in design.

¹ “Interaction Design > School of Design > Carnegie Mellon University”, Interaction Design, April 09, 2019, https://web.archive.org/web/20121130142448/http://www.design.cmu.edu/show_program.php?s=2&t=3

² “What is Interaction Design?”, The Interaction Design Foundation, Accessed April 09, 2019, <https://www.interaction-design.org/literature/article/what-is-interaction-design>

Jobs Coexist with Interaction Design: User Experience (UX) Design, User Interface (UI) Design, Visual designer, User experience researcher, Usability researcher, Usability researcher, Business Design, Communication design, Software design...¹

¹ “6 Cool UX Careers You May Have Never Considered”, IMPACT, Accessed April 09, 2019, <https://www.impactbnd.com/blog/6-cool-ux-careers-you-may-have-never-considered-infographic>



Practicing Interaction Designer Portfolio/Website

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Simon Pan <http://simonpan.com/>

Jason Yuan <https://jasonyuan.design/>

Although “interaction design” might be thought of as the most authentic term to describe the practice, not all institutes use it because they have different focuses in their research. Most of these interaction design programs are hosted in schools of design and schools of engineering. Here are some selections from currently available programs in the U.S.

1. California College of Art (CCA)

Interaction Design

2. School of Visual Art (SVA)

Interaction Design

3. University of Washington

Human-Computer Interaction and Design

4. San Jose State University

Human factor and Ergonomics

5. Pratt

Information Experience Design

6. University of California, Irvine

Human-Computer Interaction and Design

Nonetheless, people may have a wide range of majors and become interaction designers after working on another position for several years. These majors include, but are not limited to—

Design and Art

Product design

Graphic design

Integrated Digital Media

Communication Design

Industrial Design

Liberal Arts

Communication studies

Psychology

Humanity

Science

Computer Science

A Glimpse of

Interaction Design

Shona Shang

If the above information does not give you a clear idea of how interaction design works, please keep reading to learn about examples in real life.

1. Game Development Ex, "[UI/UX DESIGNER, BATTLE.NET](#)" at Blizzard Entertainment focus on the entertainment experience when they are in the game, when they connect with other players, or when they shop gaming products. It aims to improve playing experience at any minor details—maybe the interactive reaction of your role when they try on new skin; maybe the special effect when you enter the game.

2. Communication and Media Ex, "[Digital Graphic Designer](#)" at CNBC Digital Media would need to be responsible for a wide range of content and discipline—from creating GIF/motion graphic associated with publishing content to creating graphic solution to branding in new channels.

3. Marketing Ex, "[UX Architect](#)" at Ogilvy would need to develop specific typography, UI patterns guidelines as digital solutions in specific campaign or specialism. Works may also associate with Product design and marketing research.

4. Software Ex, "[USER EXPERIENCE GENERALIST](#)" at Ultimate Software would need to decide how users would experience the product, taking into consideration of the purpose of the product and essential components of the software. They would closely cooperate with software engineer.

5. Design and Consulting Ex, "[Interaction Designer](#)" at IDEO will need to deal with a wide range of industries due to the nature of design companies. Designers would need to create beautiful and feasible solutions based on the need to specific client..

6. Internet Ex, "[Interaction Designer](#)" at Google would need to create the user-friendly interface on its products. Google as a big company may have a mixed topic to work on; but just like most other internet companies, interaction designers are aiming to create better user experience for customers directly using their products.

Create solutions for upgraded driver experience

7. Automobile Ex, "[Interaction Designer / Service Designer](#)" at Ford Mobile Company would need to consistently provide drivers and passengers comfortable interaction with the car system as their models keep upgrading.

The Development of Special

Effects in Film

Motion Graphics VS Special Effects

Motion Graphics include creating an entire graphic and actually animating it to move a certain way. Special effects however are shot on a film set using green screen. Certain elements such as backdrop are added, the motion of the character/object is recorded using a prop, and later modified during post-production. In addition, color correction and edits are made, to result in a setting and landscape that looks very different from the one initially created. Both motion graphics and special effects are very common in films, and are done through software such as Adobe After Effects, Maya, Softimage, Autodesk, Mental Ray, RenderMan and Flash.

Special Effects in Game of Thrones and its Impact

Game of Thrones uses a lot of CGI (computed Generated Imagery), to make many of the landscapes, dragons, white walkers, and general mythical creatures. For example, every time Denaerys sits with a dragon on her lap, the scene is actually filmed with a green pillow/ball attached to a green stick that is moved around similar to the motion of the dragon. The post-production team edits the green prop to create the dragon. Similarly, many of the scenes with views of a wide landscape in the background are computer generated. For example, in the picture of the army of people below, only few are actors dressed in costumes standing on a snowy ground. Most of the landscape and additional people are added in via CGI. In addition digital design artists use CGI to add in more subtle changes like the Night King's blue eyes, translucent horns, and small facial changes. Therefore, special effects have completely changed the scope of films in terms of cost, efficiency, and potential.

Staff. "How Game of Thrones Looks Before and After CGI." *Dorkly*. August 03, 2017. Accessed April 22, 2019. <http://www.dorkly.com/post/84785/game-of-thrones-cgi>.



A Brief History of Special Effects

While we think of special effects to only include adaptations like huge buildings collapsing, robots fighting, superheroes flying, special effects can really include everything from green-screen imaging and compositing, to character animation through miniatures and computer modeling, to lip-synching, lighting and even creative makeup.

Initially, in the 1970's and 1980's, scenes were hand-drawn to mimic the style of contemporary computer animation. In the 1976 movie *Futureworld*, the producers used rendered polygonal models to introduce 3D elements, a technique which has now become standard. In the movie *Tron*, the chief editor Karen Moltenbrey used computer simulation, backlit techniques and conventional live action. He faced the challenge of combining everything to make the movie look cohesive. CGI (Computer Generated Imagery) earned its place in the film industry after *Toy Story*, when the developers created the RenderMan software, which is still used by Pixar today. While producing the film, Pixar grew from just 10 people to 150 people, with 50 - 70 of them working on the technical team. Another major development in the realm of special effects was when developer Stephen Regelous created a program named 'Massive' for the *Lord of the Rings* trilogy. This program used Artificial Intelligence to allow developers to quickly create thousands of individual characters, each of which responded differently to its surroundings. Each character's reactions affected other characters and changed their reactions such that a realistic scene could be created.

Plus, PC, and PC Plus Issue 280. "How Special Effects Transformed the Movies." *TechRadar*. August 30, 2015. Accessed April 22, 2019.

<https://www.techradar.com/news/world-of-tech/computing/how-special-effects-transformed-the-movies-590842>. Plus, PC, and PC Plus Issue 280. "How Special Effects Transformed the Movies." *TechRadar*. August 30, 2015. Accessed April 22, 2019. <https://www.techradar.com/news/world-of-tech/computing/how-special-effects-transformed-the-movies-590842>.

Creating My own Motion Graphic!

