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## **Backwards into the Future: Seven Principles for Educating the Ne(x)t Generation**

by Helen Sword and Michele Leggott

*We walk backwards into the future, our eyes fixed on the past.*  
—Maori proverb

Western culture maligns the act of looking back. Orpheus, the legendary poet of Greek mythology, lost his wife, Eurydice, to the underworld when he turned around to steal a glimpse of her walking behind him. Lot's wife, in the Old Testament Book of Genesis, was transformed into a pillar of salt when she glanced back at the burning cities of Sodom and Gomorrah. This essay outlines seven key strategies for developing in our students—and consequently in ourselves—a skill that eluded both the illustrious Orpheus and Lot's unfortunate wife: the ability to see both forwards and backwards, to encompass past and future alike in a single panoramic gaze. All of our examples and illustrations are drawn from an upper-level English course at the [University of Auckland](#) called [Poetry off the Page](#). However, these strategies lend themselves to a wide range of subject areas, with the particulars adjusted to suit disciplinary norms and aspirations.

### **English 347: Poetry off the Page**

English 347: Poetry off the Page examines the digital revolution's implications for reading communities by focusing on three main areas of inquiry: live performance (poetry off the page, the old-fashioned way); digital poetics (multimedia options for poetic texts both old and new); and the poetry archive (the preservation and presentation, both physical and electronic, of rare or unique poetic materials, including notes, manuscripts, limited editions, and performance records of various kinds). In contrast to traditional English courses, which are mostly paper-based, our reading materials can all be found on the Web, and the students present their work in the form of interactive Web pages that are accessible to everyone in the class, thereby forging a virtual learning community to parallel the physical community of the classroom.

Teaching to the future, we contend, involves forging pathways for our students that we do not necessarily intend to travel ourselves. If students of the "Net Generation" already have distinctive proficiencies informed by their intensive use of information technologies (cf. Oblinger and Oblinger [2005](#)), Poetry off the Page seeks to equip the "Ne[x]t Generation" of students to face the intellectual, technological, and cultural challenges of the future without losing sight of the past. The seven principles that underpin our course design draw on Chickering and Gamson's ([1987](#)) influential "Seven Principles for Good Practice in Undergraduate Education" but also suggest, twenty years later, some new directions for teaching. Although they were developed in response to the technology-rich environment that so many of our students inhabit, all seven of our principles can be fruitfully applied in low-tech as well as high-tech contexts.

#### **1. Relinquish Authority**

*Erudition (n.): Dust shaken from a book into an empty skull.*  
—Ambrose Bierce, *The Devil's Dictionary* (1911)

We know much more than our students do. But they also know much more than we do. When we renounce our own exclusive status as erudite experts, placing our students in the role of teachers and ourselves in the role of students, not only do we model for them the benefits of life-long learning, but we allow them to

experience firsthand what every seasoned teacher already knows: If you really want to master a subject, teach it. While direct responsiveness to student input might not be practicable or indeed advisable in all teaching situations, instructors can find many ways of granting increased intellectual authority to their students, even in large, highly structured lecture courses ([Exhibit 1](#)).

In Poetry off the Page, we acknowledge from the outset that our students' information literacy skills will in many cases surpass our own; thus we depend on them to push the envelope of possibilities in their online assignments and to teach others, and us, new skills. We provide ample support and encouragement to "trailing edge" students whose online capabilities barely extend beyond e-mail, but at the same time, we leave the door open for those at the leading edge to suggest innovations that we ourselves would be incapable of imagining, much less of implementing. For example, when our first cohort of students asked our Web master (a staff member from the Faculty of Arts Multimedia and Technology Support Unit) for the ability to bypass the course Web site's content management system and upload Flash files, Dreamweaver creations, and multimedia artifacts produced using open source software, we actively supported their demands. Before long, even some of our most technophobic students were clamoring to master new applications—often under the eager tutelage of their technophilic classmates—in order to realize more complex results. With each new iteration of Poetry off the Page, our students' expertise has driven the course design, rather than vice versa.

## 2. Recast Students as Teachers, Researchers, and Producers of Knowledge

*Research is what I'm doing when I don't know what I'm doing.*  
—Wernher von Braun (attributed)

The much-vaunted "research-teaching nexus" has been given considerable lip service in recent years, in part as a corrective to the perceived fissure between the cultures of research and teaching at research-intensive universities (Marsh 2002, Griffiths 2004, Gottlieb and Keith 2004). All too often, however, professors who disseminate their own research findings in lecture provide few opportunities for undergraduates to undertake significant research projects of their own. Teaching to the future demands that we imbue students with a sense of intellectual purpose, instill in them a desire to make a difference, provide them with opportunities to reach a wider audience, and furnish them with the tools to break new ground. By recasting students as researchers and teachers, we invite them to participate in what is arguably the most exciting and fulfilling aspect of university life: the production of new knowledge ([Exhibit 2](#)).

In Poetry off the Page, our students' final project requires them first to locate interesting archival materials in the University of Auckland's Special Collections—unpublished drafts, typescripts, diaries, letters, photographs, newspaper clippings, recordings, and the like—and then to produce a polished, informative hypermedia exhibit that links those materials metonymically and/or metaphorically. Even within the relatively limited community of a password-protected Web environment, we have found that the mere act of transporting previously unpublished poetic artifacts from the physical archive into the dustless realm of cyberspace inspires in our students a remarkable sense of energy, excitement, and accomplishment. Some of the very best past projects are now featured—with the students' enthusiastic permission—as permanent exhibits in the [Archives](#) section of our course Web site; inclusion in that archive has become a goal to which our best students in each class can aspire.

