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Hive Research Lab Interim Brief
Spread and Scale in Hive NYC
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Networked Innovation Research Strand

Prepared by Rafi Santo, with Dixie Ching, Kylie Peppler & Chris Hoadley

Hive Research Lab Interim Briefs are designed to provide the Hive NYC community with ongoing frameworks, findings and recommendations related to the Lab's two research areas: supporting **youth interest-driven trajectories and pathways**, and developing the Hive as a context for **networked innovation**. The briefs are part of a broader effort to connect current research and emerging findings to issues of practical importance to the community in order to improve network activity. Recommendations are preliminary and based either on existing literature or observations of practice within the network.

I. Introduction

How to spread and scale work coming out of Hive NYC has always been a central question for the network. We've [regularly referenced](#) [pdf] how Mark Surman, CEO of the Mozilla Foundation, early on envisioned Hives as "both R&D and retail"; simultaneously incubators for new approaches to learning as well as a means through which those innovations might travel. More recently, Cynthia Coburn has been [writing](#) [pdf] and [speaking](#) with the network about how we might begin to conceptualize these issues of spread and scale in a digital age. While the focus of our Networked Innovation research has generally been on the practices [associated with early stage innovation design](#), Hive Research Lab naturally comes across the strategies and practices that member organizations utilize to spread and scale their work, and in this brief aims to share some of what we've seen in our fieldwork in that area. Through naming the approaches we've seen, our hope is that the network, as a collective, might better think about how it might accomplish more together than any individual organization might accomplish alone.

We begin with a very brief overview of some of Cynthia Coburn's framework on spread and scale, then use the bulk of the brief to describe some of what we've seen in Hive both in terms of what's spreading as well as strategies organizations employ to spread work, and finally close with some questions that organizations might ask themselves as they consider these issues internally.

II. Definitions and Conceptions of Spread & Scale

A key contribution of Coburn's framework is the [definitional work](#) the project does to simultaneously clarify and complicate what we mean when we say "spread" and "scale". She establishes the relationship between the two concepts, using spread to describe the processes by which innovations move across and to more contexts, and scale as the "state" that's achieved after spread has successfully occurred. So, an organization might engage in a viral marketing campaign or run professional development workshops as the activities used to *spread* an innovation. If those achieve a certain level of reach or certain set of outcomes are met (however defined) then the innovation can be considered to have "gone to *scale*". Of course, what counts as success in scaling here will look different for different organizations, stakeholders, and ecosystems (like Hive).

Another important clarification coming from the framework is the different manifestations? of scale it outlines, which may occur either by design or more organically:

- adoption
- replication
- adaptation
- reinvention

Aiming for "replication" is something many might want if they're attempting to spread a finely tuned youth development program, but that approach requires substantive resources and will likely encounter challenges associated with contextual variations that require tweaks to the model, which may mean an "adaptation" approach might be more successful. Digital tools might be conceived of as spreading through an "adoption" approach, but as Coburn notes, simple uptake will likely not

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radically change the core practices of educators in a given context, an issue that's fairly well known in the history of educational technologies. Coburn also notes that in the field of digital media and learning, the dominant conception of scale is tied to "reinvention" of existing innovations, something that speaks both to the community's orientation towards and valuation of "remix" as a cultural practice as well as its commitment to a view of educators that positions them as innovators and designers, rather than simply the users of other actors' designs (*another* issue well worn in edtech history...).

III. What Spreads from Hive NYC?

Coburn's framework also focuses on the importance of understanding the "form" of the thing that's spreading, an issue we've written about extensively [pdf] in relation to Hive. In our work, we've identified a number of different innovation forms that we've seen Hive member organizations developing and spreading. Here's a current list, from the most concrete to the most abstract:

- Digital Tools/Learning Experiences (e.g.: The LAMP's Media Breaker, Parsons' Noisemaker microcontroller)
- Online communities/platforms (e.g.: Iridescent's Curiosity Machine, Urban Word Live)
- Program models/curricula (e.g.: Global Kids NYC Haunts Program, Common Sense Media's Digital Literacy and Citizenship Curriculum)
- Event/Workshop Models (e.g.: Emoti-con, Hive Pop-Ups)
- Pedagogical approaches and best practices (e.g.: topic selection routines for issue-based media projects, student share out and feedback practices)
- Design Principles (e.g.: the Connected Learning design and learning principles, which include things like making learning interest driven, production centered, and peer-powered)
- Pedagogical Values (e.g.: equity, progress, empowerment, fun)

Of course, the lines are not clearly drawn around these categories - a program model might incorporate a number of different digital tools, which might embody specific design principles and be rooted in distinct values around learning. Different pedagogical routines will surely be embedded in program models and events. Perhaps the two most important things to keep in mind here are that 1) "spreadable" innovations can come in various forms, and 2) each form of innovation has its own affordances and constraints when it comes to being spread.

