Thank you so much for the kind introduction, Cousin Keri [Moore]! I want to thank the conference committee, and especially Kylie Twyford and Michael Whelan, for inviting me to share some thoughts with you today – not least because I’m thrilled to hear your thoughts during this trip. Let me start with an aside (even though I haven’t said anything yet to be aside from!): I normally don’t write out speeches and then read them verbatim. This time, however, I did, because my time is limited and I didn’t want to get sidetracked and run over; I really want to hear your reactions. But there are two reasons why I sort of regret having a prepared text: first, I’ve had the pleasure of having had conversations and hearing presentations that give me a somewhat clearer of what’s going on with WIL here in Australia; some of my ideas are changing. Some of what I say may sound peculiar to you because it’s from an American perspective. Second, because I’m pretty badly jetlagged, I keep waking up in the middle of the night and tweaking the talk in my mind. Nevertheless, I’m going to stick with the plan so I don’t wander. Maybe we can address the tweaks in the Q&A. Anyway . . .

I’ve been working in the realm of what we in the States call experiential education for about 35 years now, and have had long had the distinct impression that you Australians are thinking rigorously and productively about learning in the workplace as a feature of higher education – in some respects more than North Americans. So, while I have the distinct privilege of standing up here and talking to you for a while, I hope to spend most of this visit listening to you talk about your ideas and your practices in Work-Integrated Learning – and yesterday was a good start.

I come at this opportunity from the position of being both a practitioner and a researcher in the field of experiential education. In the early 1970s, I taught in an alternative high school that encouraged students to do internships and service-learning as part of their studies. After graduate school, I was on the faculty of the Department of Family and Community Education at Teachers College, Columbia University, where we worked with educators in settings like museums, hospitals, and settlement houses. I joined my present school at NYU in 1982 as the director of cooperative education, and placed liberal arts students in sites ranging from business to government, from the arts to the media to social services. Over the years I have supervised scores
of student-interns, taught seminars on learning from experience, and helped to create my school’s Community Learning Initiative. So I care about practice.

On the research side, in 1978 I started doing a series of ethnographic studies of high-school and college-level students who were supposed to be learning by participating in one or another kind of work setting. There had been some studies of interns from a statistical, input-output perspective: asking what kinds of students do internships? how does the experience affect their likelihood of persisting in college, or of getting a high-paying job when they finish? But at that point, very little information was available about the black box in between the input and the output, about the texture and content and dynamics of the intern’s actual workplace experience. So in two studies, my colleagues and I did participant-observation in a total of about 70 work sites where interns were placed. We spent hundreds of hours watching the students interact with co-workers, with customers and clients, with information and tools; we interviewed them about what they were doing and how they were thinking about it; we collected artifacts like memos and work products; and we interviewed the students’ school-based advisors and instructors to hear what and how they thought the students were learning. More recently, I did a study called Teaching from Experience, in which we investigated the practices of college faculty in programs that gave credit for internships. We wanted to know how their school-based experiences helped the students make greater sense of their field-based work and vice versa. Over the course of these studies, I think I developed a richly grounded understanding of the ways in which work-based experience can – and cannot – be said to produce meaningful learning by students.

[SLIDE] That “cannot” is important. I have come to the conclusion – which I will try to explain to you today – that experience can be a profound source of knowledge and learning when it is done right. But having watched and interviewed scores of students and observed dozens of classrooms where experience was supposed to be examined, I can say that – in the States, at least – all too often it is not done right. For a variety of reasons, internship and cooperative education programs and even, to a lesser extent, service-learning programs often rely on the raw experience itself without processing it, without getting students to reflect on their experiences in rigorous ways that could reciprocally inform and be informed by their academic learning. Some programs do that work with imagination and integrity, and their students blossom. But too many take a laissez-faire attitude: They throw students out into the world at the beginning of the semester, reel them back in at the end and ask them to say something – anything! – about what they did, how they liked it, and what they might have learned.

