

Building Adaptive Capacity:

Designing for the Soon (6-12 months)

June 3 (9:00am – 10:15am)
via Zoom



THINK
ABOUT
THINGS
DIFFERENTLY

Photo credit: Ivan Bertolazzi



Tawanna R. Dillahunt,
Assistant Professor
University of Michigan School of Information

Hello, This is Tawanna Dillahunt and I am an assistant professor at the University of Michigan's School of Information and my expertise lies in Human-Computer Interaction. . I'd like to thank Abbie and Chris again for inviting me to be a part of the panel and to James for helping to set things up.

Chris asked me to join the panel for my perspectives on employment and learning. Since arriving at UM, I've primarily investigated ways for digital tools to support economic opportunities within low-income communities, particularly in SE Michigan.

Key takeaways

- Platforms must be *redesigned to truly be inclusive*;
- We must set a goal to *understand infrastructure and learning environments outside the walls of academia* ;
- There are opportunities for true innovation and transformation (*imagine if we could reach everyone*)

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

Since it's early, I'll start with my key takeaways in case you haven't had your coffee or tea yet.

First, Platforms must be *redesigned* to truly be inclusive.

We must set a goal to *understand infrastructure and learning environments outside the walls of academia* (e.g., unstable internet access, social isolation, unexpected guests in the classroom, accessibility challenges). There are opportunities for true innovation and transformation (*imagine if we could reach everyone*)

Adaptive Capacity

Resilience is the capacity to recover in changing environments.

Adaptive Capacity consists of six factors that support (or undermine) resilience: Assets, Flexibility, Organization, Learning, Socio-cognitive, and Agency. (Sinner & Barnes, 2019).



Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

Okay, now that I've gotten that out the way, I want to provide a quick primer on adaptive capacity from Cinner and Barnes.

We can think of adaptive capacity as something in support of resilience (resilience being the capacity to recover in changing environments).

Six factors can either provide, or undermine resilience: Assets, Flexibility, Organization, Learning, Socio-cognitive constructs, and Agency. I frame my research results using these factors so that we can understand how to build adaptive capacity in financially-constrained contexts.

Research Overview

- Investigations of **how technologies** such as MOOCs, sharing economy applications, and the gig economy can **promote economic mobility among low-income individuals (SE Michigan)**
- My **approaches** have been **primarily qualitative:**
 - Community-Based Participatory Research and Design
 - User-Centered Design

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

I've taken on Community-Based Participatory Research and Design approaches, which means I engage with community partners and employ user-centered design to understand how such tools should be redesigned from their perspectives. I believe these methods could (and should) be used in an educational context.

In investigating how technologies such as MOOCs, the sharing economy, and the gig economy could support job seekers, I've found findings which might overlap with our experiencing moving to remote teaching/learning.

Key takeaways from my prior research

As they relate to *adaptive capacity* (i.e., the social factors that provide resilience).

(Collective) Assets

Given systemic economic inequalities, **low-income individuals often fail to benefit from technologies** like MOOCs, the sharing economy (as consumers and producers) and digital employment technologies

- Assets – Financial, technological assets are limited and some services (unstable Internet access)
- Leverage asset- or strengths-based approaches to understand existing capacities (what are the workarounds?)

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

The more assets we have, the easier it is for us to be resilient; however, low-income individuals failed to benefit from digital employment technologies (and others) because of limited financial and technological assets. There were also limitation in services (Internet access), which is an asset for employment (and learning).

The key here is in understanding how people are working around not having such access and supporting these measures. And many are borrowing assets like the Internet or using shared spaces for tech access through non-profits, libraries, etc.

Key takeaways from my prior research

As they relate to *adaptive capacity* (i.e., the social factors that provide resilience).

(Collective) Assets

Given systemic economic inequalities, **low-income individuals often fail to benefit from technologies** like MOOCs, the sharing economy (as consumers and producers) and digital employment technologies

- Assets – Financial, technological assets are limited and some services (unstable Internet access)
- Leverage asset- or strengths-based approaches to understand existing capacities (what are the workarounds?)

Learning

- **Collective learning approaches work well** (accountability, support, exposure—learning from others)
- Socio-technical capacity building/**training is necessary**, and (educational) **technologies should be designed and deployed with these factors in mind**

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

Learning – our capacity to recognize change, connect this to causal factors, and assess how to respond – captures the experiential and experimental processes that enable people to reframe or frame problems

We found in a community-based effort to understand technological support for novice entrepreneurs that collective approaches to learning, or social learning work well (having a small group or cohort of learners to provide support when needed);

Also, we can't just deploy a technology without there being some form of training

Key takeaways from my prior research

As they relate to *adaptive capacity* (i.e., the social factors that provide resilience).

(Social) Organization

- Local nonprofits provide access to social capital (i.e., connections with outside resources like universities)
- Consider reaching out to and collaborating with **community-based organizations** (Ginsberg center, Detroit Urban Research Center)

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

Supporting adaptive capacity through organizations has to do with how we share knowledge, cooperate, and access resources outside of our institutions – related to our social networks and social capital – and sometimes at an organizational level

Local nonprofits provide access to social capital and to connections with outside resources like universities; we should consider reaching out to CBOs and resources like the Ginsberg center so that this knowledge sharing and cooperation continues to flow

Key takeaways from my prior research

As they relate to *adaptive capacity* (i.e., the social factors that provide resilience).

(Social) Organization

- Local nonprofits provide access to social capital (i.e., connections with outside resources like universities)
- Consider reaching out to and collaborating with **community-based organizations** (Ginsberg center, Detroit Urban Research Center)

Socio-cognitive constructs & Collective agency

- Self-efficacy, especially with tech is often lower but can be increased with **collective learning approaches** and support
- Some amount of agency within communities with NPO support;

Flexibility

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

- Socio-cognitive constructs – Constructs such as risk attitudes, personal experiences, perceived social norms, and cognitive biases shape resilience and we must recognize that these constructs vary across individuals, societies, neighborhoods. Self-efficacy with tech was low, there were not many existing social norms around using tech in beneficial ways because of social isolation.
- There was some amount of agency within NPO-supported communities;
- I believe flexibility was inherent in our work because much of it had to do with how people worked around limitations in the existing infrastructure; but in what ways are we flexible?

Questions to consider

If the principal question of interest is, "In a time of COVID-19: How do we design an inclusive, innovative, and resilient university?", then we should also ask:

1. What are our efforts to be inclusive and **how do we take advantage of opportunities** to be adaptative, inclusive, and innovative?
2. What do we mean by "'Evidence-Driven' Innovation and Resilience" (this assumes existing system is ok)? **Can we be resilient and inclusive?**
3. How do **we assess adaptive capacity?**

Building Adaptive Capacity: Tuesday, June 2, 9:00am – 10:15am EST

So those are my takeaways and with them, I want us to consider a few questions: First, If the principal question of interest asks, How do we design an inclusive, innovative, and resilient university? In a time of COVID-19 then we must ask:

1. What are our efforts to be inclusive and how do we take advantage of opportunities to be adaptative, inclusive, and innovative?
2. What do we mean by "'Evidence-Driven' Innovation and Resilience" (this assumes existing system is ok)? Can we be resilient *and* inclusive? Resilience assumes there is a "desired state" (often identified by the elite or those who are advantaged)
3. How do we assess adaptive capacity?