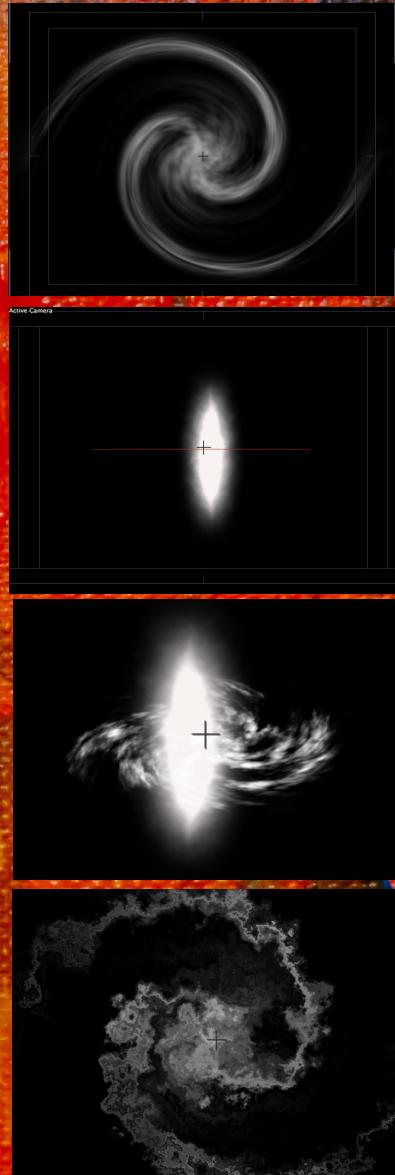
Coming up with the idea

While conducting research, I learned that using Adobe After Effects was a good place to start dabbling with motion graphics and special effects. I had already done Kinetic Typography on After Effects before and so I knew the basics and thought it might be cool to create my own simulation. I thought it might be interesting to simulate the movement through space. So I set about going through YouTube videos to create a static galaxy. My idea was to then add camera movement in After Effects to add the motion element.

Challenges and Difficulties

I faced several challenges and difficulties while building the motion graphic. I used a video as reference to create my galaxy, and found that it was pretty hard to follow along, given that this was definitely an advanced use of Adobe After Effects. There were also some features that were not explicitly stated in videos, so I had to figure things out on my own. For example, when I was creating the core of the galaxy, even though I changed the order of the layers, the core was still being hidden behind the swirls of the galaxy because all the layers were 3D. It took me a long time to figure out that I had to change the mode of the layer from 'normal' to 'screen.' Also, it was both challenging and interesting to figure out which settings to adjust on the preset effects, and by how much, to create the best actualization of the galaxy.

Kodhai Thirumalai



Takeaways

After completing this process, I now have a better understanding of how much of a film is CGI even though it appears to be filmed on set. I also know how to use Adobe After Effects better, and understand the effects it has, how to modify effects, and even how to create my own effect presets. Since After Effects is a good gateway to Motion Graphics and Special Effects, this will be helpful should I choose to pursue it further.

The Process

1. Creating the spiral

I created the equivalent of a 4-pointed star using the polystar tool. I added fractal noise to this shape and added a twirl effect and changed all the settings.

I changed the landscape of the spiral using the camera tool, and changed the mode to 'screen' to ensure blending, and converted the layer to a 3D layer.

2. Creating the Center of the Galaxy

I created a diamond with rounded sides. I created 4 masks and increased and decreased the feathers, opacities and expansions of the various masks. I added a fast blur and vector blur to the shape and changed the blurriness, effects opacity, amount, smoothness and softness. I added a second fast blur with different effects, added turbulent displacement, and a levels effect, and adjusted them. I added a piece of code that I found online to ensure that the center rotated along with the spiral. I converted the layer to a 3D layer.

3. Center Detail

I added a white rectangular shape and added a circular mask to it and adjusted the mask feather and expansion. I then added fractal noise, turbulence displacement, and twirl effects to add to the outside of the core, and changed the mode to screen. I converted the layer to a 3D layer.

4. Creating the Nebula Effect:

I duplicated the spiral layer, and increased the brightness and contrast of its fractal noise. I added a turbulent displace effect and changed the amount, size and complexity settings. I put a silhouette effect on the black solid layer of the swirl. I then added another fractal noise effect to the swirl composition and changed the type to 'Dynamic Progressive,' changed the transform scale, brightness, contrast, etc. to create desired effect.



The Digital Research Internship program worked on a multitude of projects throughout this year. The following posters describe the mission of the research projects and the work completed by the DRI team members. These projects ranged from categorizing archival materials to creating websites. We worked with faculty in fields ranging from English to Music to Computer Science.

The DRI Program Project Posters

Sites of Resistance

A WEBSITE FOR SITES OF RESISTANCE, AN EXHIBITION EXPLORING NEW ORLEANS' HISTORICAL ROLE AS A SITE OF INTENSE ORGANIZING, LEGAL STRATEGY, LABOR STRUGGLE, AND CIVIL RIGHTS ACTIVISM.

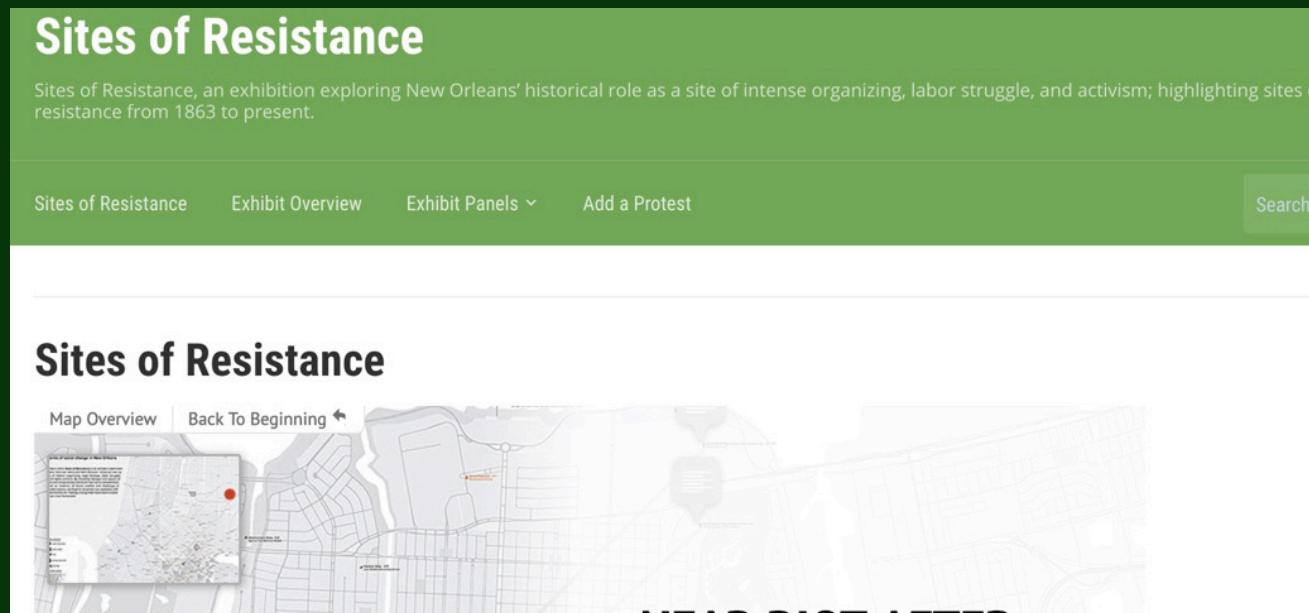
Sites of Resistance

Sites of Resistance, an exhibition exploring New Orleans' historical role as a site of intense organizing, labor struggle, and activism; highlighting sites of resistance from 1863 to present.