My basic argument, which I want to flesh out a bit today, is that those practices neglect the responsibilities I think we have as educators. [SLIDE] They survive in many schools because of what I call the perfect storm of mediocrity: students want these internships because they get a foot in the door of a possible career, and make contacts that can lead to jobs; employers get cheap labor; and the schools get to flaunt themselves as progressive and innovative – but nothing in that formula ensures that students will learn anything. Years ago, my school used to place students at MTV, and they would end up doing mindless things like filing papers or tabulating playlists. But the interns loved it; one came back to school and said, “I saw Sting in the hall – that’s so cool!” Cool, maybe, but not educational, not something I’m comfortable awarding credit.
So I am here today to argue that as educators we have a number of core responsibilities to students, to the academy, to employers, and to society when we involve students in work-based learning. The key underlying premise of that argument is that we have to add value to the work experience, so students learn more (and differently) than they would if they simply got a part-time job or an apprenticeship. Let me say that again: It’s not enough to claim that the naturally-occurring learning that students do in a work site is sufficient. Surely they do learn something, as a lot of researchers have shown. But as educators, we can’t just leave it alone and stamp it with credit; instead, we have to enrich that learning, elaborate it, and connect it with the ideas and skills that students develop in school. The question is what and how students learn more by virtue of their engagement with us; the question is whether the learning they do merits credit in an institution of higher education. Put more crassly, the question is how we can justify charging tuition (which in NYU’s case is over $46,000 a year, not counting room and board!) and awarding credit for students’ going out into the world and working.

From what I can tell, admittedly from a great distance, Australian universities have been much more rigorous and thoughtful about this value-added issue than most schools in the United States. Your concept of Work-Integrated Learning sits precisely at the intersection between the two domains, in a way that our term “work-based learning” does not, and operates on the premise that the two forms of knowledge can and should in fact be integrated. And apparently a good deal of research has been done here on the conditions under which that integration happens. But having read a few of the Australian writings on this problem, I want to address some of the challenges that educators face as they try to effect that goal, as well as some of the possibilities.

[SLIDE] I respect that work a great deal – I wish as much had been done in the States – but I want to push on it some today, to problematize the notion of integration and its pedagogical and programmatic implications.

Here’s an example of the issue: Imagine a student taking a course in organizational sociology, where she’s reading Max Weber’s classic work on bureaucracy; and at the same time, she’s doing an internship in the New York City Department of Education, one of the world’s great bureaucracies. Then ask these questions: What’s the relationship between those two experiences in terms of knowledge and learning? How does she make sense of the ways those two forms of knowing inform and challenge each other? And what is the role of the educator in helping her develop that sense-making?

Now, there is a common assumption underlying Work-Integrated Learning, as far as I can tell: that while the forms of knowledge in school and the workplace are different – Stephen Billett talks about the “canonical knowledge of the profession” (what every practitioner needs to know) and the “situated knowledge” of the specific workplace – while they are different, the relationship between them is basically straightforward and unproblematic: They map onto one another. So, for example, theoretical knowledge acquired in school can be (quote) applied in the workplace, and practice-based knowledge simply surrounds that knowledge. Much of the writing on the experiential side of that process focuses on knowing “what it’s like” to be a professional – an accountant, a physical therapist, whatever – on handling the psychosocial elements of the experience. This image suggests that the experience-based knowledge complements the academic knowledge, that the school-derived learning functions clearly in the workplace, but is fleshed out, put in context, by the experience-based learning. That assumption is more simplistic in the
US, and takes the form of what I call the _rhetoric of application_: Not only can technical and professional skills be taught in school and then “applied” in the workplace, but in liberal arts schools, at least, abstract concepts like Weber on bureaucracy or Tönnies on community can be _experienced_ in the workplace or the world.

Of course, my Department of Education example may not resonate with those of you in pre-professional programs, where “academic knowledge” isn’t as much about _theories_ like Weber on bureaucracy or Clifford Geertz on culture or, god forbid, Foucault on discursive formations, but rather is directly about _practice_ – something like the 5 P’s of marketing, which isn’t so much a “theory” as a heuristic. Physical therapy students learn anatomy and physiology, to be sure, and those are “academic” but inform practice. Journalism students may learn “theories” about the best way to structure a story, and maybe about ethical systems. My point is not that you don’t teach “theories” in professional schools, but that those theories are usually more clearly related to practice than some in liberal arts colleges might be.

In any case, I want to suggest that knowledge and learning in the workplace are even more different than that from knowledge and learning in school. That is, the _integration_ isn’t as simple and straightforward as the rhetoric implies. Weber and the Department of Education don’t map onto each other in obvious ways. So today I want to subject those assumptions to a critique, and to explore what that critique suggests about the responsibilities that we have and the educational methods that we use. Here’s the structure I propose to follow: First, I will briefly lay out a philosophical and theoretical foundation for my analysis of our responsibilities. Then I will address three forms of that responsibility, noting both the _challenges_ and the _opportunities_ that we face. [SLIDE] Of course, we have other responsibilities – knowing our students, knowing our _disciplines_ – but I want to focus on three:

First, we need to understand what I will call the _situated curriculum and pedagogy_ of the workplace: the ways knowledge is defined, distributed and used in natural settings like museums and hotels and physical therapy clinics; we need to be clear about the ways student-interns and other new workers encounter, engage and experience that knowledge, and the ways that that engagement enables or impedes learning.

