

2021 SBAA Societal Impact Award Proposal

from the

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Submitted by

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Innovation Strategy Name: Virtual Insight Sprints

Innovation Statement: Since passage of its last strategic plan in 2015, the Robinson College of Business has been conducting externally sponsored projects that bring students, faculty, and executives from partner organizations together to conduct applied innovation research with a focus on using new technologies including analytics, data science, and computer science to produce unique insights and solutions. Known as Insight Sprints, these engaged scholarship projects that provides concentrated time and effort with easy access to tools, talent, and resources to create and explore structured and unstructured data sets that allow the sponsor to test possible business innovations and decisions before committing to multi-million dollar investments.

Until COVID, each Insight Sprint was conducted in one of the several physical labs built by the college. Each lab has a different theme: the Data Science Lab, the Fintech & Blockchain Innovation Lab, the Legal Analytics Lab, and the Social Media Intelligence Lab. Robinson’s initial Insight Sprint partners were the American Red Cross, Starr Companies, SunTrust Bank (now Truist Financial), Georgia-Pacific LLC, and others.

The D&I Platform: A Collaboration between the Robinson College and Dell Technologies. In early January 2020, Dell Technologies, Inc. (Dell) reached out to the Robinson College to explore if we could co-develop applications to support their ambitious diversity and inclusion (D&I) goals:

<p>Diversity</p> <ul style="list-style-type: none">• By 2030, 50% of Dell’s global workforce and 40% of its global leaders will be women• By 2030, 25% of Dell’s U.S. workforce and 15% of its U.S. leaders will be Black/African American and Hispanic/Latino minorities	<p>Inclusion</p> <ul style="list-style-type: none">• Each year through 2030, 50% of the people empowered by its social and education initiatives will be girls, women, or members of underrepresented groups• By 2030, 95% of our employees will participate in annual foundational learning on key topics such as unconscious bias, harassment, micro-aggression, and privilege• By 2030, 50% of Dell employees will participate in Employee Resource Groups to drive social impact
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Two specific projects were identified: the **D&I Platform** and the **D&I Dashboard**, respectively.

D&I Platform Project

The objective of the D&I Platform is “to develop a functioning prototype of a software platform that demystifies STEM & STEM-related careers for young girls & early/mid-career women”. Specifically, the platform would:

1. Demystify STEM & STEM-related careers for girls & early/mid-career women.
2. Offer a variety of digital assets, content, and ways to connect with STEM & STEM-related careers that meets girls & early/mid-career women where they are with interests.
3. Highlight a positive outcome for engagement on the platform i.e., internship, free summer program, lunch with a role model, etc.
4. Feature a virtual mentor to engage and interact with user throughout experience on platform.

Students in Robinson’s Master of Science in Information Systems (MSIS) program accepted the challenge to develop the platform. Students acquired a variety of skills in their *Emerging Technologies* Mini-mester I 8-week class including, Design Thinking, Agile Development, Mendix, and Neptune (the latter two are low-code development platforms). Students applied those skills in their *Digital Innovation Experience* Mini-mester II class to develop the app. Two groups of students adopted the agile method, conducted the weekly sprints, and developed the applications using either the Neptune or Mendix low-code application development platforms. Executives from Dell provided weekly feedback throughout the process.

D&I Dashboard Project

The objective of the D&I Dashboard application is to assess the state of diversity in an organization. The goals of this project were:

1. Develop a diversity score for four dimensions: gender, age, ethnicity, and aggregate.
2. Visualize diversity data and compare it to a target to illustrate a diversity grading system and to provide insight regarding the likelihood of attaining diversity goals.
3. Prepare an integrated dashboard that is updated against “live” data.

Students in Robinson’s Master of Science in Data Analytics (MSDA) program sponsored by the college’s Institute for Insight accepted the challenge to develop this platform. Dell provided the initial dataset of

employee data to develop the app. Three teams of students developed the components for the project – the diversity score, the visualization, and the dashboard.

Outcomes and Key Messages

We propose to highlight four primary takeaways for the audience participants of this talk.



The immediate programmatic innovation we will discuss is how we took the in-person applied innovation process intended to take place in purpose-built physical labs and successfully completed these creativity projects in virtual environments. We will highlight the technology that allowed this to happen and the ways we managed the students to develop the applications in six weeks while collaborating completely online. We are proud the applications were all well received by the Dell



executives. Additionally, we will highlight that the app developed by the M.S. in Data Science and Analytics students using the Mendix development platform received first place in Mendix's [student app contest](#) later that year.

We will next discuss for audience members that the student team who developed the D&I Dashboard was able to provide the Dell executives additional insights based on the sample data they were not requested to consider based upon the original project scope. This outcome regularly happens on these projects as robust research methodology often produces insights that you do not expect.

The team was able to provide the following additional recommendations as a result of their work:

- Tie diversity to business outcomes (revenue, MARC/ERG participation, innovation, etc.).
- Deploy artificial intelligence to predict the diversity scores.
- Create a chatbot to make recommendations to improve D&I.
- Create dashboard showing U.S./global [technology] labor market diversity.
- Include additional data in the analysis: Hiring/Attrition/Promotion demographic data.

We propose to close the talk by discussing the significant tangible and intangible value Insight Sprints creates for students, faculty and our corporate partners. Since we launched the concept, we have generated close to \$2m in financial support executing these projects, more than 400 students have participated in Insight Sprints coming from numerous academic programs, and we have engaged more than 40 partners to explore their data and to co-develop solutions. SunTrust Bank (now Truist Financial) executives conducted an internal assessment in Summer 2019 and estimated the bank generated a 900% return on investment by commercializing the outcomes of the Sprint across the platform of the bank, clearly generating positive and tangible impact both for our students and for the bank.

In another example, an early-in-career assistant professor in the Institute for Insight recently found publication success based upon his participation on an Insight Spring that he oversaw with one of Robinson's Fortune 500 strategic business partners, WestRock. While working on the project, he noted a gap in the scholarly literature based upon the research question considered in the project that he and his coauthors successfully addressed at the conclusion of the project. The resulting methodological paper was published in a premier journal. The episode demonstrates a clear triple win. The faculty member got a scholarly publication from a funded research project. The corporate partner got a solution to a difficult problem for which they were seeking an answer. And a group of Robinson graduate students had a tremendous learning experience addressing the technical aspects of a complex problem. Perhaps more importantly, by being members of Robinson's diverse student body and working on this project, they learned the intangible lesson that insight comes from people with different talents, perspectives, and experiences coming together to look at the world in new and unexpected ways; that solutions are better and arrived at faster through collaboration when we work with others to resourcefully harness the power of diverse ideas to build a better future for both business and society.

We appreciate your consideration of our proposal.