Sites of Resistance Exhibit Overview Exhibit Panels Add a Protest Search

Sites of Resistance

Map Overview Back To Beginning



Our Work

Creating a website for Sites of Resistance that includes

1. A website for the Sites of Resistance exhibit that featured the original full city. The website included zoom-in maps with clickable layers fed by the database for all points on the map and/or a drop down menu for links to the exhibit panels
2. Reworked web friendly versions of the exhibit panels as individual pages that can be reached from the main page maps.
3. Constructed a map that incorporated sites and routes from post-1990 protests, fed by the 1990 spreadsheet with clickable sourcing, and with labeled points along with the capacity for ongoing user additions.

Our Team

Scrum Team Interns: Addie Jasica, Caroline Hixon, Kodhai Thirumalai, Lindsay Hardy, Sarper Tutuncuoglu, Siyang Hu, Shona Shang

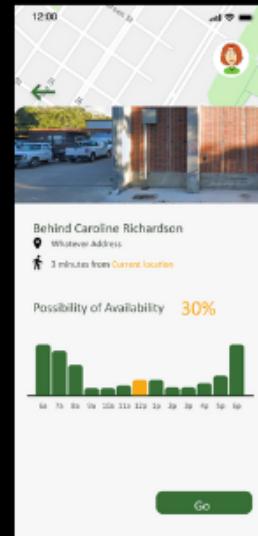
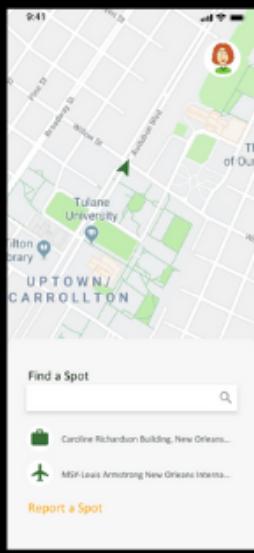
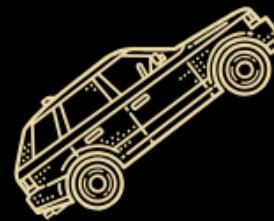
Project Owner: Sue Mobley

Scrum Advisor: Jacquelyn Howard



ENGAGING COMMUNITY STAKEHOLDERS IN ARTIFICIAL INTELLIGENCE

Artificial intelligence technologies are increasingly popular as access to computing power grows. These systems are praised for their ability to sift through large amounts of data and make recommendations. However, artificial intelligence systems are often developed without including the perspectives of those that will use them. This project will explore methods of engaging community stakeholders in the research and development of AI systems and will culminate in the design of a recommender system prototype.



This project first required the organization of a design thinking workshop. The design thinking workshops main goal was to identify problems and then come up with solutions that would involve AI. From this workshop we decided to focus on the issue of finding free parking on Tulane's campus. This is a problem that afflicts faculty, staff, students, and any visitor to the campus. With the idea we then researched the best way to solve the problem, looking into what platform we should use, how to generate support, and how to incorporate AI. After we completed the research we combined all of our found information into a formal product plan that could be presented to the public!

Faculty Advisor: Jaelle Scheuerman, Scrum Advisor: Jacquelyne Howard
 Scrum Team: Kodhai Thirumalai, Sarper Tutuncuoglu, Caroline Hixon, Adelaide Jasica, Lindsay Hardy, Siyang Hu, and Shona Shang
 2018-2019

Frances Joseph Gaudet Legacy Project

FALL 2018 - SPRING 2019

MISSION

The Frances Gaudet Legacy Project aims to raise awareness of Mother Gaudet's legacy and her work with prison/educational reform, mainly for Black youth in New Orleans, in the hope that her early 20th-century experiences might prove instructional and inspirational to present-day activists working in similar areas. A website was created for the organization and digitization of archival materials related to the life and work of Gaudet, who is recognized as a saint in the Episcopal Church.

OUR WORK

Our team gathered archival materials from various collections and categorized each image, newspaper clipping, and item according to the Dublin Core Metadata Schema. We created a free website hosted by Wordpress.com and gathered biography information and images for the site. We began adding archival documents to the site under the heading "Records", categorizing and tagging them.

Link: francesjosephgaudet.wordpress.com

Item ID	Title	Creator	Subject	Description	Publisher	Contributor	Date	Type	Format
1	Gaudet Confirmation Excerpt		Gaudet Normal and Industrial School				12/16/1928	Image	.png
2	Gaudet Confirmation Records		Gaudet Normal and Industrial School				Various	Image	.pdf
3	1902.04.17 real estate transfer recorded yesterday (5 down)		Colored Industrial School and Home	Bottom half of the 5th column, describes The Daily Picayune - New Orleans			4/17/1902	Image	.pdf
4	1902.08.31 a waifs' outing (6 column down)		Colored Industrial School and Home	Bottom of the 6th column, describes The Daily Picayune - New Orleans			8/31/1902	Image	.pdf
5	1902.09.17 colored industrial school (third column down)		Colored Industrial School and Home	Bottom of the 3rd column, describes The Daily Picayune - New Orleans			9/17/1902	Image	.pdf
6	1902.09.26 colored industrial school first session (bottom right)		Colored Industrial School and Home	Bottom right, announces school's first The Daily Picayune - New Orleans			9/26/1902	Image	.pdf
7	1902.11.19 sec. 55 public charities		Colored Industrial						
8	1902.12.21 the songs of the ministers		Colored Industrial						
9	1903.03.29 colored industrial home and school doing good work [u]		Colored Industrial						
10	1903.03.30 colored industrial school needs help		Colored Industrial						



The Frances Joseph Gaudet Legacy Project

HOME BIOGRAPHY SCHOOL RECORDS CONTACT US

Home

About the Gaudet Legacy Project

The Frances Gaudet Legacy Project aims to share widely the example of her extraordinary life in order to guide and inspire similar work in our present times.

