

Letter from the Editors

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Fall 2021 SoReMo Fellowship Projects - Volume 2 Editorial

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Themes & Vision

We are thrilled to introduce the first set of projects completed during Fall 2021. Volume 2, Issue 1 of the [SoReMo reports](#) features the following three works:

- *Reaction-diffusion spatial modeling of COVID-19 in Chicago*, by Trent Gerew;
- *The Data-Driven Narratives of Epidemics: A History of Chicago's Public Health Data Pipelines*, by Sara Simon;
- *Education Disparity in Chicago: A Statistical Analysis*, by Michael Kralis.

The **aim of the technical reports** is twofold:

1. Showcase student research and walk them through the real academic publishing process,
2. Make available their work in enough detail so that it can be *continued* and built upon in the future.

A common ground

In a world that is a mess, the data is no better. The data these Fellows tackled presented many issues, also discussed in [this Illinois Tech Today story](#).

Their projects reflect some of the key issues with dealing with data, relating the various models and analyses back to the real world, and gaining a better understanding of the problems through a historical lens.

Breakthroughs

Fall 2021 was only the second semester of the SoReMo initiative at Illinois Tech. With minimal guidance, the Fellows completed monumental tasks:

- Proposed a project topic,
- Redefined the scope so it fits within a semester,
- Narrowed down data issues from publically available data,

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- Sifted through historical information to make sense of it all,
- Presented minor and major refinements of their work throughout the semester, seeking guidance and supporting each other,
- Persevered through research lows! of which there are many, as such is the nature of research,
- Each completed their comprehensive report on their projects.

Two topics & diverse perspectives

The human side of humbers

It so happened that all projects in Fall 2021 focused on one of two themes: the COVID-19 pandemic and education disparities in Chicago.

The pandemic-related projects tackled both modeling and data issues, as well as the human and historical context to ‘making sense of the numbers’. The projects focusing on education—of which one is published in no.1 and no.2 will contain the other two—revolved around a multidisciplinary view of education disparities in Chicago: how do we read data? what statistical insights can we make and how does one measure the impact of various layers of inequities? how do we better tell the human story around equity data?

In fact, Volume 2, Issue 2 [forthcoming] will contain two more Fellows’ reports, which round out the interdisciplinary view and provide stories related to the Education project, with the aim of enhancing the human and historical perspectives:

- Jati Zunaibi’s *Design Justice Within Education* will focus on the architecture side of the education story.
- Sandy Orozco’s *Evidence-Based Strategies: A Study to Improve Diversity and Inclusion in Illinois Higher Education Institutions* will give voices to the underrepresented groups at Illinois Tech, and tell their stories with the backdrop of public education in Chicago.

The Editors of this journal and all SoReMo advisers faculty are very proud of the Fellows’ accomplishments in such a short period of time and are sure you will enjoy reading about their work.

The SoReMo Context

“SoReMo” stands for **S**ocially **R**esponsible **M**odeling, computation, and design.

The SoReMo initiative was built from the grassroots during the 2020/21 academic year at Illinois Tech. The guiding principle is to **empower students** to make change they are passionate about. It all begins with a simple question:

“What do **you** want to do?”

Through this initiative, we seek to pass down this question to students at Illinois Tech. Students from all majors and backgrounds, at any level.

Students are invited to imagine problems and seek solutions broadly.

SoReMo Fellows have the freedom to imagine, create, solve.

Students who are interested in becoming SoReMo Fellows are invited to apply by proposing a project. Those most competitive are then selected by a panel of SoReMo core faculty members, who evaluate all submissions based on the quality of the proposed work, potential for interdisciplinary collaboration, and broader impact.

During the course of the semester, through a paid fellowship, Fellows do the following:

- Propose a project to work on - independently of any course or assignment;
 - Stay within or step outside their disciplines;
- Expose their idea to a diverse group of faculty, advisers, subject matter experts;
- Work with those people who have the tools that can help advance the student’s agenda;

- Propose creative solutions identifying future work and share them with the main stakeholders.

