The big word in higher education these days is “transdisciplinary.” This is where the research funding is going, and this is where attention is going on our campuses. I believe we are in a great position to take advantage of this direction, if we have the right people in place.

Since this is a conference about rethinking how we do library, I have to share the book that has influenced my thinking the most in the past couple years, Steven Johnson’s *Where Good Ideas Come From*. Johnson’s basic premise is that big, new ideas don’t come out of thin air, but rather happen when existing parts are assembled in innovative ways. He says that a space where interdisciplinary collisions occur is where the real sparks fly. So how do we build libraries, and library organizations, that facilitate these kinds of collisions?
I have done a fair amount of reading and thinking about the culture of academic departments on a university campus, and the librarian’s role, especially the liaison librarian, in connection with those departments. We did a reorganization, and a rebranding of RLI as Liaison Services, a couple years ago.

This talk this morning is a consequence of two events last spring. First, I got permission to repurpose several abolished staff lines and a line from a retiring professional to form three new professional positions in Liaison Services. Second, I attended the keynote at a “STEM & the Humanities” symposium on campus. The content of that keynote pushed me to think about the type of people we wanted in those new positions.

My goal this morning is to bring together three models of social interaction, and apply this combination to how we think about library professionals working with non-librarian cultures: network theory and the Mark Granovetter’s idea of “weak ties,” Etienne Wenger’s “communities of practice,” and the idea from the keynote of T-shaped and H-shaped professionals.
First a little network theory. Most research in this area looks at strong ties – the dense network of people with lots of contact and interaction.
Here we have two such communities, perhaps the Biology department and the Chemistry department. So far, it is unlikely that a new pedagogical idea making the rounds among the Biology faculty is going to inform practice in the Chemistry department.
Strength of Weak Ties

Enter the librarian
This librarian is a liaison to both departments. She hopefully has contacts with many of the members of each department, but chances are that most of those contacts are relatively “weak.” Nevertheless, in this network, she provides a key avenue for innovation to spread, as the only “bridge” between two otherwise separate communities.
Community of Practice

Why are these communities separate?
people who work together tend to form “communities of practice” – shared understanding of the world and how it works, sense of membership/belonging, build a culture
[grossly oversimplified explanation of CoP]
A CoP has a core and a periphery. When someone joins the community,
...the goal is to move the newcomer from the periphery to the core.
There are a variety of models for interaction between CoPs. I will not go into all of them this morning, but will focus on the one that fits much of our interaction with the departments we serve:

Peripheries: librarian attends public lectures offered by an academic department, perhaps exchanges emails about library services, maybe teaches a one-shot instruction session.
Liaison librarian, in various interactions, as a weak tie, plays an important role in the network. Weak link between departments, agents of innovation
But I want more! My greediness (and the opportunity to hire three new liaisons) have pushed me and my leadership team to continue to rethink what the liaison role looks like.

Moving from thinking about what the liaison role should be in the network, to the type of person who would be most effective in that role.
This is where the “T-shaped” and “H-shaped” concept comes into play, as some language that can help define the future liaison role.

As far as I’ve been able to find, this concept dates back to an internal report by the consulting firm McKinsey & Company in 1971. They felt they were falling short as a company, and formed an internal committee to find out why. One of the recommendations of this committee was that the company should develop "T-Shaped" consultants-those who supplemented a broad generalist perspective (something they were successful at) with an in-depth specialty.” (Bartlett, 2006).

This concept has been picked by companies like IBM, and has received some press from Tim Brown of the design firm, IDEO.

Brown describes the vertical component as a principal skill, or a depth of skill that allows one to make tangible contributions to the outcome, but also confident enough of their expertise that they are willing to go beyond it. The horizontal stroke of “design thinkers,” according to Brown, is this capacity and disposition for collaboration across the disciplines.

There is a movement to bring more T-thinking to higher education. “T-Summits” over the past couple years have convened to discuss “how higher education and industry can
collaborate to cultivate the talent development required for the 21st century workforce.” The 2015 summit was just up the road at Michigan State.
Keynote speaker at the symposium: Roger Malina – astrophysicist and artist

H-shaped “very significant relationships between success as a scientist and evidence of adult arts and crafts avocations” (Root-Bernstein et al., 2008, p. 53)