Scrum Team Members:

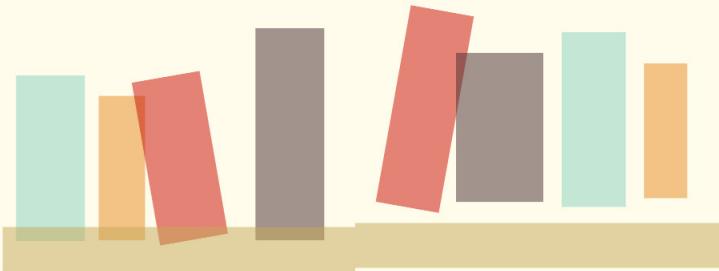
Addie Jasica, Lindsay Hardy, Caroline Hixon, Shona, Shang Sarper Tutuncuoglu, Kodhai Thirumalai, Siyang Hu

Project Owners:

Laura Rosanne Adderley & Nell Bolton

Scrum Advisor:

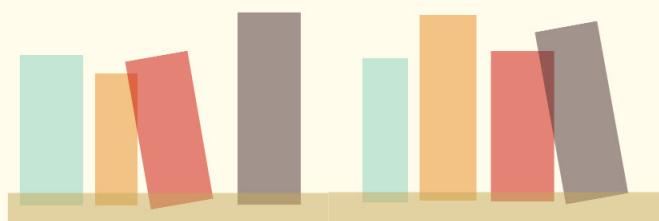
Jacquelyne Howard



THIS BEAUTIFUL SISTERHOOD OF BOOKS

Project Mission

This project's mission is to provide a valuable resource for teachers and scholars of women's literature and history, book and library studies, New Orleans history, and World's fair. This is done by recreating the Women's Literature Department that had an original collection of over 1,400 books that represented white women writers from thirty-one states, Washington DC, France, and Britain. It was organized by Maude Howe on instruction from her mother, the famous reformer and suffragist Julia Ward Howe, who directed the Women's Department as a whole. Visitors of the website will be able to view images of original bindings, access student-generated annotations, search using a variety of filters, and consult research on concerning topics.



Our Work

The work on this project was divided into two phases. First, interns proofread, investigated, and corrected the Dublin Core schema for digital resources. This process required careful attention to detail for all entries in the master spreadsheet. Next, the website for this project was built through Wordpress. Here interns created a website that was visually appealing as well as easy for visitors to understand. Additionally, the website required creating book item pages for each entry in the spreadsheet. Each book item page has to include the correct Dublin Core information for visitors to access.



Scrum Team Members: Caroline Hixon, Lindsay Hardy, Sarper Tutuncuoglu, Shona Shang, Siyang Hu, Addie Jassica, Kodhai Thirumalai

Project Owner: Kate Adams

Scrum Advisor: Jacquelyne Howard

The Transitional Justice Database



Transitional Justice Research Collaborative

[Home](#) [Browse Data](#) [Download](#) [Findings](#) [FAQ](#) [Feedback](#) [About](#) [People](#) [Links](#)

Home

Transitionaljusticeodata.com is meant for scholars and practitioners who wish to examine the causes and impacts of mechanisms that address human rights violations. Comprised of principal researchers from University of Oxford, University of Minnesota and Harvard University, the Transitional Justice Research Collaborative presents data on three primary transitional justice mechanisms—human rights prosecutions, truth commissions, and amnesties—for 109 democratic transitions in 86 countries around the world, from 1970-2012. While by no means complete, the dataset includes the most comprehensive single collection of information on these mechanisms for countries across the world. With the support of the Arts and Humanities Research Council, the data were collected from a variety of sources over a 25-year period. As we complete our data collection and data processing activities, including new data on human rights prosecutions, vetting and reparations, Rea...

Feedback and Corrections

The Collaborative welcomes and encourages [Feedback](#) from country experts. T...

type	yearStar...	yearOut...
Domestic State Agents...	1987	1999
Domestic Business Trials	2008	2015
Domestic Business Trials	1995	2007
Domestic Business Trials	2010	2011
Domestic Business Trials	2009	2009
ATIS Cases Businesses	2004	2004
ATIS State Agent Cases	1987	1990
ATIS State Agent Cases	1987	1988
ATIS State Agent Cases	1987	1989
ATIS State Agent Cases	2007	2008
Domestic State Agents...	2008	2008
Domestic State Agents...	2008	2012
Domestic State Agents...	2005	2012
Domestic State Agents...	2010	2011
Domestic State Agents...	2009	2012
Domestic State Agents...	2008	2008
Domestic State Agents...	2001	2001
Domestic State Agents...	2009	2010
ATIS State Agent Cases	1999	2005
ATIS State Agent Cases	2013	2013

Transitional Justice Research Collaborative

A Tagline of sorts

[Home](#) [About](#) [Browse Data](#) [Findings](#) [Project Members](#) [Download](#) [FAQ](#) [Links](#) [Feedback](#) [Login](#)

Home

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Time Trends

The figure consists of two line graphs sharing a common x-axis representing years from 1970 to 2012. The top graph, titled 'Number and Strength of Truth Commissions', shows a blue line for 'No. of TC in operation' and a red line for 'Mean TC Strength'. The bottom graph, titled 'Amnesties and Challenges', shows a blue line for 'No. of A in operation' and a red line for 'Mean A Strength'.

MISSION

Geoff Dancy, Ph. D., has been researching the impact of justice mechanisms on democratizing and civil war states. Through his website, he has been able to display all the global data he collected, which includes over 10,000 records, on human rights policies known as transitional justice. The goal of the Digital Research Internship team was to clean up the database, so that it is easier for the data collector to maintain it. Also, the team had a goal to create a new, professional website that has efficient functionality in querying specific transitional justice records.

Scrum Team Members:

Addie Jasica, Lindsay Hardy, Caroline Hixon, Shona, Shan, Sarper Tutuncuoglu, Kodhai Thirumalai, Siyang Hu (Project Manager)

OUR WORK

The Digital Research Internship team started by learning SQL – a programming language for managing databases – and the fundamentals of database management. Then the team studied the transitional justice database and created a plan on how to make the database more user-accessible. The team created a new, professional-looking website through Wordpress. The most challenging part for the team was the next step: connecting the new database to the new website. After a thorough research and the help of several IT professionals, the database was connected to the new website, and the new website was published for the public to access.

Project Owners:

Geoff Dancy

Scrum Advisor:

Jacquelyne Howard

28

<https://tjrc.tulane.edu>

MACROECONOMIC GRAPHS

THE DRI PROGRAM PROJECT POSTERS

DESCRIPTION

Animating PPF (Production Possibility Frontier), Business Cycle and LRAS (Long Run Aggregate Supply) graphs so that students can begin to see the economy from a more dynamic perspective. The graphs are colourful with cartoonish elements so that they are made to "come to life" while they move across the screen to increase student interest.

PROCESS/METHOD

1. Made pencil sketches of the cartoon-like elements of the graph. This included rough sketches to outline the general movement and shape of graphs.
2. Digitized these graphs using Adobe Photoshop and Adobe Illustrator.
3. Broke down the movement of each of the graphs such that we could see every part of graph shift.
4. Tried several methods to make videos of the graph including creating a website and embedding the graphs onto the website and adding a slider that could be used to make the graphs more simulation-like. Also attempted to create our own app that could host the graph and slider.
5. Combined the digitalized images to create videos using Adobe Premiere Pro.

WHAT WAS ACCOMPLISHED

We made three working videos of the shift of the PPF, Business Cycle, and LRAS curves inwards and outwards with the help of cartoons, to better explain the shifts of the individual curves as well their relation to the shift of the PPF.

MOVING FORWARD

The graphs that we have already made will be implemented to teach students about PPF, Business cycle, and LRAS curves.

