

Worked Examples (In a New Sense) As a Way Forward

Scholars and practitioners in the emerging area of DMAL should propose from their own work or the work of others “play exemplars” (proposals about what an exemplar might look like). They would, in turn, work up these examples in just the way they might do for a worked example for students (although the “students” here are the scholars trying to build the emerging area). They would display publically their thinking about how and why they did what they did, and why it might serve as a guide for future work. This overt commentary on the example—the working of it—would initially be from the author of the proposed exemplar, but it would then engender public debate, discussion, and annotation from others, as well as response from the author. This public debate ultimately would become a sort of communal public working of the example.

This would be a new use for and sense of *worked examples*: attempts to imagine exemplars for a new area, and ways to create collaboration and debate around such proposed exemplars, in service of hastening actual exemplars and the growth of the area. Thus, scholars attempting to build the new area of

DMAL would display publically their ways of valuing and thinking about specific problems as suggestions about what might be an exemplar or an aspect of an exemplar for the area. They would do this to engender debate about what exemplars in the area might come to look like and, in turn, what shape the area might take. They would do this, too, to encourage collaboration that would lead to new worked examples—new proposals about what exemplars might look like—based on more shared criteria.

Thus, it would be like a game. Rather than wait—however long it takes—for history to tell us what the exemplars of the new area were (if, indeed, they ever did emerge), we should propose what they might look like (for a good start, see Sasha Barab's illuminating beginning worked examples using his *Quest Atlantis* work with commentary from others, which is available at http://inkido.indiana.edu/barab_we). The first proposals would, of course, be a bit too rooted in our own disciplines and backgrounds, but my hope is that discussion, debate, and collaboration would lead to further proposals that move toward shared theories, languages, and models of interventions. We would not need to wait, either, for full-blown exemplars to show up published in well-respected journals; transformative work in new areas or old ones often shows up at the margins of established areas, sometimes in forms rejected by established authorities, before it redefines what counts as a center.

Offering a worked example of a proposed exemplar might seem to be a big task if we take exemplars to be always “big” things, like whole theories, but they need not be big. An exemplar—and, too, the proposed play exemplars done as worked examples for others to work through themselves—could be

small. It could be one application or aspect of a method or a theory, a bit of analysis, a way of combing a couple of ideas from different disciplines, one “move” in a proposed research project or learning intervention, and other things as well. The key point would be to propose and explicitly comment on some way of working, large or small, that might become a shared element—maybe after much debate and transformation—of the new area.

The point would be to exemplify publically how experts might talk about this element, if and when any experts were to arrive in this new area. The goal would not be to “win” (to have your work become an exemplar—history would take care of that for better or worse), but, in fact, to “lose,” to see your proposed exemplar so worked over by the community that it would become fodder for collaboration that, in the end, would have no single author and would become not “you” but a new area of endeavor.

I propose, then, that we pretend to be experts in an area that as of yet has none. I propose that we treat each other as students working over problems as if they were well established even if they are not, so we actually know concretely what each other think and value, as a starting point, not as a finished point. Then we could imagine together new ways to think and work and, if successful, actually produce exemplars for a new area. These exemplars, if the area ever emerged, would, in turn, be used as worked examples for new students in the area. Maybe this game would work to accelerate the growth of a new area, but it would be a fine enough outcome if it merely served to create collaboration and the emergence of common ground

through interaction and debate, and not just through the fiat of funders and established disciplinary journals.

The term *worked example* is heavily associated with science and math, but it need not be. I like the term because it stresses examples (cases, specifics) that are “worked,” explicated in an overt way to make thinking public. Far from being germane only to science and math, this is similar to what artists and designers encounter in design workshops where they explicate, in an overt way, some of the creative processes that went into a piece of their work. The notion of a worked example, as I am extending the term here, is not unlike what goes on, as well, in some game-design “post mortems,” as in the *Game Developer* or even what appears in some game designer’s diaries and notebooks.

In the end, worked examples could become not just a way to move DMAL forward but also a new form of scholarship, one particularly fit for new areas of interdisciplinary, collaborative, thematically focused work (Barab, Dodge, and Gee, forthcoming). We could also imagine a Web site where a whole community contributes worked examples, comments on them, transforms and extends them, and links to other worked examples to form larger families of worked examples that would eventually start to both create and map the emerging area as it took shape.