IV. Strategies for Achieving Scale by Hive Member Organizations

As we've researched Hive NYC, we've come to see a number of distinct strategies that organizations take to spreading their work. In each, different forms of innovations are being spread, different target groups are envisioned (sometimes youth directly, sometimes educators broadly, sometimes specific types of "adopter" organizations, etc.), and different levels and types of capacity are needed to pull off the approach. The following typology is by no means exhaustive, but covers many of the approaches we've encountered.

1. ***"Physical" Footprint Expansion*** - this strategy involves increasing the number of physical sites where an organization's youth-facing programs or pedagogies are implemented. This

approach can be achieved through internal growth of an organization in terms of the number of front-line educators it employs, and sites where it implements its work. This strategy often involves intensive partnership and training of "adopter" organizations that implement the model or curricula that was developed by a "base" organization. Such a strategy might also involve the development of online platforms that support multi-site implementation.

2. ***"Virtual" Footprint Expansion*** - in this strategy, we refer specifically to online educational experiences that are aimed directly at young people. Educational video games, online communities, any type of targeted online "content" meant for uptake by youth can be put under this umbrella. This approach is distinct in that it likely means that an organization increasingly develops capacity in areas such as web development, interactive content development, digital design and online community management.

3. ***Open Education Resources (OER) Distribution*** - while it's an older term, "Open Educational Resources" well describes the kinds of things that many organizations aim to spread for usage by other individual educators or organizations. Well structured curricula, "teaching kits", digital design tools or games that can be incorporated into an existing curricula, activity templates or even educational design principles all might be considered under this umbrella.

4. ***Face-to-Face Professional Development and Consulting*** - PD and consulting are well established approaches taken by specialist educational organizations to capitalize on and spread their distinct capacities and resources. Professional development events often focus on more generalizable innovation forms so as to be more widely applicable and attended by educators from a variety of contexts. PD offerings might combine sharing pedagogical approaches and design principles, with exposing trainees to existing knowledge channels relating to a particular area. Consulting, naturally, is often more intensive and tailored to the needs of a client organization.

5. ***Thought Leadership*** - many Hive organizations actively play a role contributing to and even shaping the discourse within various communities and fields as "thought leaders" that are looked to around particular areas of expertise. Such an approach might leverage public speaking in a range of venues such as conferences as well as regular writing and publication whether it be through white papers, on widely read blogs or in various media outlets. A thought leadership approach leverages some core expertise with facility at communication and framing in order to spread ideas and practices.

6. ***Working Open*** - We're hesitant to position working open simply as a strategy for spreading innovation, as in many ways it can be seen as a particular configuration of innovation practices (coming from the open source software movement) that values iterative co-development of innovations with a range of stakeholders in a transparent way. At the same time, this approach, which values cultivating community *during* the design process, could be seen as a strategy that simultaneously develops and spreads innovation.

From an ecosystem perspective, organizations can of course play different roles in relation to these strategies. Some might be looking for other organizations to implement programs developed in-house, others might be looking for online distribution partners to help spread resources they're developing, and some might even help others to build capacity towards spread and scale itself, as in cases where an organization with greater curriculum development capacity assists another

organization to ready an program from broader uptake. One of the advantages of coming at these issues from a "networked" perspective is that it can allow organizations to ask questions about what role they do or want to play in the larger eco-system, as well as how existing actors in the ecosystem can play roles that allow their own organizations to "punch above their weight", so to speak.

V. Five questions Hive organizations can ask about spread and scale

As organizations wrestle with these issues, there are a number of basic questions they can ask and bring into internal strategy conversations regarding spread and scale:

1. What form(s) of innovation I am trying to spread?
2. What conception(s) of scale am I aiming to achieve and how do they impact my strategy? Does my organization envision adoption, replication, adaptation, reinvention or some combination thereof as being applicable to spreading its work?
3. What changes need to be made to the innovation I'm trying to spread, the context I'm trying to spread to or through, and to my own organization in order to make spread viable?
4. How am I going to learn from past attempts at spreading work, both from my own organization as well as others, as I engage in a scaling strategy? How am I going to learn *while* I'm engaging in a current or future strategy so that course corrections can be made along the way?
5. What role(s) can I and do I want to play in the larger Hive ecosystem in terms of spread and scale issues? What are roles I can see other organizations in the ecosystem playing in relation to my own strategy for scale?

As a network, we know that there's much more that can be done together than alone when it comes to achieving impact. Thinking together about how different organizations might leverage their strengths through strategic partnership is ultimately only the first step - just as we need to prototype, test and refine innovations themselves, we also need to take an experimental approach to achieving scale. Each of the strategies above must leverage distinctive best practices that have been developed both within and outside of the education sector. At the same time, such strategies can only be well achieved in Hive if they're approached from the same perspective of collective learning and careful observation that's taken by the network in other areas of its work. Scale brings new challenges, and therefore new things to be learned and shared across the network. Success will likely only be found if Hive continues to be "a network that learns" when it comes to efforts to spread and scale.