

CAUGHT IN THE ACT:

Integrative Studies Where I Least Expected It

by

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We are pleased that we've been given permission to offer this print version of an address delivered by Jeff Williams, a keynote speaker at the 34th annual conference of the Association for Interdisciplinary Studies, hosted by Oakland University in Rochester, Michigan, from October 11-14 in the fall of 2012. The theme of the conference was "Public Policy and the Promise of Interdisciplinary Dialogue." Jeff Williams is chief executive officer of Public Sector Consultants. He oversees the company's finances (annual sales of \$6 million), personnel (30 employees and numerous affiliated consultants), client relations, and research projects. Mr. Williams also serves as senior adviser for the firm's clients in the areas of K-12 general education and special education policy, higher education policy, public finance, large-scale program implementation, and evaluation and survey research. He has been with the firm since 1991. Mr. Williams completed an undergraduate degree with honors in International Relations from Michigan State University. He holds a master's degree in Technology and Public Affairs from the University of Minnesota and is certified by the Project Management Institute as a Project Management Professional (PMP). He may be contacted at: jwilliams@pscinc.com

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Abstract: Weaving together stories from history, as well as his own experience, Mr. Williams speaks about how critical public works and policy questions cannot be solved by people trained in one discipline in isolation—arguing that the hyper-specialization of the 20th century swung

the pendulum too far. He closes with a reminder of how integrative studies is one of the best ways to prepare individuals for life and work in the global economy.

Keywords: interdisciplinary/integrative studies, specialization, interconnectedness, creativity

As someone whose professional life lies outside of the academy, I think Scott Crabill, one of the organizers of this conference for interdisciplinarians, invited me here as living proof of a life outside academia for people with eclectic backgrounds. My experience in research and consulting spans the fields of information and communications technology, public policy, education policy, energy efficiency, strategic planning, and public finance.

I want to begin today with a story of how interdisciplinary studies was revealed *to me* 20 years ago this past spring. This story, incidentally, is also the story of the first time I thought I would get fired from a job in public policy—so it has stayed with me. I'd like to use the story as a backdrop allowing me to contrast narrow-mindedness in business and education—and public policy—with the broad-minded way in which the world *actually* gets big things done.

Part 1: The Backdrop

At the end of my first year of college, I was able to change jobs from working part time on the computer network of the Michigan State Senate to working part time at a privately held, nonpartisan research and consulting firm. Roughly a year into that job, I was called to accompany one of the firm's senior officers to a meeting with the president of a powerful statewide trade association—a frequent inhabitant of what was soon to fade into folklore: the literally smoke-filled rooms where policy was conducted until the Michigan Indoor Clean Air Act took permanent hold.

I was there because word had gotten out to the firm's clients that I understood computers *and* public policy: I understood intuitively that if you couldn't sort a list of 40,000 association members by legislative district, you couldn't launch an effective advocacy campaign. This sounds quite pedestrian today, but this story takes place in 1992—two years prior to the World Wide Web's public release, when an interface named “Gopher” roamed across the earliest “always-on” networks.

As we arrived, my vice president paused at the entrance to the conference room to get some coffee, and I was left alone (and shaking) in front of the president of the trade association, a lion of Michigan policy. And, in the fog of my memory, the grilling went something like this:

“So, you’re studying computer science at MSU?”

“Uh, no.”

“Oh, well, if you’re with the firm, then it must be political science. You have any classes with Dr. Whatsthename, my golfing buddy?”

“Uh . . . uh . . . no. I’m studying international relations.”

There was a very long pause, and I could see the lion’s face morph in slow motion from banter, to skepticism, to concern, as if I might be wasting his time.

“Let me get this straight. You’re a computer geek, working for a state-level public policy firm, studying international relations. *How in creation do those things fit together?*”

And, right on cue, my VP walks into the room with her coffee, takes one look at the lion, sits down, and stares right at me. I figured that I was seeing the end of my time at the firm right then—I had annoyed the gentleman within 30 seconds of meeting him—so my mouth decided to swing for the fences before my brain fully engaged:

“Because in the coming years, telephones and computers will make information flow faster. National borders will be less meaningful, but at the same time identity groups within a nation will feel stronger because they can talk to others who think like they do.”