Second, we need to develop a sound _curriculum and pedagogy back at school_ that recognizes and accommodates the _differences_ between situated and academic knowledge, that understands the compatibilities and synergies, _and_ the discontinuities and contradictions between the two domains, and that helps students navigate – and _learn_ from – the complex relationships between them. In speaking to that challenge, I will argue that, especially in liberal arts colleges but _even in professional schools_, we have the responsibility to enlarge the learning past the “merely” professional or technical, and to get students to think about wider issues, concepts and principles. That is, I want to suggest that WIL should _not_ be exclusively about preparing students to perform competently in professional roles – although clearly that’s important. Rather, I believe that the mission should also be about enlarging students’ capacities for critical and creative thought, for meaningful and effective social action in _and beyond_ the workplace, and for caring and just relations with others. (By the way, after three days here, I have the impression that very few of you would disagree.)

But this position, as you probably know, is not universally shared. Just a couple of weeks ago, Thomas Friedman, the New York Times columnist who wrote _The World Is Flat_, wrote a piece called “It Takes a Mentor,” in which he reported on a study by the Gallup organization that argued that two things stand out as factors in college that produce “engaged employees on a
fulfilling career track”: mentors who took interest in students headed for careers; and internships where they “applied” what they were learning in school. Friedman’s assumption seemed to be that college is all about preparing for work, and not about all the “soft” goals I’m advocating. I believe that position ignores the crucial importance of other aspects of people’s lives.

Third and finally, I will argue that we have a responsibility to promote this way of understanding and enhancing learning across domains as a way of reinventing the nature of higher education. By that I mean developing (1) new conceptions of what counts as knowledge in the academy; (2) new forms of social relations between students and faculty, and (3) new intersections between the university and the wider community and society. More on all these in a moment.

[SLIDE] First, let me say a word about the theoretical premises of my analysis of our responsibilities. I do not, for example, rest my case on some of the classic conceptions of knowledge: the Platonist notion of knowledge as ideal, disconnected from and even threatened by experience; or the Cartesian idea of knowledge as resting entirely on rationality; or the behaviorist notion of knowledge as a function of stimulus-response arcs or conditioned learning, with its image of the person as a passive responder to external forces. That stuff just doesn’t work for me.

Instead, my foundational ideas about knowledge, thinking, and learning rest on an eclectic set of philosophies starting with pragmatism, moving through constructivism and interactionism to sociocultural studies and activity theory. It draws in particular on several forms of what might be called social practice theory: situated cognition; distributed cognition; and especially situated learning theory. It also has roots in critical theory: people like Paulo Freire, Michael Apple, Henry Giroux, Ira Shor. Anyway, enough name-dropping . . .

[SLIDE] The basic planks of this platform are several:

[CLICK] First, learning is an active process of constructing meaning. Freire critiques the “banking model” of education which sees bits of knowledge being deposited intact in the learner’s mind; I think he’s right. Individuals do not simply receive knowledge like collecting marbles in a bucket, then hauling them out and applying them whenever they’re needed. Instead, learners engage in processes of interpretation, sense-making, and decision-making as they encounter problems in the world; they think things through, using what they knew and believed before as well as resources in the current environment.

[CLICK] Second, knowing and thinking are embedded in social and cultural contexts, and differ across those contexts. What “counts” as knowledge in one place may not in another. These historical, cultural situations have knowledge resources that participants use, manipulate, reformulate, and challenge; those resources provide certain affordances and constraints for thinking and acting. Culture doesn’t determine thought and learning, but it certainly shapes them.

[CLICK] Third, learning depends on getting access to the use of knowledge, on what Lave and Wenger call “legitimate peripheral participation,” or at least to observing knowledge in use. As the research on distributed cognition demonstrates, the cognitive work of a particular activity is often spread across participants and technologies; there’s a division of cognitive labor such that no one person knows everything that the system knows. One assembly-line worker doesn’t know how to build a car, but General Motors does. This premise undermines the simple
assumption that some experiential educators make that a student placed in, say, a law firm will learn “all about the law.” Not if she’s in the back room collating documents for a brief, she won’t.

