

SNAPSHOTS FROM AN LSC ROUNDTABLE IN COLLABORATION WITH VENTUREWELL ANNUAL CONFERENCE

March 2018 — Austin, TX

CHARGE: *What first questions should be asked when thinking about embedding spaces for making around the campus, about building an ecosystem of spaces for making?*

SOME RESPONSES:

- “What barriers will we face? Are they curricular barriers? Is the barrier to be faculty resistance to making as a way of learning? Or is it just unfamiliarity with incorporating and integrating making into the curriculum?

Are there social barriers, differences between cultures in makerspaces that you might find in engineering departments versus those you might find in a library? Are there subcultures even in those different departmental spaces?

Are there barriers that emerge because of lack of training in how people are to use these spaces, particularly in my kind of technology-enhanced spaces, how users of these spaces assess information, make new information because of the access to technologies?”

— *Librarian with responsibility for Technology Enhanced Learning*

- “How do people know what they are to do in a makerspace? What questions will they ask? Do they ask if it is for me? Am I allowed to go here? Am I included? Is this a space for everyone? Is it a space only for course-related work? Could it possibly be for my extracurricular assignments in independent inquiry? How can I use this space? Is it a space in which I can interact with people from other disciplines? Thus, the planning committee would be asking itself: What is it to be? What are we trying to accomplish? Who will feel welcomed in the space?”

— *Senior Librarian*

- “Why are we now considering makerspaces so important? What are we trying to reach? How do we achieve student success overall in a makerspace?” It has to do, I think, in aligning student success with institutional success.”

— *Architect*

- “The first question is ‘what is our common definition of an ecosystem for learning’ and then our next question would be ‘what is our common definition of making?’ I am interested in a process of inquiry that continues throughout the planning to learn what we don’t know that we need to know rather than just applying what we think we know.

Each of these definitions are multifaceted. An ecosystem is a community. It is a network. It is an interconnected system; it has cycles and flows. So, what do we want our ecosystem of makerspaces to afford? How will it create impact and influence across campus, for disciplines—individually and collectively? What kind of communities will it create, connect? What will our boundary-crossing agents do?”

—*Architect*



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- “The first question that came to mind was how might we make all spaces in an ecosystem more inclusive, how might we reduce barriers to entry? How we make them more like community sandboxes?’ I am in engineering and am particularly concerned about historically underrepresented groups in my field. I can say that often these spaces are seen as even more exclusive or excluding than other types of spaces.”
— *Faculty*

- “I’ve been thinking a lot about the transition of a culture of learning and working, thoughts motivated by a recent move of our whole engineering program into a single building which is an ecosystem of makerspaces—each supporting a different element of making. I have been trying to understand what is it about a space that supports, that activates the process of making. I am spending much time now watching our students and other visitors to these repurposed spaces as they transition into the new kinds of learning and working that the spaces were designed to support.

My question, at a much higher level, is primarily out of reflecting on the process we went through to have the spaces created. I ask myself, ‘what have we learned in the planning process about what we can or should be doing in these spaces? Who has to be at the table to really articulate our dream, to help us realize the level of success that we would like to have?’”

— *Department Chair, Engineering*

- “My concern is with the intention or idea that has become a fad or technical jargon that is expressed in the concept of ‘makerspace.’ From what I understand, a makerspace is a physical location that fosters or facilitates collaboration. It helps us to do. It helps to bring people together to work on projects, to network, to build. By that definition, some of the biggest corporations of this age that have shaped our world have started in family garages, places where people came together to discuss their ideas and then built something. Is that technically a makerspace? Or should we exclude such spaces because they do not fit into our definition of an ‘academic’ space?

Thus my question arises, which is: ‘what sort of qualities or elements are there that makes such a space as it is, that fosters or creates or builds the skills learners need? Is there something called ‘belongingness?’ Do we need to have a sense of ownership among them?’”

— *Architecture Graduate student*

- “My interest is in space-branding. I am interested in what people see in that first glance when they walk by a space, if they become intrigued and feel invited in. I am interested in what the visual language communicates to someone that could possibly or potentially make the passerby feel included in the spaces, make them feel that they would be welcomed into the space? My question takes a slightly different slant: ‘What can we do with the design to invite in different types of users, diverse users, and people of different skill levels or disciplines?’ I am all about language, all about signs.”
— *Graphic Design Faculty*



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- “I have been thinking about questions like this for some time. On our campus we prefer the term ‘creating’ over ‘making.’ For us making has too much of a physical-artifact emphasis and too great an association with the 3-D printer that stops people from coming in, engaging, playing together.