“Hudson (1966, pp. 135 ff ) found that there were a small group of what he called “hybrids” or “well adjusted all-rounders” who had the ability to be both scientists and artist-humanists and who were often the most creative boys in his study. These “hybrids” did not differ in IQ or standard scholastic test scores from the other boys in his study. They differed simply in the unusually balanced nature of their abilities. Maslow (1959) has described such adults as “self-actualizing” and attributes their high degree of creativity to their ability to integrate the fullest range of their talents, a conclusion in line with the discussion of “integrated networks of enterprise” above. Thus, for people with normal or above normal intelligence, polymathy (M. Root-Bernstein, 2008; R. Root- Bernstein, 2008; Root-Bernstein & Root-Bernstein, 1999, 2004)—which is to say, a balance of abilities, as indicated by a range of avocations practiced at an intensive level, or high scores on both the verbal and mathematical portions of SAT tests, or a range of well-developed
“multiple intelligences”—might be a better indicator of potential creativity than IQ per se.” (Root-Bernstein et al., 2008, p. 61)  
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(Alvesson and Sandberg, 2014) – boxed-in vs. box-breaking research - not getting stuck in one's subdiscipline, but intentionally being skeptical, looking from other perspectives
This is hard because, as we develop expertise, our schemas (how we understand the world) become more “stable” (or “rigid” – jas) “cognitive entrenchment” (Dane, 2010) OR “normal science” set in (in The Structure of Scientific Revolutions (Kuhn, 1962))
This is how most Ph.D. programs are set up, geared toward a narrow slice – make a unique contribution to an established area of scholarship

Erik Dane suggest we can avoid “cognitive entrenchment” by “focusing attention on outside-domain tasks” (Dane, 2010) – or we might say by having a second domain, an “H” shape
Perhaps the danger for librarians is, with our emphasis on “service,” we are seen only as the collaborative dash, the weak link
Or perhaps our vertical bar of the T is hard to see, or not seen as relevant (think of “Rex” from Toy Story)
- if we talk in language that does not connect with faculty (information literacy)
Or think in a way that does not appreciate the faculty perspective (scholarly communication)
We may portray ourselves as dinosaurs – formerly the controllers of the information landscape, now cartoonish, and with an inferiority complex to boot
I would argue that to become strong ties, our vertical stroke needs to be bold, clear, and relevant.

That may mean that, as H-shaped, we have a leg firmly in the Community of Practice we want to partner with. In this way we can serve as “brokers” – using our multimembership to translate, coordinate, align our communities, thereby transferring some elements of one practice to another.

This is a *good* strategy, and can work in some instances, but is ultimately unscaleable. To be seen as a credible member of the Community of Practice, even at the periphery, we have to have incredibly specific expertise to talk to those faculty who are “I’s” Ithaka study of historians – must be in same sub-discipline!
T or H helps move from weak to stronger ties, deeper collaboration, partnership rather than merely pathway for innovation

We need to hire and develop liaisons who have, or grow, a leg that is relevant to the faculty they want to work with. For us that has meant
2 digital scholarship liaison librarians – we are looking for expertise with one or more specific, relevant digital scholarship tools (so we can move “upstream” in the research process (Gibson & Coniglio, 2010))
Our undergraduate learning librarian – we sought pedagogical expertise
We did require the library degree – didn’t want to start them at the periphery of library instruction culture

The horizontal stroke also needs to be clearly evident... →
Horizontal stroke

- Ability to communicate and work effectively in an academic setting, with outstanding oral communication, written communication, **interpersonal skills, and the ability to collaborate with a diverse clientele**
- Demonstrated flexibility, creativity, and initiative in one’s work

DSLL must be able to sell their services to the faculty. They need to have empathy, and have a strong desire to collaborate.

ULL must be able to build strong ties, based on trust, with liaison colleagues; and have an ability to understand curricular structures outside his discipline.

This is boiler plate language, but thinking about T and H can help inform our review of candidates. Not being blinded by brilliance alone. Perhaps taking reference checks more seriously, making sure to include some non-directed references, being persistent about contacting the reference that seems to be ducking our calls – there may be a reason!
If we hire the right people, and provide for their professional development, we can build a team of people ideally positioned, not just as connectors in the network, but as partners in the teaching and learning, and research, missions of our institutions.

Even this model doesn’t scale terribly well. I have one business librarian to 150+ faculty. So one more word on becoming partners, especially for those of you on the front lines: Find the T and H-shaped faculty – don’t knock yourself out with the I’s. We only have so much time – spend it with those who are going to use it well. As a library administrator, there is no problem I would like so much as to have faculty demanding additional support. Send them to the provost, get additional positions!

Finally, we should be mindful of our opportunities, in our work with students, of our ability to nurture a new generation of T- and H-shaped thinkers.
For further exploration


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