2018-2019

JUNIOR PHILHARMONIC SOCIETY OF NEW ORLEANS

PROJECT MISSION

The Junior Philharmonic Society of New Orleans' mission is to give talented, young student instrumentalists, vocalists, and dancers an opportunity to perform in a recital held in a professional setting, and to teach music appreciation to children attending the event. This project follows two different tasks: first, to update and catalogue all photos, programs, and articles the Junior Philharmonic Society owns in the Howard Tilton Memorial Digital Library. Second, to rework the Junior Philharmonic Society website to engage with new technology and medias, as well as provide a service to New Orleans community by helping to revive a very important cultural organization.

OUR WORK

Our team worked on two very different aspects of this project. One was to update and organize the different media in the Howard Tilton Memorial Digital Library that is owned by the Junior Philharmonic society. We worked with the Digital Library software to access the media and its associated details. The other part of this project was a website overhaul. Specifically, we changed the look and feel of the website while also creating a more user friendly design. The website has access to the Howard Tilton Memorial Digital Library, postings and videos of performances, recognitions for awards, and access to social media. In this way, we were able to create a new and interactive way for the New Orleans community to learn about this wonderful project.



Jr. Philharmonic Society page on Howard Tilton Memorial Library Digital Library, accessible at <http://digitallibrary.tulane.edu>.



Junior Philharmonic Society of New Orleans website, accessible at <http://jrphilnola.org/>.

SCRUM TEAM MEMBERS: Caroline Hixon, Sarper Tutuncuoglu, Shona Shang, Kodhai Thirumalai, Addie Jasica, Lindsay Hardy, Siyang Hu
PROJECT OWNER: Joan Jensen
SCRUM ADVISOR: Jacquelyne Howard





The Music Box Village Videos

Scrum Team Members

Addie Jasica, Lindsay Hardy, Caroline Hixon, Shona Shang, Sarper Tutuncuoglu, Kodhai Thirumalai, Siyang Hu

Project Owner

Daniel Sharp

Scrum Advisor

Jacquelyne Howard

The Music Box Village is an experimental music venue in New Orleans. Several times a year, musicians are invited to perform and try the different kinds of instruments this venue has to offer. Countless beautiful moments come out of these performances.

The Digital Research Interns have been working with Dr. Daniel Sharp, the chair of the Newcomb Department of Music at Tulane University, to edit and create videos of the recordings from the Music Box Village performances. The goal is to highlight the most original and memorable moments of the concerts into brief 5 minute-long videos. The team utilized Adobe Premiere Pro to create these highlight videos.

The team has also been designing a website to display these videos. The website aims to have information about the Music Box Village, the original instruments at the venue, previous and future concert information, and information about the artists in the videos.

GATHERING COMMUNITY AND STAKEHOLDER FEEDBACK

**Newcomb College Institute's
Digital Research Intern Team
invites you to help
collaborate on and critique
our design for a artificial
intelligence based parking
solution application,
'PARKitNOLA'.**

**We will be gathering
feedback on the website until
April 22nd.**



PARKITNOLA.WIX.COM/MYSITE

A PARKING SOLUTION APP DESIGN

PARKitNOLA



DESIGN SUMMARY

Our application is an innovative use of artificial intelligence to generate and recommend open parking spots first around Tulane University based on your location on campus, but hopefully expanding to encompass other areas in New Orleans. It will require crowd sourcing lot information

PROJECT MISSION

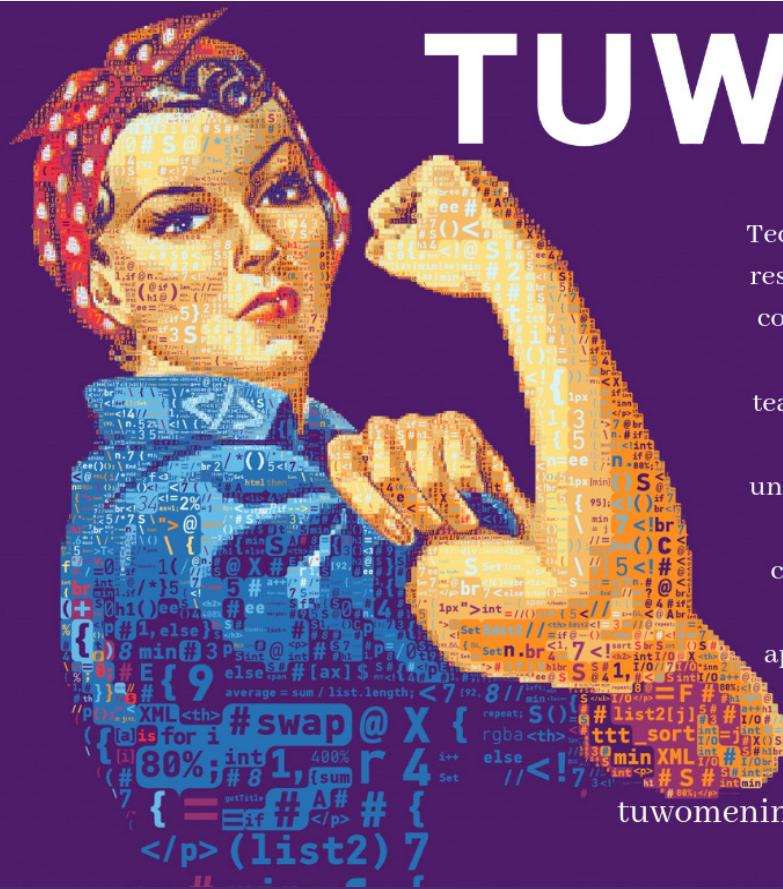
Artificial intelligence technologies are increasingly popular as access to computing power grows. However, AI systems are often developed without including the perspectives of those that will use them.

This project will explore engaging community stakeholders in the research and development of AI systems and will culminate in the design of a recommender system prototype.



The previous two-page spread was part of the email package that we send out to community stakeholders requesting their feedback on our AI-based app design.

The following page offers our team's reflection on the design-thinking process and the results of our requested feedback.



TUWIT ♀

Tulane Women in Technology is a dynamic resource for the campus community, acting as a nexus of learning, teaching, collaboration, and support for all undergraduate students seeking a deeper comprehension of or proficiency in applications of digital technology

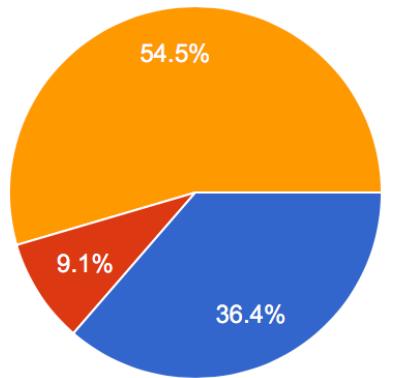
tuwomenintech@gmail.com

 @tulanewit

DESIGN THINKING AND A.I.

