



Convergence Conversations: Progress & Themes

Evolving a Collective Understanding and Common Language
for the RECIPES Network around “Convergence”

Context

- More & more folks across the Network are embracing the term “convergence” but . . . there’s wide divergence in meaning!
 - **Divergence is convergence!**
- Goal is not to attempt to craft a definitive “definition”
- Goal is to:
 - evolve a collective understanding & common language across the network (perhaps some “core tenets”?)
 - establish a foundation for articulating individual & collective goals for convergence & to inform how we assess it across the network

Process

- Convergence Conversations “Design Studio” team:
 - Ana Baluca, Alice Weston, Steffanie Espat, Lee Davis
- Secondary research - NSF’s definition of convergence
- 20 Convergence Conversations
 - 30-minutes, 10 questions, recorded & transcribed
 - Involved diverse institutions & disciplines across the Network
 - Included diverse voices in varied roles (25% students)
- Initial synthesis/insights shared at Airlie
- Additional conversations at (and after) Airlie
- Final synthesis/insights shared in September
- This is the beginning, not the end, of an ongoing collective process!
 - continued conversations, tenets, tools, activities in fall (TBD)

NSF's Definition of Convergence

Before creating our own common language around "convergence" - it was important for us to understand what convergence means to NSF.

Through their website and articles published by associated individuals, we synthesized the following key points about what "convergence" means to NSF:

Convergence:

- Intentionally brings together stakeholders, researchers, and experts from different fields.
- Merges different disciplines, approaches, and technologies, transcending disciplinary boundaries and potentially forming new frameworks.
- Pursues a common challenge or shared goal around a "complex," "vexing," or "compelling" problem in science, engineering, and/or society.
- Considers the components of the system and the system as a whole, in how the work is organized and in the work itself.
- Can happen on multiple levels and with different intentions.

NSF's Definition of Convergence, continued

For convergence to work, teams need to:

- Break down silos and roadblocks between team members, creating a team that functions as “an organic whole” with relationships beyond their expertise.
- Create effective communication, adopt common frameworks, and have set structures and roles to facilitate meaningful interactions.
- Be intentional about holding space for disciplines to merge and cross.
- Recognize convergence takes time and energy to push it forward; it is not easy to achieve.
- Recognize there needs to be discomfort, opposition, and even divergence to create convergence, growth, and ultimately solution, while understanding there are ways to get more comfortable with the necessary discomfort.
- Understand the whole is greater than the sum of its parts, both as a team and in the work itself.
- Understand that complex systems are multi-dimensional.
- Fail fast and lean into the chaos and unknown.
- Consider the now, near, and far instead of getting stuck on quick wins that won't lead to transformational change.

NSF's Definition of Convergence, continued

Outcomes of convergence include:

- Better, well-informed solutions that may not have been previously possible.
- Advances in creativity, invention, and innovation.
- Sustainable relationships between collaborators that continue after the initial problem is addressed.

While NSF has their own definition of convergence (and this idea is integral to the funding our work), we want to evolve a collective understanding and common language around convergence that resonates with us, helps ensure we are all on the same page, and connects to our work and purpose.

Convergence Conversations Overview

The questions used to guide each conversation focused on a few key topics:

- What does convergence mean to you? (Personal descriptions of convergence, core concepts, key words)
- What is not convergence? How does it differ from other forms of collaboration?
- What are analogous terms from various disciplines?
- How does convergence feel in practice? (Examples of projects or experiences)
- How do we know when convergence has been achieved? How much convergence is enough? (Assessment and measurement)
- Is convergence important to addressing wasted food? Why or why not?

Convergence Conversations: Key Themes

Although this work is still in progress, some key themes are beginning to emerge. While there is some overlap between these initial themes and NSF's definition of convergence, there are also some crucial differences.

Key Themes: What is “convergence”?

Network members shared that convergence:

- Intentionally brings together diverse team members from various disciplines to collaborate with one another. Convergence is not done in isolation and often brings together people who have not worked together before and creates new relationships.
- Is focused on a shared problem or goal, usually something that is pressing or particularly relevant to society.
- Enables teams to create new interventions or solutions, modifying and elevating what was originally possible for individual team members or disciplines.
- Is complex, uncomfortable, messy, and difficult to achieve. During convergence, people are extended beyond their usual domains and comfort levels. Thus, in order to achieve it, teams need to feel safe and have an open, trusting environment.