[CLICK] Finally, teaching is not a matter of telling people about knowledge, but of engaging them in activities in which they participate in a social practice that manifests the forms of knowing they need. This concept, by the way, is as true of classrooms as it is of workplaces: Learning in the classroom ideally involves participation in a community of practice (say, physicists, historians or accountants). This means that I use the term pedagogy to refer not just to intentional acts of instruction, but to the social organization of the processes by which participants in an activity system do or do not get access to observing, engaging, and using certain kinds of knowledge. What we have to look at is not just the supervisor consciously teaching the physical therapy student how to assess a particular condition, but the social processes that give the student access to a full range of knowledge-in-use.

OK, so those are the premises I’m working from. Now let me say more about each of the responsibilities we have as experiential educators.

[SLIDE][CLICK] The first one, again, is that we have to understand – and acknowledge, and accommodate – the nature of knowledge and knowledge-use in the settings where we place our students. In the US, at least, experiential educators tend to assume that that understanding is straightforward: that if you place a student in a soup kitchen, she’ll learn about poverty; if a student works in a hospital blood lab, she’ll learn the science of blood chemistry. Well, maybe, maybe not. Rather, I want to argue that what a student learns is a function of what I’ve called situated curriculum and situated pedagogy: the naturally-occurring definition, distribution, and use of knowledge in the specific context.

Let me illustrate this point with a couple of examples from our research. Heather was an intern in the education department of a state history museum, where her eventual job was to lead elementary school classes on tours of the facility. Once she was trained, she met the classes at the door; took them to an auditorium where she welcomed them, gave them some introductory remarks about the museum, showed them a movie about colonial life and then discussed some artifacts with them – candlestick molds, bedwarmers, and so on; finally, she took them to a couple of exhibit halls, where she gave them exercises like drawing examples of transportation.

The first aspect of understanding this setting as a learning environment is to identify the socio-cognitive task demands of her work: the things she needed to know and be able to do as she performed the role of docent. The obvious “content” was about state history: She had to know (and therefore learned), for instance, that the Erie Canal opened in 1825; she encountered all sorts of factoids like that in her work. But she also needed to know something about working with young children – how they think, how they act – because she had to manage the class’s behavior in order to pass this information on to them. She needed to know something about public speaking, about teaching practices, and about professional interactions with the classroom teachers. There were social and emotional elements to her curriculum, as well: She had to know how to control her minor panic when a kid asked her a question she couldn’t answer; she had to recognize and counteract her preference for certain kinds of children. It’s also important to identify what she did not engage in her work: for example, theories about the impact of the Erie
Canal on economic development in New York State in the 19th century.

[CLICK] Second, you need to understand the situated pedagogy: the social organization of Heather’s access to these various forms of knowledge. One aspect of that process is the way an intern’s work gets established, accomplished, and processed: that is, how she finds out what she’s supposed to do; how she works with people, information and material resources to get the work done; and how she gets feedback on her work and has a chance to rethink her strategy for the next time. In Heather’s case, she was eased into the tour-guide role in a systematic, gradual way. After observing several veteran docents as they led class tours, she worked with a few school kids on their drawing exercises in the transportation hall. The next day, the main guide was called out of the auditorium after the film on colonial life, and asked Heather to “do the artifacts cart”: show the kids the candlestick mold and the bedwarmer, and so on, and get them to talk about those objects. So she gradually got scaffolded into the several elements of the tour process, and then got to act as the primary guide – with her boss following along the first couple of times so she could get immediate feedback and coaching. That is, the tour guide role encompassed a large variety of knowledge forms, and Heather was fully integrated into that role; so she engaged all that knowledge-in-use. There were other aspects of the situated pedagogy, as well: She could use the education department library to look up answers to questions that she hadn’t been able to answer; she and other docents would sit in the lounge at lunchtime, and discuss their experiences in the tours, telling “war stories” that contained powerful lessons for Heather. So as a learning environment, the history museum provided a rich curriculum and a solid pedagogical system for engaging the intern with it. By the end of the year, she was a very competent tour guide.