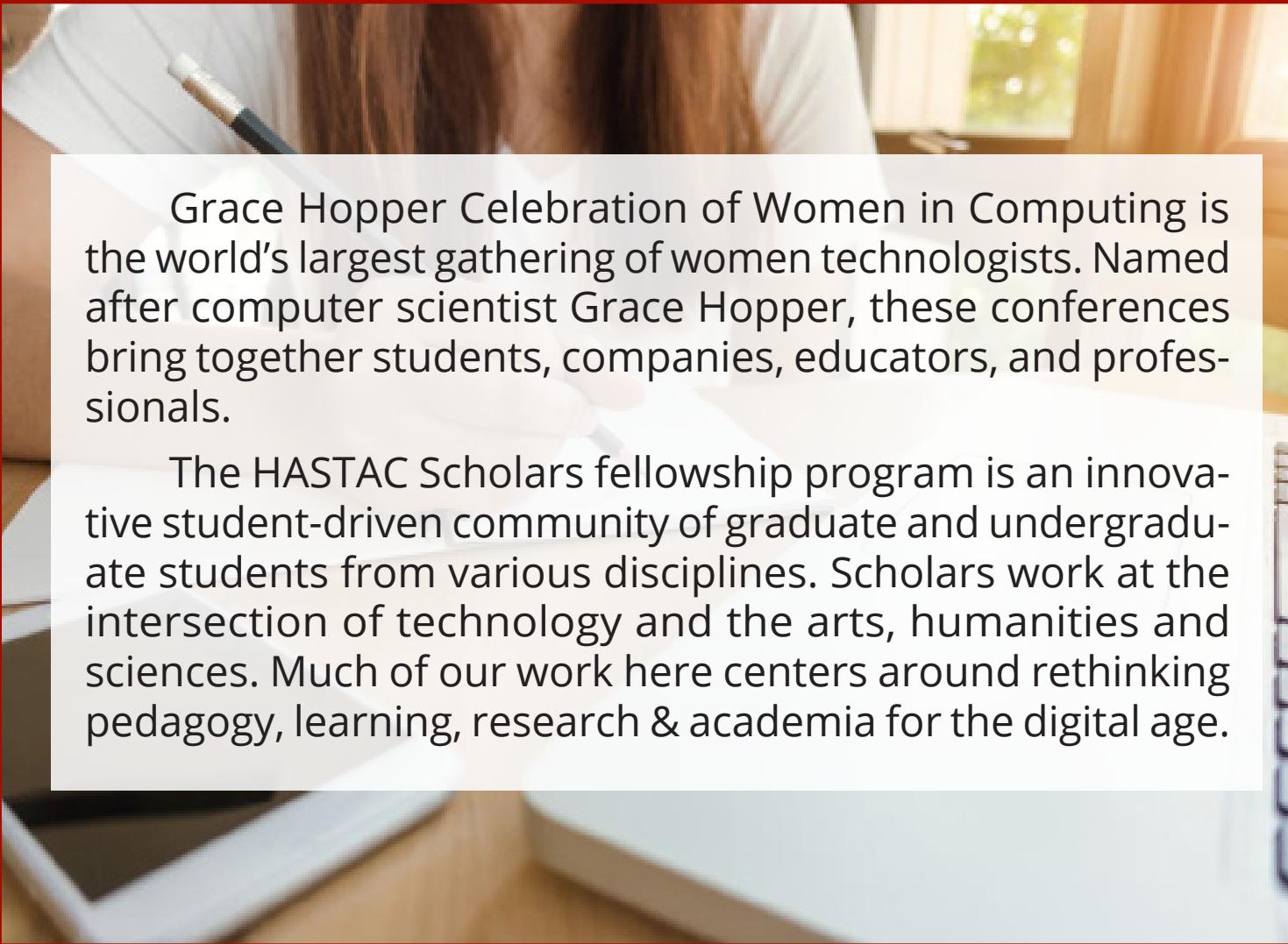
The project "Engaging Community Stakeholders in Artificial Intelligence" first required the organization of a design thinking workshop. The design thinking workshop's main goal was to identify problems and then come up with solutions that would involve AI. This step allowed for collaboration with the Taylor Center, with them supplying us with useful resources and suggestions for how to apply design thinking to our brain storming. With these materials we were able to brain storm ideas for our project and make sure that everyone's ideas were heard. This technique for creating project ideas made us think quickly and utilize the first ideas that came to our head rather than overthinking the whole process. It was a process that reminded each of us to stop second guessing ourselves and our ideas. From this we all came out of the experience in agreement that design thinking was something that we would work to apply to other aspects of our lives!

RESULTS FROM PARKITNOLA SURVEY



- Undergraduate Student
- Graduate Student
- Faculty/Staff
- Community Member

We sent out the website and survey to members of the community who we thought would be interested in providing feedback. From this we received 11 responses. The majority of the feedback that we received was positive and it displayed that people felt like they had a medium to strong understanding of parking in and around Tulane's campus, but would still be interested in an app that could advance their knowledge even more. Continually the reviewers complimented the visual elements of the app and the fact that it focuses heavily on helping users find free parking. The one suggestion that they provided was that they were concerned that people would not fully utilize the app, or remember to check back in after claiming a spot. When we offered suggestions for how to fix this they favored having a push notification being sent to the user's phone as the most effective method to solve the problem.



Grace Hopper Celebration of Women in Computing is the world's largest gathering of women technologists. Named after computer scientist Grace Hopper, these conferences bring together students, companies, educators, and professionals.

The HASTAC Scholars fellowship program is an innovative student-driven community of graduate and undergraduate students from various disciplines. Scholars work at the intersection of technology and the arts, humanities and sciences. Much of our work here centers around rethinking pedagogy, learning, research & academia for the digital age.

Grants

***Grace Hopper Celebration 2018
& HASTAC Scholar Program***



GRACE HOPPER CONFERENCE

Celebration of Women in Computing

"IT'S MORE THAN JUST A CONFERENCE OR NETWORKING EVENT. IT'S EYE-OPENING. IT'S A THREE DAYS PACKED WITH WORKSHOPS, INSPIRATIONS, AND KNOWLEDGE. YOU MAKE CONNECTION AND ENGAGE IN WORKSHOP. MOST IMPORTANTLY, YOU WILL BE INSPIRED BY OTHER WOMEN."



GRACE HOPPER

CONFERENCE



WOMEN IN TECH
2018 HOUSTON

SIYANG HU



SHE CODES 
EMPOWER WOMEN IN TECH
FOSTER FEMALE LEADERSHIP



I HAD AN AWESOME EXPERIENCE AT THE GRACE HOPPER CONFERENCE. I TALKED TO MANY RECRUITERS AND STUDENTS. HEARING THE EXPECTATIONS AND SUGGESTIONS FROM THE RECRUITERS WAS BENEFICIAL. I SET UP SOME CONNECTIONS WITH THE EMPLOYEES OF THE COMPANIES THAT I WAS INTERESTED. 

GRACE HOPPER CELEBRATION

SEPTEMBER 26-28 2018

HOUSTON, TX

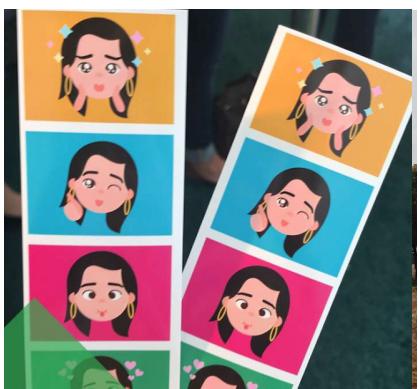
Attending GHC was an incredibly inspiring opportunity to network, explore career paths, and gain confidence in my own abilities. Being surrounded by 20,000 women in tech and allies, really helped me realize that I can have a career in the technology industry.