“Whew,” my brain said. “Not bad, mouth!”

With the benefit of hindsight, I now know this was my introduction to the field of interdisciplinary studies. . . and to the healthy creativity that comes from the threat of imminent doom.

Part 2: Specialization: Creating Modern Problems

Today, the lion’s question sounds quaint. This room is filled with professionals who believe it is inadvisable to talk about any state or local policy—or the work of a business or a question of research—without being aware of the local, national, and international forces at work in and around each issue. But his question was rooted in the very real experience of the mid-to-late 20th century: hyper-specialization. Thus we have arrived at my central point: *Critical policy questions cannot be answered by people trained in one discipline in isolation, just as technical advancements leading to public works breakthroughs—that is, scientific creations with deep, lasting effects in public life—have really never been made by people trained in one discipline only.*

Let’s roll the discussion back a few decades and talk about one of the greatest scientific “public works” achievements in the 20th century. We

remember President Kennedy's words from May of 1961: "First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth."

When it came, this accomplishment was not solely the domain of the proverbial rocket scientist. NASA certainly needed rocket scientists, but they also needed materials engineers, fabricators, physicists, astronomers, communications specialists—still too narrow?—flight surgeons, naval officers, public relations officers, lobbyists, politicians—still too narrow?—Walter Cronkite and several swashbuckling astronauts—who themselves were both multidisciplinary and interdisciplinary—to be successful.

Let's roll the clock back farther, to one of the greatest "public works" contributions of the 19th century: the transcontinental railroad. Here again legions of engineers—this time, the train kind—construction workers, surveyors, logistics experts, iron workers, and frustrated stage coach builders—were needed to make both the rails and the iron giants that rode upon them. Use of the railroad opened a young nation to a completely new set of challenges, including westward migration of settlers at the expense of existing, indigenous populations.

Remember, too, that the massive expansion of the railroad was a primary factor for the simultaneous expansion of a separate industry: the telegraph. The telegraph had different investors, different operators, and a far different goal—transporting messages instead of physical goods or people—but actively used the railroad to extend its reach.

What do the Apollo moon shot, the transcontinental railroad, and the telegraph have to do with public policy and interdisciplinary studies, the themes of this conference? A major component—like it or not—of each of these innovations in American history was nation building, one of the primary roles of politics and policy. Whether a president's goal was to unite a nation behind a big idea (like the moon shot) or to literally unite a nation through the flows of people and goods (with the railroad) or information (with the telegraph), his grandest ideas required input from people expert in every aspect of then modern life . . . and indeed would end up touching every aspect of American society.

That these massive projects required talent from people trained in multiple disciplines is not a new idea. In fact, a multidisciplinary and interdisciplinary outlook goes even farther back to how the courtiers of Renaissance leaders in 14th to 17th century Europe were educated or to the training of emperors in China or Japan many hundreds of years before. These were the

original “well-rounded” ladies and gentlemen. While gender roles certainly offered a prince and princess vastly different topics to learn, the expectation for privileged men and women both was that they master a wide range of subject areas, arts, and physical pursuits in an educational tradition that has roots going back to the Greek and Roman empires. *These nobles were the original foxes, in the great debate of fox versus hedgehog.*

For those not familiar with foxes and hedgehogs, a quick sidebar: The philosopher Isaiah Berlin used fragments of an old Greek poem to divide writers and thinkers into two categories,

- hedgehogs, who view the world through the lens of a single defining idea—such as Plato, Nietzsche, or Proust, and
- foxes, who draw on a wide variety of experiences and for whom the world cannot be boiled down to a single idea—such as Aristotle, Shakespeare, and Goethe.