But things don’t always go that well. Another student, Linda, was placed in a curriculum development firm that produced educational resources for urban school districts. There was a tremendous variety of knowledge-in-use in this setting, as you can imagine. But by contrast with the museum, the firm had a highly specialized division of labor: The project managers negotiated the terms of the contracts with the school districts; curriculum specialists laid out the general design of the projects; the writers generated texts for each unit, and the artists created appropriate graphics. The student-intern was relegated to an auxiliary role: proofreading copy, collating elements of the lessons, and so on. Her tasks were established for her clearly by her supervisor – who showed Linda how to calculate the reading level of a piece of prose, for example – but they were not placed in the larger context of the project. Basically, the supervisor said, “Here’s a task; here’s how you do it; let me know when you’re finished.” So Linda couldn’t get a deep sense of what else was going on upstream and downstream from her position; she didn’t get the “big picture” that would help her understand the nature and functions of all the pieces of the project. And many of the production processes were not accessible to her: The managers’ doors were literally closed when substantive decisions were being made; the writers and artists actually worked off-site. So Linda’s learning was limited despite the richness of the knowledge in the organization. It’s these details, the actual lived experience, that matter in analyzing the quality of work-based learning, not the general character of the environment.

[SLIDE] So in observing about 70 internship sites, we reached a couple of major conclusions – which won’t seem all that profound when I say them aloud, but which contradict some of the common assumptions about experiential education. [CLICK] First, the situated curriculum is not
always what you think it’s going to be. Given the position the intern holds as a newcomer, a marginal participant with only entry-level knowledge and skill, she often takes on relatively mundane tasks requiring fairly algorithmic performances. Moreover, much of the cognitive and technical labor is often distributed across the staff and the technology. In pedagogical terms, the intern does not always get the access that she needs in order to learn the things we hope she will. Her exposure to knowledge used in the setting is driven more by the production needs of the organization than by a pedagogical strategy rationally designed to enhance learning. She rarely takes initiative or creates new opportunities or processes, because of the micropolitics of knowledge in the situation; her role is dependent and circumscribed, allowing for limited exploration and invention. If the site can’t afford big mistakes, it keeps her from playing a big role – and the role, in a sense, constitutes the curriculum of her experience. That’s not to say there is nothing to be learned – as you all know well, there’s a lot of substance in the experience itself – but it’s not always as rich or as systematic as we first think.

[CLICK] Second, the elements of the situated pedagogy do not always get enacted the same way or to the same extent in different settings. We saw a range of pedagogical strategies and tactics used in these sites: sink-or-swim; front-loaded instruction; modeling; occasional supervision, mentoring, and so on. Sometimes interns got the information they needed up front, and sometimes they had to dig it up themselves; sometimes they received clear and substantive feedback on their performance, and sometimes they heard nothing. We thought at first that there would be some correlation, some regular relationship, between the nature of the work newcomers did (the curriculum) and the pedagogical strategies used on them – but those patterns never appeared: An intern might get really thin before-the-fact instruction for a crucial job, despite the importance of the work; on the other end of the spectrum, a supervisor might spend an hour processing a minor performance with the student. It didn’t always make educational sense.

[SLIDE] Those differences were a function of certain factors that shaped the extent and nature of the situated curriculum and pedagogy for the student. Those factors fall into three general categories:

[CLICK] First, features of the individuals: things like personality (is the student an introvert or an extrovert; is she open to new ideas; does she take initiative?); learning style; and, of course, background experience. Heather, for example, had actually visited the museum a number of times as a kid; another intern in the same site who had never gone to museums before, and ended up bailing out mid-way through the term.

[CLICK] The second category is features of the organizational context: for instance, whether the division of labor was strong or weak, hierarchical or flat; whether the workplace culture was competitive or collaborative, fast or slow, formal or informal; and access features: what it took to get access to observing, engaging, using, or inventing forms of knowledge. Despite the cultural support for learning in the curriculum development firm, Linda couldn’t crack a highly specialized division of labor, and therefore didn’t learn much other than her specific work.

Finally, features of the larger environment shape the affordances and constraints in the workplace: sometimes they might be regulations and labor laws (an intern in a veterinary clinic could not perform certain tasks because of licensing requirements); sometimes market conditions (Linda’s firm faced stiff competition, and was therefore unwilling to give her room to make
mistakes or experiment); and sometimes they might result from technological changes: A hospitality and tourism intern placed in the operations office of a hotel used a computer system that told him where housekeepers should be assigned when they had finished certain rooms – a decision that he would have had to make several years earlier, but that was now off-loaded onto the technology.

[SLIDE] Understanding these aspects of situated curriculum and pedagogy, complex as it is, gives the educator a leg up on two important processes:

[CLICK] First, placement: You can choose and develop (or reject) placement sites better on the basis of your analysis of the curriculum and pedagogy practiced there. Is the student likely to engage the kinds of knowledge she needs? What are the access characteristics of the situation? Doping out these features of the site presents big challenges, of course: Too many factors – from the “chemistry” between the supervisor and the student to the competitiveness of the market – shape the quality of the intern’s experience – but with a framework like this in mind, you can at least give it a shot.