This conference introduced me to successful women in the industry, allowed me to interview for summer internships at well established companies, and helped mediate the imposter syndrome that is often felt by students, especially minorities in a very competitive industry like technology. It was incredible to see that women do have success in this industry and #WeAreHere.



#WeAreHere
#GHC18



We are Here... at Grace Hopper!

Women technologists from all over the world gathered to celebrate, inspire, change, and love the technology industry. From keynote speaker Anita Hill to Microsoft's AI mosquito trappers, I've learned that there's nothing we can't do! From Grace Hopper's various career and academic panels, I learned about how much opportunity for technological advancement exists in the health care space. I can't wait to see the new exhibited technology in action in research projects around the globe!

KATHERINE WU HO 10/15/18



BECHDEL TEST STATISTICS

WHAT IS THE BECHDEL TEST?

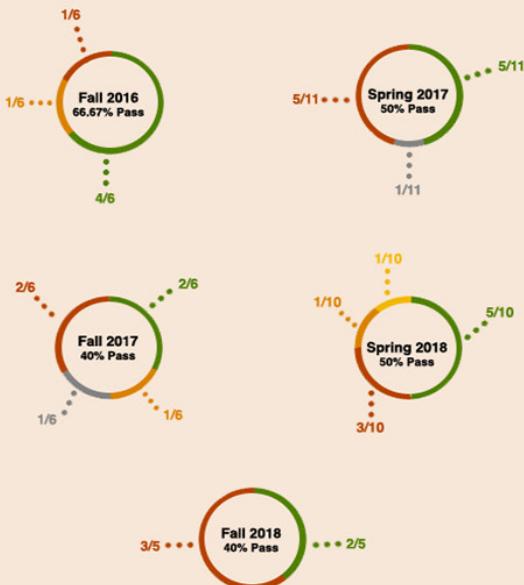
The Bechdel Test, created by Alison Bechdel in 1985, is a measure of the representation of women in fiction—particularly in movies.

To pass the test, a film must:



BECHDEL TEST IN TULANE STUDENT FILMS

Organized by semester of completion, here are the proportions of Tulane Digital Media Production Major senior capstone film projects that pass the Bechdel Test.



PASSES • MEETS 2 REQUIREMENTS • MEETS 1 REQUIREMENT • MEETS NO REQUIREMENTS

Films in gray were created by students who did not respond to the inquiry about this research project. They are not being counted either way towards the percentage of films that pass—they cannot count as not passing, but we simply do not have that data, so it has been omitted from the totals.

Semester 1 Reflection:

This is my first semester as a HASTAC Scholar and I entered the program after submitting a grant proposal and documentary proposal to the Newcomb College Institute in September for a project that I thought of one day in class. As a Digital Media Production major at Tulane, film production plays a huge role in my day-to-day life and my goals post-graduation, but even though the industry is much more balanced than it used to be several decades ago, the positions of power within Hollywood are predominately held by men. Of the 100 top-grossing films of 2017, 84% of all directors, writers, producers, executive producers, editors, and cinematographers were men. This clearly becomes reflected in the films that do make their way to the silver screen because only 57.8% of movies listed in the database on the Bechdel Test website fulfill all three requirements and over 10% meet none of them.

My documentary focuses on Tulane film production students in particular, taking a look at the Digital Media Production (DMP) seniors completing their “capstone film” projects. The DMP capstone is a two-semester long process that serves as an equivalent to a thesis and results in the creation of an eighteen-minute narrative film written, produced, directed, shot, and edited by a graduating student. I take an interest in watching how undergraduates at Tulane write female characters into their stories and look forward to interviewing them to learn about where they draw their inspiration from, as well as (for the women in the department) what it is like to be a female entering the industry today. I have chosen to focus on Tulane students for several reasons. One is because I am going through this DMP capstone process myself right now—I begin writing my capstone film in the spring—and I take a personal interest in connecting with my classmates and hearing about their perspectives on a program that I am already familiar with. Also, Tulane students represent a demographic

HASTAC Documentary

The Research Phase

of people who are about to join a professional network of filmmakers and I was curious to discover whether female representation in student films was stronger, weaker, or consistent with that of female representation in top 100 films. After all, today's undergraduates are tomorrow's famous directors.

I did spend a good deal of time reading articles about other research performed related to women in film and the Bechdel Test in particular, but most of my energy went into figuring out what proportion of Tulane student films pass the test. My original plan was to focus solely on the class that will be completing their projects in Spring 2019, but Dr. Mary Blue—the head of the DMP department—suggested that I reach out to alumni and my project has since expanded to include several previous capstone classes. I reached out to alumni from the most recent five capstone classes that have completed their projects (Spring-Fall 2016, Fall 2016-Spring 2017, Spring-Fall 2017, Fall 2017-Spring 2018, and Spring-Fall 2018) and of the 33 students within those groups, 31 responded with either a link to their film, a copy of their script, or self-reported data about female characters. Alumni were overall incredibly helpful and enthusiastic about participating in my project; most sent along their links without hesitation, a few got excited once I provided more information about my intentions, and a few even engaged in lengthy discussions with me about women in film or about the capstone filming process in general. Only one student expressly declined participation, and one agreed but failed to actually send his script, but 31 out of 33 is a significant turn out and I am pleased with the amount of data I have collected.

Along the way, there were some limitations that I did not anticipate going into this project. Because of the nature of certain films, it was difficult to determine sometimes whether a movie passed the Bechdel test. For example, one film contained many gender nonbinary characters and although it did end up passing the test regardless based on its female characters, it led me to realize that I was not sure how to factor gender nonbinary characters into the test. This measure of representation would have to be adjusted for films that contain gender nonbinary characters. Another film featured an oak tree as the main character, which was incredibly creative but made it difficult to discern whether it passed the test. There were human characters, but the tree was the main one, so I had to think about whether to include that project within my research because of its uniqueness.



In asking professors about potential participation, I have received some wonderful guidance. Professor Nancy Gunn may technically be in the theatre department, but she has plenty of experience making documentary films and working on reality TV, and she was able to provide some advice on how to shoot interviews and when to contact potential interviewees. I also met with Professor Matthew Martinez, who teaches some introductory courses within the DMP department including "Introduction to Creative Industries" and "Digital Filmmaking Fundamentals I." In learning more about my project, he agreed to participate in the spring and made some helpful suggestions, such as looking into the breakdown of DMP majors by gender, particularly within each class. Professor Robin Blanche in the DMP department teaches "Development: From Pitch to Picture" and has enthusiastically agreed to sit for an interview next semester.

I have refrained from reaching out to students finishing their capstone projects in Spring 2019 thus far because this semester they were writing their films and I was worried about the ethics of getting them involved too early. For one, telling them about a feminist-oriented film project might have convinced them to write in female characters where they might otherwise not have, therefore skewing the results and undermining the validity of my research statistics. A second factor to consider was that they are being graded on in their scripts, which brings even more layers of complication: they may have felt uncomfortable submitting them to me before submitting them for grading, or even if they were willing to send rough drafts, it's likely that the scripts have been heavily edited between the first draft and the finals week submission. Their projects are due tomorrow (12/14/18), so I will begin to reach out to those students about interviewing over the weekend and plan to develop a tentative interview schedule over my winter break.

