



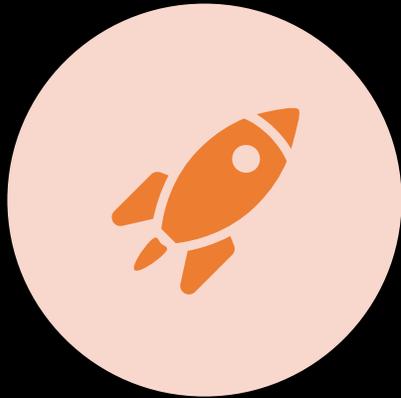
Full-Time NTT Faculty Fellowship Program:

An Inspiration Session

November 30, 2023

Jackie Isaacs
Vice Provost for Faculty Affairs

FTNTT Fellowships



Launched in
2019-2020



Designed to provide an
opportunity for FTNTT faculty
to engage in professional
activities that benefit both
them and the university.



Many different types of
proposals can/have
been approved



Activities to consider...

- Visiting another institution of higher learning to observe and learn new strategies, methods, or innovations in teaching;
- Improving one's expertise in subject matter or teaching methods;
- Engaging in professional activity at a company, academic, government, or non-profit organization, or laboratory, in support of positively impacting the faculty member's teaching/research/creative activities, or innovation (entrepreneurial) endeavors;
- Focusing on research at one of our network campuses that is consistent with our current university focus (e.g., health, sustainability, security, artificial intelligence, cognitive and brain health).



Eligibility

- Fellowships available to FTNTT Faculty at associate or senior ranks
- Must have been employed by university for minimum of 6 years
- Fellowships one semester in duration
- Cannot be used to teach at another institution
- Cannot be paid by another institution



Application Requirements

- Proposed plan
- CV with TRACE summary table
- Letter of support from unit head(s)
- Agreement to submit report upon return too campus



Application Process



Proposal and letter of support to Associate Dean for Faculty Affairs by

February 26, 2024



Dean's Office submits recommendations to Vice Provost for Faculty Affairs by

March 29, 2024



Notifications from Office of the Provost by
April 12, 2024



Other Information



Medical/
dental/ life
insurance
benefits
maintained



Contributions going
to retirement
program maintained



Salary at 100%
for 1 semester



Written report
due to chair,
dean, vice
provost after
completion



Duties resumed
for at least one
academic year
following
fellowship

COMICS, RESEARCH, AND SERVICE

My Experiences With The FTNTT Faculty Fellowship

Luke Landherr (they/he)
COE Distinguished Teaching Professor
Associate Chair of Undergraduate Studies
Chemical Engineering
November 30, 2023



Goals

- 1) Use the time and freedom provided by the fellowship to further develop my research program
- 2) Dissemination of research
- 3) Leadership within the chemical engineering professional society (AIChE)



Goal #1: Further develop research

- Visualization research using comics and videos as learning tools in STEM
- Wrote a 200 page 'graphic novel textbook' on thermodynamics
- In discussion with MITeen Press
- Submitted successful \$4k AIChE Foundation grant



So let's take a second at this point and meet **Sadi Carnot**, a French scholar and soldier, born in 1796.

When Carnot was just a kid, his father, Lazare, was Napoleon's minister of war for **eight years**. Lazare resigned in **1807** to focus on teaching Sadi and his brother in mathematics, science, languages, and music

Sadi Carnot showed great intelligence and potential, and he went off to one of the leading French educational institutions at **age 16**.

And when Sadi was 16, Napoleon returned.

He went on to study military engineering.

This changed everything for Sadi.

Lazare was appointed a minister under Napoleon again, but Napoleon's rule lasted only **100 days** before he was exiled.

Four months later, Lazare was exiled to Germany for the rest of his life, too.
(It didn't help that Lazare had voted to behead the king)

Sadi, meanwhile, was still in the French military, trying to develop his career. But, possibly given his father's previous roles, Sadi was treated poorly and had no chance for promotion.

So he retired at age 23 and spent the next 13 years studying physics.

Eventually committed to an asylum, he died at age 36 in a cholera epidemic.

And given the contagious nature of cholera, all of Sadi's notes and books were buried with him!



Goal #2: Dissemination of Research

- Gave an invited seminar at Cornell University
- Gave one presentation at AIChE

DRAWN TO STEM!