Some time ago, we did a major campus-wide survey, asking everyone ‘what do the fruits of innovation look like?’ Responses described about 120 different ‘fruits’ of innovation, from a tech product to a new business model, a new documentary, new poetry, new religion, a new drug delivery, and more. Then we asked, ‘what kinds of resources and what kind of spaces does a community need in order to give birth to such innovations?’ About fifty or sixty different types of spaces were identified.

We now are trying to see how we can create a network of open, accessible creative spaces across campus, an ecosystem of many of those different types of spaces for creating. As an engineer, I am always thinking about how the space functions and what impact (what fruits of innovation) the space will have.

My question is: ‘how do we build spaces that are focused on having an impact, that are outwardly-facing cultural spaces alongside spaces that are cultural and accessible and creative?’ The focus on impact is very important to me personally. I am quite obsessed with it. Why? Because I feel that I see a lot of students in makerspaces doing stuff that really does not matter. It is great for students to get started on a trajectory of making but we need to stop doing more 3-D printed donuts and start doing more important, more intelligent work that advances the human condition. That is what I mean by impact.”

— *Dean of Engineering*

- “I have been doing research on makerspaces for three years, so my first thought is that first question should be ‘why are we doing this?’ All of us, I think, are somewhat accepting of the premise that students are getting something out of these spaces. I think that is empirically the case because of what we see. But what is it? Is it confidence? Is it motivation, a desire to learn, to self-actuate? Is it a desire to understand the world beyond them? Is it a gain in leadership skills, in managerial skills?

I am very interested in understanding that and understanding what it is that students are getting from their experience in a makerspace and then using that knowledge as a catalyst in the design process to answer the question ‘why,’ so that we can actually end up with spaces that can be utilized to educate our students more effectively to be professionals, citizens of the world, creative, inquiring thinkers.

If I accept that premise, my second question would be about barriers to access that might limit entry to all students? For me a makerspace is less about the space, less about the equipment, and more about the culture. So my final question is: ‘how do we foster the culture that creates an accessible space for all to come in and actually be able to learn so that I do not have people at the fringes not actually realizing the gains that the space might afford?’”

— *Engineering Faculty*



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- “Well, is this to be the only makerspace on our campus or is it to be one of many?” This is the question we have been asking since our new Center of the Sciences and Innovation opened. This question has opened up conversations with other disciplinary colleagues that we had not had before, including with the communications and the art departments. We asked them, ‘what kind of making are your students doing? Is it a place? Is it in many places?’ We learned that each of these faculties were doing similar, maker-like exercises to achieve their departmental or disciplinary goals. These discussions and responses really opened our eyes; we are now working with colleagues to think about making not just as something for engineering or science students, but also as making as something for students in art, students in communication.

My questions are: ‘what is the barrier in getting buy-in from multiple departments or from facilities staff to shaping an ecosystem of makerspaces? How do you begin breaking down barriers? How do we explore what kind of making happens in other disciplines, if making is happening in a space or in many spaces?’ We are learning that it is about making a culture of making. Students should be making all around. Wherever they are they create and they make. We are thinking about putting spaces for making in dormitories where they can, late at night and early morning, make stuff. Maybe with nobody watching. Yes, there needs to be formal spaces where maybe there is dangerous equipment, but these informal spaces can have small things to work with alone in their off-time.”

— *Geology Faculty and Science Facility Coordinator*

- “I am a field biologist. From working with my students in the field, I have come to care deeply about how students learn. Attention to physical spaces was new to me until I became shepherd of our new Center of Sciences and Innovation. This was an opportunity to think about how to get faculty buy-into such a major project and about how planning spaces requires attention to institutional strengths. The Center was designed to promote interdisciplinary interactions across and beyond STEM and we are succeeding with that. The questions we are now asking are, ‘how to measure and respond to the influence and impact of these new spaces’ and ‘how do we leverage existing pockets of funding and emerging ideas, how do we shape an intentional agenda for making a culture of making across campus?’”

— *Biology Faculty*