Key Themes: How is convergence different?

Network members had varying thoughts on how convergence was similar or different from other collaborative terminology.

- Some members felt that "convergence" is synonymous with "trans-disciplinary" or other similar terms and can be used interchangeably.
- Others felt that convergence and trans-disciplinary collaboration are different in the same way making a sandwich is different from baking a cake. When you make a sandwich, you can take it apart and easily see each individual ingredient versus when you bake a cake, once it's baked, you can't reverse it and extract the sugar from the flour from the eggs. Like baking, some felt that convergence can only move in one direction and once disciplines come together, they become a greater, unified whole.
- Along those same lines, some members felt that while terms like "trans-disciplinary" are focused on the process, "convergence" is more focused on the problem or outcome.

Key Themes: Measuring Convergence

Several Network members felt that convergence is an abstract concept that you know has happened when you feel it rather than something that can be analyzed through concrete measurements.

Similarly, several felt that convergence can be limitless or achieved in a moment, either through small acts or through endless collaboration.

Area for Further Examination:

While in theory, you could continually add more perspectives into the conversation and continue to merge ideas and methodologies, in action - where is the limit? When is continuing to add people to the conversation no longer useful or effective? How much convergence is enough?

Key Themes: The Term "Convergence"

Network members shared mixed sentiments on the term "convergence" itself. While some felt that it was relatable, others felt it is:

- A lofty term that non-academic audiences would not relate to.
- The "hot, new" thing to describe something that already exists.
- A term that alienates people from social science backgrounds.

Key Themes: Information & Communication

Interview facilitators noticed a communication disconnect between members of the Network. While some feel heard and feel everyone is on the same page, others feel disconnected.

Many members shared they lack a general understanding about the Network and clear expectations for how to function within it, which makes it even more difficult to operate effectively.

Key Themes: Equity & Expertise

Network members shared that within a team trying to achieve convergence, there needs to be equal value placed on every perspective and space for everyone's voices to be heard, however not everyone needs to or should contribute equally at all times. The ways and amounts different perspectives are represented at different times should ebb and flow as the work moves forward.

It is important to recognize that not everyone within the team is or should be an expert at all times, but they should all be open and willing to learn. Like in baking, it is important to know how much of each ingredient to add at the right time as to not overpower the others.

Many Network members shared that stepping away from the role of the expert is difficult for people in academia. Academic structures incentivize and reward faculty for being experts. While students are used to arriving ready to learn, professors and staff enter ready to teach. Several network members shared that when trying to collaborate and converge, they feel friction regarding whose expertise matters more and that hierarchies need to be dismantled in order for convergence to occur.

Key Themes: Academia vs. RECIPES

Along the lines of academia promoting the idea of team members coming in as preeminent experts, several Network members shared they felt academic structures and goals are misaligned with NSF's and the Network's goals. Juggling competing priorities and responsibilities, and lacking time and resources to take on more work make it difficult for many Network members to truly converge with others.

Many shared that the current structure feels limiting, but were unsure what the right balance of openness and structure would be to enable convergence rather than impede it.

Key Themes: The Necessary Perspectives

Many Network members shared that within a team trying to achieve convergence, all the right people need to be at the table, including perspectives representing the whole system or issue being examined. There needs to be enough diversity in perspectives for convergence to happen.

However, many are questioning who all currently exists within the Network, whether there is enough diversity, and whether we have all the voices we need. Many feel the current structure of the Network is limiting and does not allow teams to bring in missing or new perspectives.

Key Themes: Food Waste & Convergence

Because of how complex, multi-dimensional, and broad its impact is, many, if not all of the Network members interviewed agreed that convergence is essential in order to thoroughly understand and comprehensively address the issue of wasted food.

Area for Further Examination:

It is interesting how in these initial conversations, there was general consensus that convergence is important to address wasted food, however there were also so many different ideas and so much disconnect about what convergence is.

Next Steps

As mentioned before, this work is very much still in progress.

While we will continue synthesizing the feedback gathered from the initial 20 convergence conversations, we also want to include more voices from across the Network.

If you are interested in sharing your thoughts during our time here at Airlie, you can visit the Convergence Cafe and either:

- Add sticky note responses to our initial findings and original conversation questions.
- Participate in a 30-minute convergence conversation with a member of the MICA team.

After this week's meeting, we plan to conduct conversations with members of the Network Coordination Team as well.