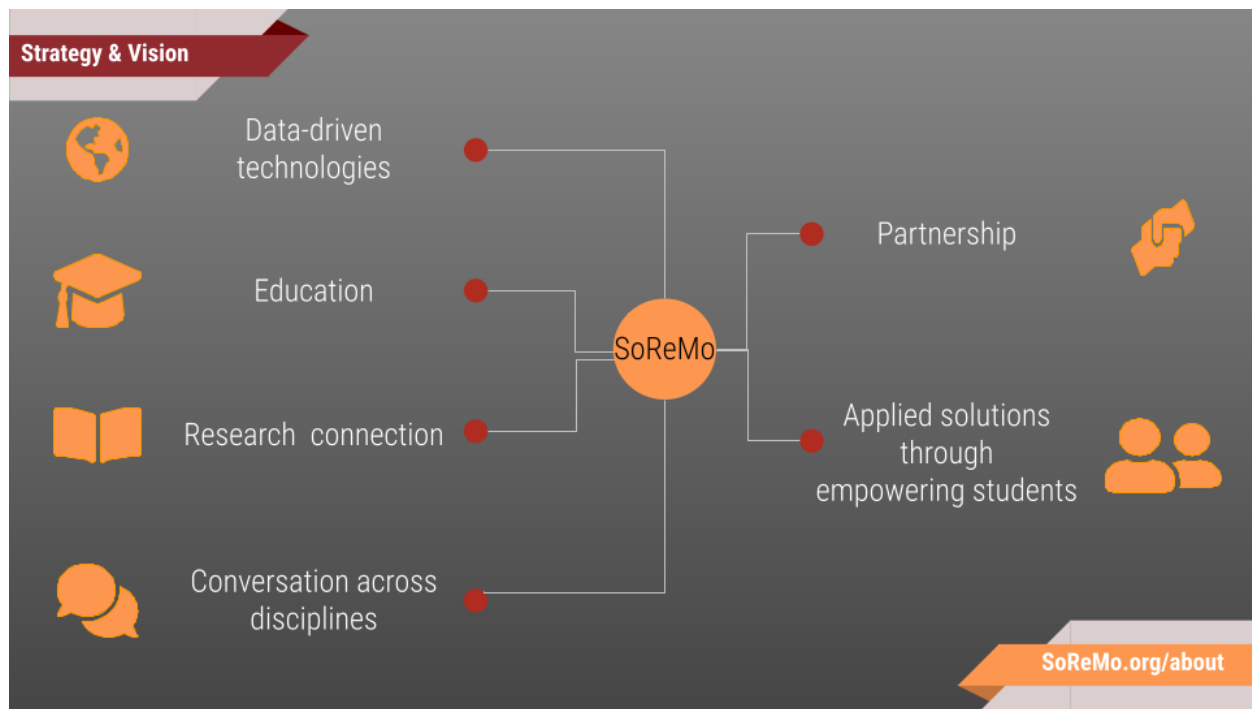


Figure 1: SoReMo's place in higher education: our vision

Finally, to close out their projects, Fellows are required to write a technical report. This publication showcases those reports. Each report has been reviewed by a group of peers and faculty, and has been revised at least once.

The process mimics exactly what happens in formal academic publishing. But the authors retain copyright of their technical reports and may choose to submit them or build on them for future projects or publications.

More information

Our homepage has additional information about the initiative, related events, past Fellow projects, and current and upcoming opportunities to get involved.

Acknowledgements

Our team is ever evolving and welcoming new contributors. We gratefully acknowledge everyone who has taken part in the Fall 2021 SoReMo Forum in any form, all the faculty and advisers and external collaborators who have helped the Fellows in a variety of ways in completing their projects.

The anonymous referees—students, faculty, and outside experts—were instrumental in evaluating and improving the technical reports. We as editors are grateful for their time and service.

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