

It's Time for Just-in-time Learning



It is 20 years since Adena Schutzberg last learnt any GIS software in depth. She has since had a very successful career and argues that we, and course providers, need to tailor our learning to our immediate requirements.

As I write this column in January, Esri is getting ready to ship the first release of ArcGIS Pro. The company has been talking about and showing the new product for a few years, so I'm confident readers have heard of it, if not seen or touched it. How will users learn the new software?

Those new to ArcGIS of any flavour have far more options for learning than I did when I took a face-to-face ARC/INFO course in 1992. In 2015, Esri hosts its own virtual campus, publishes tutorials, offers live online training and

teaches face-to-face. There have been two iterations of the company's Massive Open Online Course (MOOC), *Going Places with Spatial Analysis*, with more planned for this year. Writers and educators outside the company also offer online and face-to-face courses, books, videos, tutorials, and MOOC's.

Simplifying the Learning Process

The fact that all of these different products even exist suggests significant demand to learn the software. The products are appealing because they simplify the learning process. Students who choose one of these options push the burden of teaching (both selecting which material to teach and how) to the authors. Ideally, students learn what they need to learn.

Now and again, they do not. In those situations, the first question to ask is: Did the learner know exactly what he or she hoped to learn? Was it narrowed down to "learn how to use kriging in ArcGIS to determine the most likely location for a specific mineral"? Or was it vague like "I want to learn Python"? As geospatial technology and training materials come to market more rapidly, I think those of us in the field need to do far more of the task focused learning and less of the broader learning.

There are simply too many tools to bother learning anyone in too much depth unless or until it is part of your regular workflow. If you work with a software product regularly you will master it and find its quirks. I did that with AutoCAD 25 years ago and ArcCAD 20 years ago. I can't say I've learned a software product of any kind in that kind of depth since. But I've been successful nonetheless.

There are times, to be sure, where we need the broad overview type of learning. These are opportunities to learn; what the new product or technique is, how it works and if it helps address a need or problem. A product or technique's marketing team or outreach community should offer that information.

Taskbased Learning

Once a user determines that an offering can potentially solve a problem, it's time for more focused, taskbased learning. This type of learning is what's going on in many US and other schools via projectbased learning. The idea, in part, is that students learn skills specifically to solve a problem. Middle schoolers might need to learn just enough ArcGIS Online to produce a map of where crossing guards are posted as they explore safety around their school. They might use that map to help convince town administrators to add more guards. Will the students become experts in GIS or the specific software? No. Will they get a feel for it? Yes. Will they solve a problem with it? Yes. Will they learn how to learn technology? Yes.

We professionals need to do just that sort of "just in time" learning. Unlike school students, we won't have an instructor guiding us in finding a tool and how to learn it. We will need to do it ourselves. This sort of learning is good for one's career. In that document where you track your work accomplishments (my Dad called it a "hornblower") are the details you needed to learn, how you learned it and how you applied the tool on a project. Bosses want to hire, and keep, those who keep learning.

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