Somewhere in the second half of the 20th century, we collectively lost the way of the fox and became “hyper hedgehogs.” Hedgehogs even gained Hollywood screen time for the generation coming of age in post World War II boomer days. “One word. Plastics.”

The unifying theme of this period could be called the supremacy of the hedgehog, and it has survived into the 21st century. Author Jim Collins’ advice in his seminal 2001 management book, *Good to Great*, was very clear in the case of fox versus hedgehog. To paraphrase: hedgehog, hedgehog, hedgehog. Find the one thing you can be best in the world at, and do that.

Colleges and universities are at fault for hedgehog ascension, but so, too, are employers. Together, beginning in the post World War II boom, higher education and employers worked hand-in-hand to send the message to generations of students: “If you want to get a job as an [x], then you must get a degree in [y] from one of these institutions, [z].” No longer did you begin your specialization with apprenticeships and after a broad secondary or postsecondary education; rather, specialization became the focus of higher education and the gateway to a lifelong career. Preparation for this specialization began in secondary schools—“When you go to college, what will your major be?” Note the singular, not plural. The use of the singular is not an accident, and it reflects the primacy of hedgehog thinking.

And yet we know better. Or should. The building of the pyramids was not just an “engineering project,” nor, for that matter, is the construction of the CERN supercollider that may have finally located the Higgs Boson. Effects

of both of these decidedly unspecialized public works reverberate through the halls of science, politics, economics, and progress.

Two instances show how far some academics have strayed from seeing the interconnectedness of disciplines that non-academics do see and benefit from. In my own lifetime, one of the most highly regarded training programs in business was not located inside the academy at all. Rather, the corporate training program at General Electric, or “GE University” as it became popularly known, rotated rising GE employees and executives among both content areas and business units they knew little to nothing about to encourage them to think creatively and look for solutions in odd locations, a program that was heralded at the time as revolutionary.

And no discussion of creativity and the power of an interdisciplinary approach is complete without a nod to the iPod, the iPhone, and the iPad. These devices were created in the brain of the definition of a modern Renaissance man, Steve Jobs, and handed off to an interdisciplinary team headed by a multi-talented designer named Jonathan Ive. Just like the GE University, which was about ideas, the development process for physical goods at Apple was heralded as an “amazing breakthrough” in a way to design a product.

Pause for just a moment and think about that language—“design,” meaning it’s an engineering task, and “a product,” meaning it’s a singular thing to be marketed to the masses. That completely misses the point that the iPod/iPhone/iPad revolution isn’t about the product—it’s about the platform, and the interdisciplinary ecosystem of programmers, marketers, educators, consumers, musicians, and researchers that surround it.

Part 3: So Let’s Talk About Public Policy

So let’s bring the conversation home with a focus on how public policy can benefit from a more subdued, rather than hyper, hedgehog as we rediscover our inner fox—and the critical role that higher education can play in that search. Solutions to the biggest problems facing America today require the same interdisciplinary approach as creating the iPhone or building the pyramids. One discipline alone does not and—in an ever-complicating world—cannot have the answer to complex problems. Silos at institutions of higher education, that is, departments offering expertise in isolated disciplines, will continue to fall, for failing to prepare students for the real world, just as those trained only in distinct disciplines in both for-profit and nonprofit companies have done.

- Do you think the Eurozone problem will be solved only by economists? It will require an interdisciplinary team with knowledge of economics, politics, finance, history, culture, media, and communications.
- Do you think solving America's problems with the budget deficit, Medicare/Medicaid budgets, and entitlement spending will be solved by anything less than such a broad team?
- What about solving the problem of global warming? The sciences of thermodynamics and meteorology are complicated even before adding the psychology, history, behavioral economics, and politics of the potential solutions to the mix.

Now, with my earlier reference to silos I didn't mean to recommend the end of academic departments or specialties. Division of labor and appropriate specialization are key lessons from the industrial revolution as perfected in the 20th century. What I do mean is that academic units—and businesses—will be judged not only by their reputation in their own areas of expertise, but also on how fruitfully those working in those areas interact with those trained in other disciplines.

