FORESIGHT_

FORESIGHT ALUMNA ANNE BOYSEN TO TEACH DATA MINING

By: Andy Hines

One of the challenges in leading the Foresight program is keeping up with new tools and approaches to supplement the core curriculum. Perhaps no topic is receiving more buzz than big data and analytics and how they might influence the practice of foresight. During the 2018 Foresight Spring Gathering "Scanning the Fringe", Foresight alumna, Anne Boysen, gave an outstanding presentation on "Data Analytics for Scanning".



Anne Boysen

Based on that presentation, Boysen was asked if she would be willing to put together a summer course on the broader topic. The Foresight program is pleased to announce that she will be teaching a "Data Mining" course during summer 2019 at the University of Houston. Among the many interesting and relevant topics are:

- Using Rapidminer & R
- Data Mining in Exponential Times
- Decision Trees
- Neural Networks
- Text Mining and NLP
- · Foresight in Machine Learning

The planned data mining course is sure to be a very valuable addition to the Foresight curriculum.

AMERICAN ALLIANCE OF MUSEUMS ESTABLISHES STRATEGIC FORESIGHT SCHOLARSHIP

By: Andy Hines

The American Alliance of Museums has awarded its first ever Alliance Scholarship for Strategic Foresight to Terrance Hunter. Terrance is project manager at the Holocaust Memorial Resource and Education Center of Florida. Terrance also serves as the history section chair for the Florida Association of Museums.

The scholarship was specifically established to promote one of the Alliance's strategic goals: To influence and inspire action in the field by cultivating a cadre of museum futurists to foster thought leadership around long term strategies museums will need to thrive in coming decades. The champion behind the scholarship, Elizabeth Merritt, founder and director of the Center for the Future of

Museums, observes: "The American Alliance of Museums believes that strategic foresight is an essential skill for museum leaders. The fact that 28 people applied for our first scholarship demonstrates that our members agree!"

As the Alliance's 2019 Foresight Scholar, Terrance attended the April 29th – May 3rd, 2019 Strategic Foresight Seminar at the University of Houston. Terrance and other professionals from around the world had an opportunity to earn a Certificate of Strategic Foresight.



EXPLORING THE BUILT ENVIRONMENT FOR CII

By: Dr. Andy Hines

Dr. Andy Hines, assistant professor and coordinator of the Foresight graduate program, led a team to explore "The Future of the Built Environment" during the fall 2018 semester. The \$30,000 research award was with the Construction Industry Institute (CII), based at The University of Texas at Austin. Team members included University of Houston alumna, Maria Romero, and four current Foresight graduate students, Bes Baldwin, Hannah Kim, Collin Sledge, and Cindi Stuebner.

The team used scenario planning to explore possible futures for the built environment with the goal of identifying important emerging issues that the CII can research in service to its member organizations.

The scenarios shown in the figure below are framed around the two critical uncertainties, the most important and uncertain factors regarding the future of the topic. These uncertainties frame the matrix, providing boundaries and focus for the set of four scenarios. The logic is to spend time thinking about the factors that are crucial to the future, especially those with least clarity or vision of how they might play out. This gives the organization the ability to design strategies, plans, and tactics that will enable it to strategically respond to whatever way the uncertainties unfold. This enables organization to feel confident that it is prepared for a full range of future possibilities.

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SHRINKING

COOPERATIVE

PROCESS

BIZ

MANUFACTURING MODEL

The shift toward a manufacturing model helps the industry meet continued growth in structures that are put together flash mob style with projects coming together more quickly due to standardization and more effective collaboration.

CONSTRUCTION SMARTENS UP

Greater collaboration enables the industry to get more done with less to meet the shift to fewer, but smarter, more integrated, and multipurpose structures.

CONSTRUCTION FOOTPRINT

GROWING

JUST DOING ENOUGH

Business-as-usual with defensive incremental innovation to keep potential new competitors at bay with established players fighting harder over a shrinking profit pool.

New Tech Competitors

A highly competitive environment sparked by the entrance of new high-tech based players seeing an opportunity to disrupt and challenge established players.

ADVERSARIAL

CII & UNIVERSITY OF HOUSTON FORESIGHT

FUTURES OF THE BUILT ENVIRONMENT

FORESIGHT_

EXPLORING THE BUILT ENVIRONMENT FOR CII

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These options provide a robust list of potential research projects for CII to consider. They sort into three themes:

- **How business gets done:** These options/issues revolve around the business of doing construction, how it's done, and who it's done with.
- Technology: These options/issues centered on potentially disruptive emerging technology with a particular focus on how they might be applied within the construction industry.
- Environmental: These options/issues consider how environmentally-related issues could have a disruptive effect on the industry.

EXPLORING THE FUTURE OF THE CIRCULAR ECONOMY

By: Dr. Andy Hines

The Foresight graduate program explored the future of the circular economy for a Fortune 500 company during the spring 2019 semester. Dr. Andy Hines, assistant professor and program coordinator, worked with a team of two University of Houston alumnae, Maria Romero and Kimberly Daniels, and four current Foresight graduate students: Donna Harris, Hannah Kim, Tim Murphy, Natalie Pacheco, and Karen Rosenthal.

The team has used the Framework Foresight method

to explore possible futures for the circular economy, with the goal of identifying potential service offerings that the client could offer. The circular economy concept was popularized by the Ellen MacArthur Foundation. It involves rethinking how we use finite resources in order to create a more sustainable economic model. It is based on three principles: (1) Design out waste and pollution (2) Keep products and materials in use, and (3) Regenerate natural systems.

The team is looking forward to the challenge of working on this topic of key importance to the future.