[CLICK] Second, the analysis helps in planning the curriculum and pedagogy back at school: It reveals the ways in which the situated curriculum does or does not align with the content and strategy of your program. It helps you answer question like, Where are the gaps in what the student will learn onsite, and what can you leave alone? Are there lessons that you will have to revise or contradict? We watched a journalism student placed in a community newspaper get terrific instruction from his editor when they sat down to discuss the intern’s first draft, so the school did not need to offer writing instruction; but the same editor left the student pretty much to his own devices when it came to interviewing skills, so the school needed to fill in that gap.

So, again, the first major responsibility is to understand the specific learning opportunities and limitations in the settings where your students work.

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The second responsibility is to develop a curriculum and pedagogy back at school that acknowledges and accommodates that situated learning, and enlarges it in ways consistent with the core missions of your program and of higher education. Let me restate my premise here: The situated learning is not enough – if it were, new workers would learn what they need through apprenticeships and entry-level jobs, and wouldn’t need to go to school. For lots of reasons, that just isn’t sufficient these days. But if we are going to offer work-related education programs in colleges and universities, we have to understand and develop the intersection between the knowledge and learning in the workplace and the knowledge and learning in school.

The work-integrated learning community in Australia has apparently focused on that problem around the concept and practice of integration – and my impression (again, from a great distance) is that you’re doing a better job than similar programs in the States, where the process usually goes like this: (a) identify the job-related knowledge and skills that employers say they need; (b) teach that stuff in college (or high school, or trade school). Stephen Billett and others have written and edited a number of volumes investigating that practice here more thoroughly. But I want to suggest that the integration process is even more complex and challenging – and, ironically, richer with educational possibilities – than the discourse Down Under admits.

[SLIDE/CLICK] First, there’s an apples-and-oranges problem: According to situated cognition
theory, knowledge used in one setting does not map neatly onto knowledge used in another. Even when the two look alike, there may be important differences in the way they are formulated, stored, and used. Take my friend Heather, for example, and the little factoid about the Erie Canal’s being opened in 1825. In school, that’s a nugget that might appear on a multiple-choice test in her American history class; or she might use it to think about economic development in New York in the 1830s: It’s basically a tool for academic performance and for abstract reasoning. In the museum, it may be buried in a caption on an exhibit in the transportation hall; or she may drop it into her talk after the movie about colonial life: It’s a tool for practical interactions with clients, less a historical tidbit than a social resource. She understands it differently, makes sense of it differently, uses it differently. More broadly, Heather’s engagement with “history” is different in the two contexts: theoretical and systematic in school, practical and situational in the museum.

Even when the knowledge seems technical, canonical, and trans-situational, complications may arise in the process of application. An accounting student who learns the dominant method for double-entry bookkeeping (I’m over my head here!) may discover that its use in her internship site challenges the system her teachers described: The work is divided up differently, some of it is off-loaded onto technologies she didn’t encounter in school, and the company tweaks the method in service of some idiosyncrasies and self-interests.

One way of thinking about the knowledge differences between school and workplace is the concept of modes of thinking. I draw especially on Jerome Bruner, who describes several primary ways of defining, organizing, and using knowledge, among them: (1) the propositional (or linear or scientific), in which “truth value” is the core issue, and is based on logic, empirical evidence, and verifiability, where one thing follows from another, often in cause-effect sequences (for example, Heather might look for historical evidence of the economic impact of the canal); (2) the actional, in which what counts as knowledge depends on its utility in a practical situation (so Heather might use the 1825 tidbit as a way to establish her authority as a docent, or to keep a conversation moving); and (3) the narrative, in which storytelling functions as a way of building solidarity, of articulating principles or making arguments (the way Heather tells a story about a tour group to other guides over lunch demonstrates her competence in that role).

[CLICK] Another device is to think about the content and sequence of the curricula in the two settings: Does the student get access in the workplace to all the facts, ideas, and theories that you want her to engage? Are there other aspects of New York State history, or of theories of economic development – or, for some of you, of physical therapy – that you want her to learn? Does the work experience expose her to this curriculum in an order that is appropriate and effective for learners? Does she need to learn A before B before C, and does the workplace organize her exposure that way? How and where does she get the big picture? Is 1825 just a disconnected factoid, without a larger framing device? Obviously, the situated curriculum in a workplace will never look exactly like a course syllabus or a program sequence.

