

Admission & Student Engagement

Prospective Graduate Students

Deep Smarts

April 2, 2016

Despite being an engineer or maybe because of it, I'm skeptical of all the hype surrounding adaptive learning algorithms and big data. Today, computers can automate many human processes so is there still space to value human ability?

Based on this podcast, "[Learning What Wiser Workers Know](#)", which aligned with my own views, the answer is YES.

The podcast defines "Deep Smarts" as experiential knowledge that experts at a company or senior mentors have that is hard to replicate or write down. This knowledge enables them to make good judgment calls and decisions. I think the idea of institutional memory, or experiential knowledge is a highly underrated concept in the business, management, and even **political** world.

If you have ever been actively involved in a student organization in college, you know how hard knowledge transfer and transitions from year to year can be. In fact, I bet the [Society of Women Engineers \(SWE\) at USC](#) has a more advanced knowledge transfer process than many companies! We actually created binders with information on how to plan events and held a transition retreat where the old VP explained the deep smarts they learned to the new VP. For example, I explained why a funding form should be sent in 6 weeks early even though the official procedure says 4 weeks is enough.

Despite that, I emailed the old VP during my first month on the job to get advice and a year later, I received a similar email from the new VP. Imagine how many emails I would have sent/received without that transition retreat!

Decision-making, judgment and knowledge gained from actual experience can't be replaced or programmed. Most decision software or even business intelligence analytics only provide insights into data so a decision-maker, whether it's a physician or a marketing VP, can make better decisions.

When I was working, the most valuable knowledge I learned on-the-job was unwritten; it was not technical information, but learning how to handle people, when to do a task, or how to decide if a task was even worth doing. I learned through observing and shadowing my mentors and experts.

An interesting point the podcast made is that sometimes experts are not even aware of the knowledge they have that makes them successful. As a newbie, I sometimes followed my mentor's tips blindly and later learned the importance of it when I saw the positive results.

Whenever an expert left the company, things always slowed down because they took institutional memory, or these unwritten nuggets of information, with them. It took time for novice employees, whether new to the company or just new to the

role, to ramp.

This concept can be applied by anyone, even lowly graduate students. In any team, my question would be how do I make my successor equally adept in my role, including making good decisions, and how can I glean the unwritten knowledge from those who came before me?

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