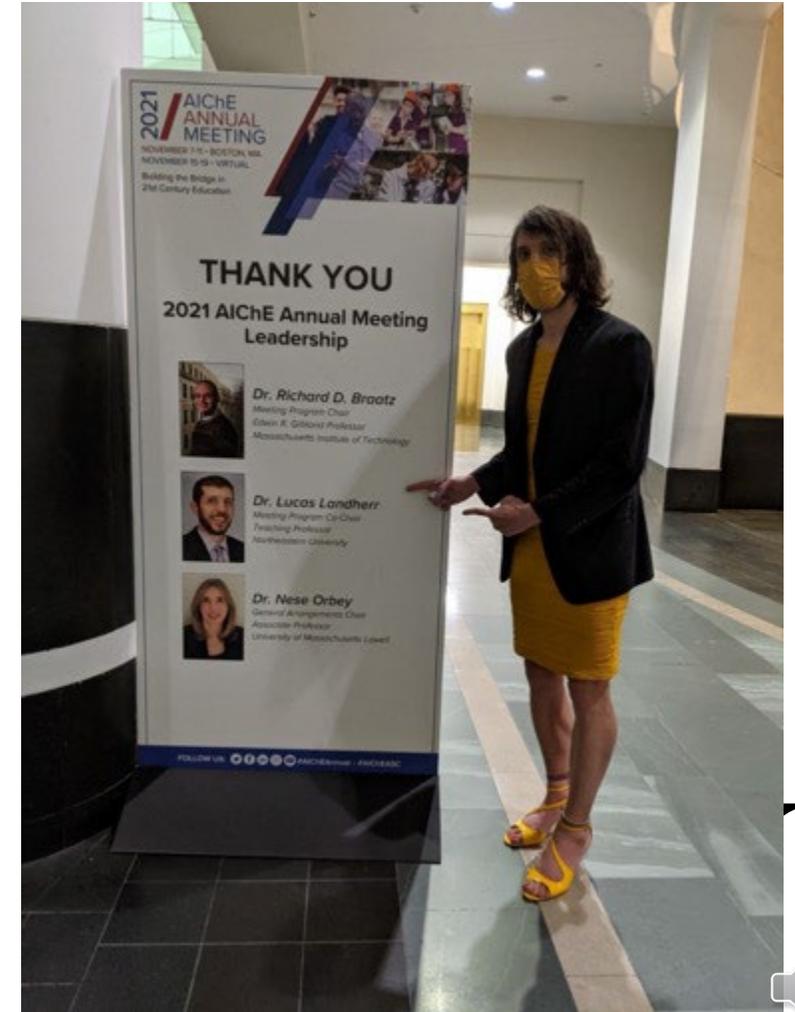
***THE INTEGRATION OF VISUALIZATION
INTO EDUCATION THROUGH COMICS AND
ANIMATION TO IMPROVE LEARNING***

Dr. Lucas Landherr
Assoc. Chair of Undergraduate Studies
Chemical Engineering
Northeastern University

Cornell University
October 4, 2021

Goal #3: Leadership within AIChE

- Served as the co-programming chair for the AIChE Annual Meeting
- Organized the inaugural IDEAL (Inclusion, Diversity, Equity, Anti-Racism and Learning) joint panel, session, and reception



How has this enabled my career?

- Helped clarify to me (and to the department) my interest and commitment in research
 - Reorganized my obligations and teaching load
 - First NSF grant to start in 2024
 - Additional AIChE Foundation grant received in January 2023
 - Took on my first grad student last year
- Further solidified my leadership in AIChE professional society
 - Elected Director of Education Division in 2023
 - Will run for overall Board of Directors in 2024
- (Also the book getting published will be nice)



BOOK PROJECT 1

SHEILA WINBORNE, TEACHING PROFESSOR, PHILOSOPHY AND RELIGION



F. HOLLAND DAY
(b.1864 - d.1933)



F. HOLLAND DAY,
AMERICAN PHOTOGRAPHY MOVEMENT
(LATE 1800s TO EARLY 1900s)



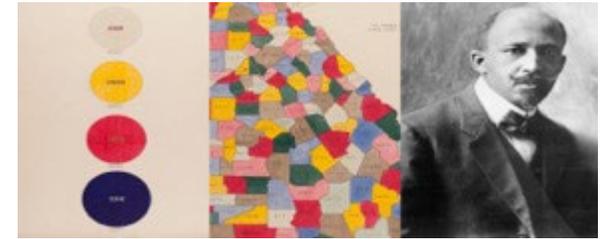
COMPILED BY W. E. B. DU BOIS
WITH THOMAS J. CALLOWAY,
AMERICAN NEGRO EXPOSITION UNIVERSELLE (1900)

BOOK PROJECT 2



RESEARCH

Cooper-Hewitt Smithsonian Museum of Design, New York City (Feb 8-9, 2023)



Smithsonian National Museum of American History (Mar 30, 2023)