So the challenge is that knowledge isn’t defined, distributed, and used in the same way in school and at work. We need to think about how to adjust our school-based practices in a way that not only “integrates” school and work, but fills in the gaps, accommodates the socio-cognitive and
technical differences, and goes beyond the experiential. [CLICK] That raises a problem generally called *transfer of learning*: Under what conditions and to what extent will knowledge acquired in one setting be transferred to – used, useful in – in another? About a hundred years of research suggests that that transfer doesn’t happen nearly as often or as completely as we intuitively believe. This is an issue both of *curriculum* (what’s the content?) and of *pedagogy* (how can you organize learning experiences?).

[SLIDE] The *opportunity* created by the difference between knowledge at work and in school is that educators can use those very differences as a *teaching* resource, as a way of getting students (and practitioners, and themselves) to interrogate both models *and* their intersection. [CLICK] There’s something paradoxical about the role of an intern, who might be called a “student-worker”: On the one hand, a student by definition needs to learn something; on the other, a worker is presumed to be competent, to know how to do something. The educational value in that paradox is that the student has the warrant to ask questions and investigate connections that a “mere” worker would not, and would not dare to. One of our student-subjects worked in a municipal housing department, and after several weeks revealed that she didn’t actually know what unit she was in, or who her boss reported to, or more generally what functions the department served and how all the pieces fit together. Here’s the irony: She could *do her job* perfectly well *without* knowing those things. But as a student, she could ask what would have been “stupid questions” if she had just been a worker; she was expected to get the big picture, explore the larger issues, and connect her experience to things she was learning in school – in this case about things like urban development, the economics of housing, and the politics of gentrification. As in the Weber/Department of Education example, these connections aren’t easy or natural – but that’s one responsibility we have as the university-based educators: to find and exploit those connections.

[CLICK] The general term often used to denote the thinking-learning process that we encourage is *reflection*. The word has a common connotation, something like “thinking hard about something.” You have the experience, and then you think about it: How did it work? Did I like it? But I want to suggest that experiential educators should use the term to refer to more than mere thinking, but also to systematic, rigorous interrogation and investigation of experience in relation to academic and professional ideas, concepts, and theories. We sometimes invoke the phrase *critical thinking* to point in the same direction, but that term also covers a lot of vague ground. I want it to imply hard-nosed analytical thought, sure, but also what might be called *critique*: not taking the experiential world as given, taken-for-granted, but getting under the hood to ask pointed questions about why things happen the way they do, about whose interests are served, about the impact of the work site’s practices on society at large – something like *critical theory* in the Frankfurt School sense. As I said earlier, I don’t think the university’s mission is simply to train workers for the existing economy; it’s to help students develop the tools for thinking more broadly about their work, their institutions, their social context, even their politics. A geology student doing an internship at BP should learn not only about locating and recovering oil, but about the economic impact of deep-ocean drilling and the ethics of environmental protection. A fashion student working at a PR firm should be thinking not only about the techniques for branding a new line of clothes, but about cultural conceptions of beauty, and the way they fit into social issues like eating disorders. I had an advisee once who did successive internships at a fashion magazine, a major clothing producer, and a PR firm; at the same time, I
encouraged her to take courses in cultural studies, where she read people like Adorno and Bourdieu and Stewart Hall – and I knew I had done my job when she once said to me, “I get up in the morning and look at myself in the mirror and ask myself, What am I doing?!” She actually went into the fashion industry after she graduated, and that’s fine with me – because she thought about her practice in ways that she wouldn’t if she had just done conventional internships. She was a reflective practitioner – and I think that’s where we need to go as higher educators.

[SLIDE] The pedagogical methods for acting on the responsibility I’m describing are probably familiar to you: the learning contract; the internship journal; the guided assignment; the final paper; the concurrent seminar. There are plenty of choices out there.

[SLIDE] But my purpose today is not to present those pedagogical methods – it’s to encourage you to think about the underlying assumptions and missions of the choices you make in constructing a program and teaching your students. One way of organizing your thinking about those choices is to imagine a spectrum that varies in both cognitive and political terms:

[CLICK] On the vocational education end of the spectrum, we teach students how to function in specific, existing professional roles; we produce technical training, and our students learn to perform the tasks they’re supposed to know how to do. In Bourdieu’s terms, we promote the reproduction of the existing political economy. I’d call this option conservative.

[CLICK] In the middle of the spectrum are variations on liberal education: We teach students to think about work in somewhat broader terms, connected to theories like Weber and Rawls as well as to theories about marketing; we raise issues of ethics, social problems, etc.

