WHY WE NEED A KNOWLEDGE LOOP

THOMAS FISHER

At a recent physical, I asked a question that my doctor could not answer, so he swiveled around to the computer in the examination room, typed in a few words, and almost instantly brought up all the literature that he needed to respond to my query. The ease with which my doctor accessed that information made me ask myself why our discipline has not organized our knowledge in a similarly effective manner. Why can’t we do key word searches and bring up the current research, the most relevant information and the best ideas and applications in our field for us to assess and build upon? The answer, I think, has to do with our discipline lacking an effective knowledge loop.

Growing up, I remember hearing the doctors in my family talk excitedly about the recent discoveries they had read about in their journals, the result of a knowledge loop that the medical fields had perfected over a number of decades. Physicians, encountering unaccountable conditions in patients, would work with faculty in the medical schools to pursue research grants in search of answers. The results would then get reported in the refereed journals that doctors read religiously in their offices, the result of a knowledge loop.

We can imagine the reasons why we have not done so. Our field does not have the same level of research funding available to fields such as medicine, and our work involves a level of creativity that can be hard to codify and capture in a database. Still, we are doing our discipline a disservice by not doing more to build a knowledge loop of our own. We have all the pieces already in place; we have simply not connected them in an effective way.

Most schools have architectural practitioners teaching as either adjuncts or fulltime faculty, and yet rarely do we share experiences of what has or hasn’t worked and where we need to do more research. Every school has studios that work and where we need to do more. Round Table, comprising the partners of the largest architectural offices in the country, has met with deans in recent years to talk about common concerns, research has consistently climbed to the top of the list, an indication of the importance of developing a better way of identifying, vetting, organizing, and communicating knowledge in our field.
search, externally funded or not, but rarely do we align that work with the challenges that practitioners and communities face.

At the same time, we have distribution channels in place. We can now search back issues of the JAE (http://www3.interscience.wiley.com/journal/117990631/home) and the ACSA’s conference proceedings (https://www.acsa-arch.org/resources/proceedings/indexsearch.aspx), we can find relevant articles in architectural periodicals through guides like the Avery Index (http://www.columbia.edu/cu/lweb/indiv/avery/avery_index.html) and the Architectural Index (http://www.archindex.com/), and we can access peer-reviewed articles in journals related to our field through databases such as InformeDesign (http://www.informedesign.umn.edu/) or the International Architectural Database (http://eng.archinfom.net/index.htm#at).

Yet rarely do these sources include the reports researchers deliver to funding agencies, the innovations faculty and students develop in studios, or the discoveries architects make in the course of practice. Too much of the knowledge we have as a discipline remains relatively inaccessible to others, largely unevaluated by peers, and mostly unpublished either in print or electronic form. And we all suffer as a result. We often cannot command the evidence required to back up our recommendations to clients or support our arguments with colleagues, as we are caught between our identity as a profession, one that shares knowledge, and our historical link to the trades, which keep secrets.

How might we begin building a knowledge loop? First, we need to identify what we know and what we don’t know in all aspects of our field. The AIA and ACSA leadership has discussed starting a series of consensus conferences in which we would bring together practitioners and academics to define the extent of our knowledge in particular areas and identify where research is still needed. While that should occur at a national or even international scale, it could also happen in regions where the knowledge gaps pertain to local cultures, climates, or contexts—with local schools and AIA components partnering to identify questions most pertinent to their place.

We then need to take these multiple research agendas and find ways to investigate them. Ideally, we would seek funding, as medicine has done so successfully, from entities like the National Institutes of Health. But we will need to demonstrate the value of such support and our ability to deliver when agencies respond to our research requests. The National Academy of Environmental Design, supported by the ACSA, as well as a number of other professional and academic organizations, represents a good first step as it maps the research expertise in our fields. Its success, however, will depend on our building a research culture, integrating knowledge development, peer review, and publishing into our practices.

This is easier than we might think. What if, for example, every studio instructor put into each syllabus a requirement that students submit a digital copy of their work along with a short abstract describing the project, key words to search it by, and the important findings? What if the assessment of the students’ work served not just to give a grade, but also to provide a peer review of the best discoveries for submission to a searchable database? And what if the myriad competitions that the ACSA and AIA conduct every year required the same from submitters, enabling juries to evaluate not just the best projects, but also the most important knowledge embedded in them for inclusion in the same searchable format? With some funding and a lot of collaboration and coordination, we could go a long way toward creating the knowledge loop we need as a discipline and profession. Now that almost everything we do exists in digital form, capturing knowledge in a searchable database has become easier than ever. The harder part may come in rethinking our studios, labs, classrooms, and offices as sites not only for creative exploration, but also for the generation, evaluation, organization, and dissemination of knowledge. Medicine made that shift in self-perception and we need to do the same … soon.