I would like to thank Jacquelyne Howard for all of her support as my mentor throughout the semester. It has been wonderful to connect with NCI and to utilize the resources that it offers, and she has been particularly good at checking in with me about deadlines and providing support wherever I need it. I look forward to working with her and with Aidan Smith once the Women in Film group gets off the ground, and I am incredibly grateful to the Newcomb College Institute for the HASTAC Scholars grant.



Keira Rosner is a junior at Tulane University double majoring in Digital Media Production and English, with a minor in Psychology. She is originally from Westchester, New York and chose to come to Tulane because she wanted to experience life in a different part of the country, because she felt at home on campus, and because New Orleans is such an amazing city. Keira is currently using her HASTAC Scholars grant from the Newcomb College Institute to create a documentary about the representation of female characters in student capstone films within the Digital Media Production(DMP)department at Tulane. This semester was the research phase, which included reading articles about the history of the Bechdel Test and connecting with DMP alumni to figure out what proportion of their films pass the test. When she is not studying for exams or out in the field with her camera, Keira loves to write creative nonfiction, curl up with a good book, go for strolls through Audubon Park, check out cool art exhibits around New Orleans, jam out to nineties music, and eat an impressive amount of chocolate.



FILM, FEMINISM, & FRIERET

Exploring how female characters are portrayed in Tulane Digital Media Production Major capstone films and the experiences of women filmmakers in the industry



Student Groups

Society of Women Engineers

& Tulane University Women in Tech

Society of Women Engineers

BY WOMEN FOR WOMEN



who we are:

The Society of Women Engineers is a national organization founded on principles of advancing and empowering women in engineering and other STEM fields.

Tulane's collegiate SWE section is a community of undergraduate women and men united in supporting women in engineering disciplines on campus.

what we do:

SWE Tulane focuses on three main points: the building of **community** among undergraduate women in engineering programs, providing **professional development** opportunities through SWE's national conference and workshops, and participating in **outreach** at Tulane and throughout New Orleans.

know the stats:

13%

OF ENGINEERS IN THE WORKFORCE ARE WOMEN

>32%

OF WOMEN LEAVE STEM PROGRAMS IN COLLEGE

10%

LESS PAY EARNED BY WOMEN ENGINEERS THAN MEN

MISSION STATEMENT:

"STIMULATE WOMEN TO ACHIEVE FULL POTENTIAL IN CAREERS AS ENGINEERS AND LEADERS, EXPAND THE IMAGE OF THE ENGINEERING PROFESSION AS A POSITIVE FORCE IN IMPROVING THE QUALITY OF LIFE, DEMONSTRATE THE VALUE OF DIVERSITY."



Meghan Bush
President (2018-20), Treasurer (2017-18)

My time with SWE has been one of the most rewarding components of my undergraduate career. Having a space on campus to meet, work with, and befriend other female engineers on campus gave me a sense of belonging, something that I was missing in my majority-male classes. One of my favorite experiences on the executive board has been planning and attending the SWE national conference for the past two years. With over 15,000 attendees and 300+ companies actively recruiting, SWE's conference is an invaluable experience for expanding one's personal professional skills.

Claire Davis

Vice President (2019-20), Professional Liaison (2017-19)



I love that the Society of Women Engineers community is huge and multi-faceted. On Tulane's campus, I have the opportunity to interact with and help build relationships between fellow SWE students. Beyond college, there is an entire professional network of SWE members that is eager to connect with us and offer career advice. Being on SWE executive board gives me the chance to communicate with those working engineers and foster a rapport between the professional side of SWE and our university chapter.



Peyton Gibler
Outreach Coordinator (2018-20)

My experience as the Outreach Coordinator for SWE has been an incredibly rewarding experience. It has given me so many opportunities to get to know fellow women in engineering and participate in professional development opportunities. The outreach events I have participated in on campus and in the community are some of my favorite memories at Tulane. I am so thankful for the connections I have made and experiences I have had with SWE.

Interested in STEM Outreach?



contact



<https://www.facebook.com/tulaneswe/>



@tulaneswe

Tulane's School of Science and Engineering hosts two big outreach events per semester:

GIST (Girls in STEM at Tulane) and BATS (Boys at Tulane in STEM). At these Saturday events, elementary and middle schoolers from the New Orleans area learn about science topics through experiments and activities led by Tulane professors and students. We are always looking for more volunteers - if you are interested in helping out at the next event, contact us through our Facebook page!

TULANE WOMEN IN TECHNOLOGY

Whether through building user interfaces, custom apps, or problem solving programs, technology is integral to modern life.

Technological literacy is a fundamental skill set needed for anyone entering the professional world. As a nexus of dynamic learning, WIT provides skill-building workshops and creates a community space for women studying, working with, or simply interested in technology.



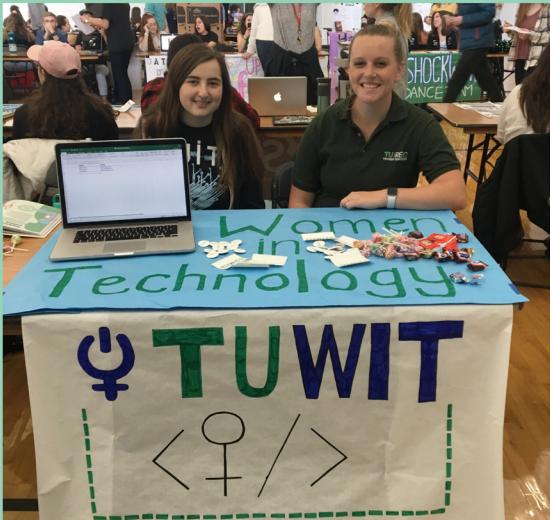
The 2018-2019 Executive Board (left to right):
Jing Wang, Rosalind Kidwell, Sam Rothman,
Lana Biren, Caroline Hixon

2018-2019 EVENTS:

- 10/4: Debra Stack Round Table
- 10/19: Graphic Design Workshop
- 11/3: Girls in STEM
- 11/13: Social Media and Branding Workshop
- 3/19: Leaders in Technology Panel
- 3/30: Girls in STEM
- 4/11: Music and Technology Workshop
- 4/16: Python Coding Workshop

"I love attending the workshops and meeting awesome techies!"

- Jing Wang, Social Media Chair



Lana Biren and Rosalind Kidwell at Tulane Activities Expo

"WIT opened my eyes to all of the possibilities in the tech industry, and encouraged me to complete the computer science major at Tulane."

- Rosalind Kidwell, Marketing Chair



Women in Technology's annual Graphic Design Workshop



Jing Wang and Caroline Hixon at Girls in STEM event

"My favorite thing about being in WIT is the friendships I've made. It is inspiring to be around such committed, creative, and passionate women!"

- Caroline Hixon, President

TUWIT ♀

CONTACT US AT:
TUWOMENINTECH@GMAIL.COM



NEW.COMB: TECH IN MIND