Toward the other end – I’d say the left end – are forms of critical pedagogy: We help students learn to critique the social and political institutions they work in, to understand the distribution and use of power and privilege, to address questions of race, class, and gender.

All three moments in the spectrum have political implications, though the vocational approach doesn’t talk about them and the liberal approach addresses them in softer terms than the critical pedagogues, who use terms like “struggle” and “ideology.” Either way – and I think there are principled cases to be made for any point on the spectrum – I am arguing that we have a responsibility to make that choice consciously and to let others know what we’ve chosen.

By the way, “bridging” (as in my title) isn’t the right term for the relationship between theory and practice. It’s more like a dialectic, a tension, a live and fraught back-and-forth. One side, school-like knowledge, tends toward the universal, the necessary, and the certain. The other side, practical knowledge, is more about the particular, the contingent, and the probable. The tension between them can be resolved in a bad way: One dominates the other, so you swing toward theory or toward practical skill. But it can also be handled in a productive way: by maintaining the tension and exploring it, by going back and forth between the modes of thought and resisting easy resolution. It’s less like “crossing a bridge” than like playing dodge ball!

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[SLIDE] Finally, I want to say a word about a third responsibility that we have as educators: to use work-integrated learning or experiential education as a lever for reforming the academy, for shifting the mission and practice of the university toward a more progressive and holistic stance. There are three ways I think that can happen:

[CLICK] First, this approach to education embodies a conception of knowledge that expands the
traditional notion of it as *abstract*, theoretical, and conceptual, as generated and given authority by credentialed “masters” – a conception manifested especially in liberal arts colleges, and represented by Aristotle’s term *epistemé*. This expanded conception also goes beyond the *practical*, technical, how-to knowledge, typically thought to reside in the professional school or technical college, the kind of knowledge generated by “experts” and passed along as *methods and procedures* – what Aristotle meant by *techné*. Rather, if we manage to pull off the *integration* advocated here in Australia, we move into a realm of knowing and action that erases the theory/practice binary, that sees all activity in the world – whether in the classroom or the workplace, the household or the community – as manifesting varied forms of knowledge that shape understanding, behavior, and relationships alike, that bear at once on morality and ethics and politics: We move into what Aristotle called *phronesis*, and what the philosopher William Sullivan calls *practical reason*.

In this model, the mission of higher education – whether in small liberal arts colleges, in huge multiversities, or in professional schools – transcends the theory/practice divide by aiming to help everyone become what Donald Schön called a *reflective practitioner*, the master not just of abstract, canonical theory or of technical, expert procedure, but of thoughtful ways of engaging, critiquing and transforming ideas that have ramifications in the world. This is a form of knowing that goes beyond “what is?” to “why is it this way and not some other way?” to “who benefits from this way of thinking and acting?”

Second, experiential education can promote new relations between students and faculty. Traditional schools – whether academic or professional – operate on the model of the master teaching the neophyte, where the former knows everything worth knowing and passes it along to the latter, and certifies them as “competent” when they’ve demonstrated a mastery of that knowledge. What work-integrated learning demonstrates better than most is that everyone is a learner and everyone is a teacher, that every participant in a community of practice has a knowledgeable role to play, that we are all colleagues in a process of inquiry and action, where some know more than others but everyone is engaged in constructing, testing, revising, and critiquing knowledge.

That leads to the *third* element of the new model of the university: one that creates the conditions for a new relationship between the academy and the wider world. It gets away from the notion of the university as the site of all legitimate knowledge production. (Of course, the university’s claim of a monopoly on generating knowledge has *never* really been true, and has been undermined by the internet, by think tanks, by public intellectuals, by a whole raft of postmodern processes that democratize knowledge.) I think experiential education stands to play a central role in the changing mission of the university in society because it is a natural forum for knowledge-in-action for academics *and* people from the “real world.” Participatory action research is just one early model of what work-integrated learning, civic engagement, and other forms of collaborative education can accomplish. Work-Integrated Learning, specifically, is a process in which university faculty and students cooperate with practitioners on the generation, testing, and use of new knowledge. But the mission can go even further, beyond civic education to a way of engaging diverse groups of people in learning and knowledge production.

This is a tall order, to be sure – and it’s one I concede I myself haven’t been very successful at
promoting – but I think it’s a crucial opportunity which will take experiential education and work-integrated learning beyond job training, beyond theoretical inquiry, beyond “service to the community,” and into nurturing fully human beings and a healthy society. So those are several things I think we need to consider as part of our mission in this community of practice. I hope my comments spark some thoughts and discussions for the conference, and would be happy to open that conversation now.

Thank you very much.