I now lead, with my business partner, a for-profit consulting firm. We do not lobby legislators on behalf of our clients; instead, we conduct applied research on projects focusing on environmental, health care, and education policy in the Midwest. The firm has celebrated its 31st anniversary, and I have been in residence for 21 years. The firm's staff of 30 have 48 academic degrees among them, in a variety of different disciplines. The most interesting fact, for today's conversation? Of the 30 people, the minority (11) are working directly in the field of their higher education degree. The majority (19) are very similar to me: proud academic mutts—foxes, if you will—who wouldn't trade our eclectic training for the world. The unifying theme for the firm's staff should resonate as the unifying theme of this conference: *It's not just about studying different topics; it's about bringing different topics to bear on a single issue.* And we're killer on trivia night at our local watering holes.

This interconnectedness of disciplines has key applications to modern higher education—and especially public higher education. We have moved from a world of predominately state support to a world of (roughly equal) state support, tuition, and grants/private donations/foundation-sponsored research. In this world, colleges and departments cannot trumpet from the rooftops expertise in one area, because no single area has enough depth to

support an entire institution. In an era when higher education will serve even more masters—boards of control, presidents, deans, faculty, students, alumni, granting agencies, state government, federal government, and, for many, foreign governments and/or parents of foreign students—institutions *must* be comfortable with interdisciplinary studies, frameworks, and conversations . . . because every single one of their masters is.

As I noted earlier, my professional world, consulting, isn't immune to this larger trend either. I believe that an understanding of Cold War politics has been critical to my success as a K–12/higher education professional. How do my six years of postsecondary training in the supremacy of (and threats to) the nation-state and the role of cultures, history, borders, and institutions in an interconnected world play out in my daily life now? Simple. Have you ever tried to merge two school districts, and decide which mascot survives?

Part 4: What Does Integrative Studies Mean to Students, Faculty, and Institutions?

I close today as if I were talking to parents of integrative studies students, or perhaps members of a university board, that were asking the basic question, “Yes, but who would ever hire the likes of *you*?” I would tell them that an interdisciplinary education is the best preparation possible for personal and professional success in the 21st century.

Why?

No one—not a CEO, not an executive director, not a senator, not a president—wakes up in the morning and says, “Gee, if I only had an integrative studies student at hand, we could really solve this problem!” What they do say is, “I need someone who can think big about this very precise issue,” but they don't know who that person is. Too many department chairs and professors make a similar mistake, by training future graduates too deeply in narrow areas at the expense of helping the students develop tools to meaningfully contribute in the large, interconnected systems of modern business, governmental, and nonprofit entities.

Sir Kenneth Robinson, a great thinker on the future of education, talks about it like this. “It's not that there aren't enough [college] graduates to go around; there are more and more. But too many don't have what business urgently needs: they can't communicate well, they can't work in teams, and they can't think creatively” (p. 4). “Creativity draws from networks of knowledge and ideas. The dynamics of culture are illustrated by the interac-

tion of science, technology, and the arts, and their impact on cultural values” (p. 167).¹

That’s the beauty of integrative studies, interdisciplinary education, a broad reach—whatever you call it. It is up to each individual to discover and define what creativity he or she can provide within an organization, as creativity transcends specialization.

I had the benefit for both my undergraduate and graduate degrees of attending institutions that required an interdisciplinary approach to coursework to even earn a degree, so much so that my graduate coursework was roughly one-third in the public policy school, one-third in the school of economics, and one-third in the school of physics—as applied to issues of public affairs. I tip my hat to my two alma maters for offering me choices that took me outside of silos, beyond specialization—and I tip my hat to all of you for offering your students and faculty the same opportunity for interdisciplinary work.

¹ Robinson, K. (2001). *Out of Our Minds: Learning to be Creative*. Oxford, UK: Capstone.