

# ENGAGING THE FORGOTTEN STAKEHOLDERS

## Spaces for Making

### AN ESSAY

During the design phase of a makerspace, various stakeholders (e.g., students, faculty, administration, architects, vendors, etc.) develop a list of student learning outcomes. These are “drivers of success” that the built space and its associated affordances should foster.

We call this Makerspace 1.0 — the first iteration of the space.

Once the makerspace is designed and being used, a variety of assessment tools are used to quantify the success or short-comings of that space in serving those learning outcomes. Among those tools are rubrics, observations, pre- and post-surveys. There are also more robust “research grade” assessment tools that are commonly used in pedagogical studies. These tools and the data they generate are implemented and garnered on relatively short time scales from a semester to an academic year.

Findings from these assessments are reflected upon and then used to iterate/ finesse the makerspace; the intent is to further optimize the space and its affordances to meet the student learning outcomes or other drivers of success that were established at the onset of planning.

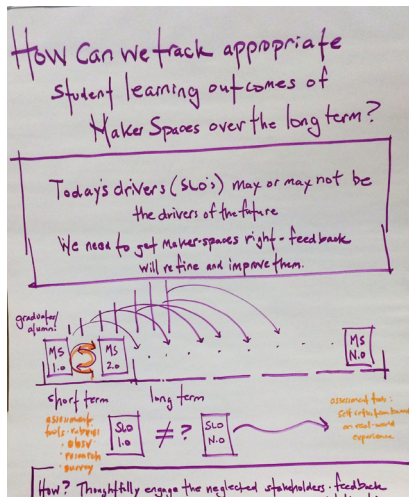
We call this Makerspace 2.0 — the first evaluation and revisions on the space.

While such shorter-term assessments are essential in fueling short-term modifications to a makerspace, they may be missing a valuable input— assessment from students who used these spaces but have recently or long-since graduated—alumni.

### Alumni – The Forgotten Stakeholders in Makerspace Assessment

Have you ever received an email that relayed an “ah-ha” moment from a former student? These come from reflective processes that are catalyzed by the alumni’s immersion into the real-world where the skills and content we taught and they learned are finally realized as critical in their career.

*“It wasn’t until I started working in a real company with real responsibilities that I realized how your class built and honed vital collaboration skills. I thought it was all busy work then, but now I get it!”*



As faculty, we give ourselves pats on the back for a job well done and relish that our former students “finally got it”. But what if it were not us being the critical part of the “ah-ha” equation, but rather the space? Could it have been the makerspace, and all that transpired with it, that was the key to that student’s learning?

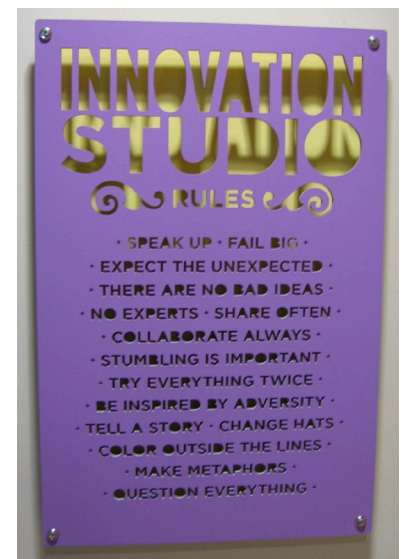
We call alumni the forgotten stakeholder in the makerspace assessment process because all too often, their reflections and narratives on how instrumental the makerspace was to them is not included in any assessment agenda. But why?



Texas A&M University



Texas A&M University



Syracuse University iSchool



One reason is the challenge of surveying alumni who learned in makerspaces when they are scattered throughout the “real-world,” no longer within the geographic boundaries of your campus? How do you begin to relate their “ah-ha” moments to the influence of the spaces in which those experiences occurred, teasing out factors as instructors’ pedagogical expertise?

Daunting these data collections and analyses may be, we argue that these inputs from these forgotten stakeholders may represent the quintessential assessment tool (and resulting data set) for the assessment of makerspaces.

### *Tracking Alumni’s learning outcomes of makerspaces over the long-term*

As opposed to short-term assessment, tracking alumni’s learning outcomes requires time! But just like short-term assessment for mid-course attention, alumni assessment data could feedback into the redesign of makerspaces on a campus—perhaps even rethinking the original learning goals for the original makerspace.

We call this Makerspace 3.0.

### *Future Questions*

1. How do we engage alumni as a makerspace assessment tool?
2. How do we pinpoint makerspace attributes (abiotic, physical, non-living) versus instructor/peer impacts (biotic, human) when trying to assess makerspaces?
3. Are we willing to wait the longer time scales that alumni input and assessment requires?



### WHAT KEEPS ME UP AT NIGHT WHEN THINKING ABOUT LEARNING SPACES

*— Thinking about assessment, there are so many things we think we know and understand intuitively and that perhaps have been tested to a certain level, then built, and we (architects) move on to the next project.*

*— We sort of live project by project. We do not often enough go back and ask questions about how the objectives we had set for the project were met and how the space has evolved over time. What keeps me up at night is about developing robust systems of assessment with and for our clients so we do better next time.*

Roundtable Questions  
& Answers

### Authors:

Jeffrey Ashley, *Jefferson*  
Charles Piper, *BCWH Architects*  
Mehdi Khazaeli, *University of the Pacific*

- An LSC Roundtable on Spaces for Making: VentureWell Post-Conference Event <http://www.pkallsc.org/events/lsc-roundtable-spaces-making-venturewell-post-conference-event>
- <http://www.pkallsc.org/partners/venturewell>