Smithsonian National Museum of African American History and Culture (Mar 31, 2023)



Smithsonian National Museum of African American History and Culture (Mar 31, 2023)



Maximizing Impact: Creating Engaging Learning Communities through Learner-Centered Design

Motivation:

- Most faculty/subject matter experts do not have training in learning design (Khalil & Elkhider, 2016).
- A resource that is absolutely needed in higher education, especially given the renewed focus on increasing learner engagement and effective course alignment to support both our students and faculty.
- Northeastern has both learning designers (EDGE) and a learning research organization (CATLR), but no intentional focus on building the learning design skills of faculty

Goal:

- Create a self-directed online resource designed for faculty subject matter experts who are interested in acquiring basic learning design skills to develop learning experiences that: 1) are fully aligned across outcomes, assessments, and teaching strategies; and 2) effectively include and engage *all* learners, whether in F2F, online, or hybrid learning contexts
- Update my design skills with authoring tools and technologies



Outcomes

- Self-directed course
- 3 modules and 13 lessons:
 - Learn – 5 lessons
 - Design – 4 lessons
 - Teach – 4 lessons
- Built in Articulate 360: Rise
- Supported by volunteer experts, current LXDT students, LXDT alumni, faculty colleagues
- Year-long project (currently in pilot phase)



Advice

- Scope
- Support
- Schedule



FTNTT Faculty Fellowship

Barbara Larson, Teaching Professor of Management, DMSB



Motivation and Goals – The plan

1. Get back out into the “real world”

- Corporate residency at Clean Harbors

2. Study truck drivers as an extreme example of remote work

- Qualitative interviews → paper
- Field experiment – intervention study → paper

3. Develop teaching/training materials

- Two teaching cases

The reality

1. Corporate residency worked well

2. Completed qualitative interviews

... but more to be done on this project

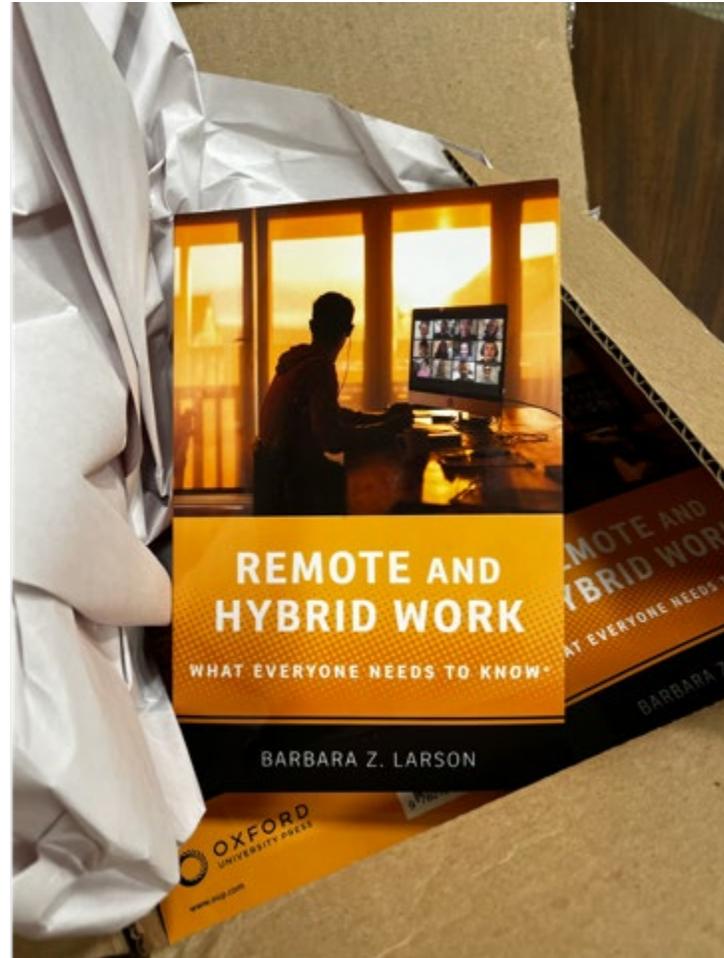
3. Field experiment gave way to reality of the business...

... but, started a related study

4. Teaching cases halted due to management changes...

... but, completed L&D materials for the company

... and wrote much of a book (release date 12/1/23)



A 3D rendering of a puzzle with one red piece standing out among many white pieces. The red piece is in the center, and the white pieces are arranged around it, some of which are missing, creating a sense of a puzzle in progress. The lighting is soft, creating subtle shadows and highlights on the pieces.

One key piece of advice

Be ready to adapt, especially if your project depends on others...

... but don't lose sight of your original goals and motivation