## 3. Promote Collaborative Relationships

*La poésie doit être faite par tous. Non par un. (Poetry must be made by all. Not by one.)*  
—Isidore Ducasse, Le Comte de Lautréamont, *Poésies II* (1870)

We would be hard pressed to name a profession—including academe itself—that does not demand some

ability to interact effectively with other human beings. Yet higher education remains, especially in the humanities, a highly individualistic enterprise. In a typical English course, students write their essays for an audience of one—namely, the instructor who does the grading—while "group discussions" frequently consist of individuals talking directly to the teacher with little regard for their peers. In a discipline built around the ideal of the lone genius, our epigraph to this section remains as wishfully subversive today as it was a century and a half ago.

Our socio-cultural landscape is rapidly changing, however. Outside the classroom, through social software such as wikis, chatrooms, and blogs, our students are creating collective knowledge right and left, breaking down traditional boundaries between "me" and "us." Teaching to the future involves harnessing the collaborative impulses already at large in digital culture and directing them toward educational ends, so that "group work" shifts in our students' perception from an eyeroll-inducing educational gimmick to a cutting-edge skill worthy of cultivation and scrutiny.

A number of strategies are available to teachers seeking to create a collaborative environment in their classrooms ([Exhibit 3](#)). In *Poetry off the Page*, we ease our students into collaborative work through a variety of ungraded activities such as [live performances](#), a [poetry-chalking exercise](#), and a [class wiki](#). Equally importantly, we expose students to the theories and debates surrounding collaborative digital enterprises such as archival Web sites, wikis, and open source software, all of which relinquish the cult of the individual author in favor of a constantly evolving communal product. Our students have engaged with these issues in thoughtful and sophisticated ways; one wrote such a compelling exam essay on Web poetics and the gift economy that we encouraged him to expand his thoughts into an article that eventually appeared in a peer-reviewed online journal (Harrison [2006](#)).

As the semester progresses, students practice collaborative skills by reading and commenting on each other's bi-weekly Web pages, an exercise that works most effectively, we have found, when we provide detailed response rubrics, offer feedback on the quality of their feedback, and ban more than one use of the word "awesome" per semester. Later, they take part in a formative peer assessment exercise during which we project draft versions of their final projects onscreen while classmates ask questions and provide suggestions for improvement. The success of this "Live Crit" session (a concept borrowed from architecture and the fine arts) reflects the atmosphere of collaboration and trust that we have consciously cultivated among the students all semester ([Exhibit 4](#)).

When we require our students to engage with each other critically and creatively—and help them understand *why* we impose such requirements—we liberate them from the tunnel vision that restricts so much academic endeavor. At the same time, we prepare them to take an active role in shaping the collaborative enterprises of the future. If the popularity of open source software programs, course management systems, and communal knowledge sites such as [GNU](#), [GIMP](#), [Moodle](#), [UbuWeb](#), and [Wikipedia](#) offers any indication, the information economy of the twenty-first century will be made "by all, not by one," and those who already have practice in pooling their resources and working effectively with others will be ahead of the curve.

#### **4. Cultivate Multiple Intelligences**

*Higher education is an aquifer, not a spigot.*  
—Nancy Ruther, 2003

Educationalist Howard Gardner (1983, 1999) argues that all of us, students and teachers alike, possess at least eight different "intelligences"—spatial, musical, bodily-kinesthetic, naturalistic, interpersonal, intrapersonal, linguistic, and mathematical-analytical—and that no two human beings display an identical intelligence profile. Our educational system, Gardner notes, typically assesses and rewards only the linguistic and mathematical-analytical intelligences, yet most professions demand a wide range of performative aptitudes and abilities. A surgeon operates spatially and kinesthetically; a poet draws upon mathematical and

musical sensibilities; and a teacher requires both interpersonal and intrapersonal skills (or what Goleman [1995] calls "emotional intelligence"). Education for the future needs to address all of these many abilities, teaching students to be aware of and make use of their own particular gifts ([Exhibit 5](#)).

In *Poetry off the Page*, we explicitly cultivate our students' multiple intelligences by offering a variety of performance opportunities and assignments, including writing assignments (linguistic), critical reading (analytical), graphic design (spatial), physical performance (bodily-kinesthetic), audio recordings (musical), collaborative work (interpersonal), and reflective exercises (intrapersonal). Rather than filling students up at the tap of our own (mostly verbal) disciplinary knowledge, we encourage them to build on their own interdisciplinary aptitudes and to develop the skills to find their own sources of information and inspiration in a complex, rapidly changing world.

## 5. Foster Critical Creativity

*If you want to really understand a text, change it.*  
—Rob Pope, *Textual Intervention* (2006)

"Creativity" has become a familiar buzzword among academic pundits, who warn us that the workers of tomorrow will confront issues, problems, and technologies that the teachers of today cannot yet even imagine ([Exhibit 6](#)). Our own university has gone so far as to enshrine creativity in its official graduate profile, listing "a capacity for creativity and originality" among the intellectual skills that all undergraduates should be able to demonstrate by the time they graduate ([2003](#), "II. General intellectual skills and capabilities"). But how do we teach creative thinking? Constrained as we are within our own institutional, disciplinary, and conceptual paradigms, how do we prepare our students to "think outside the box" in productive rather than purely anarchic ways?

In *Poetry off the Page*, we continually model, analyze, and reflect on how creative risk-taking can enable new critical insights. On the first day of lecture, we invite our students to join us in the writing and performance of a group composition called "The Poem of the Contents of Everybody's Pockets"; on the second day, we send them off around campus to chalk poems on the ground in public places; on the third day, we engage them in a critical analysis of both events, prompting them to come up with inventive ways in which such multifaceted live performances might be recorded (photographed? taped? videoed? narrativized?) for posterity. For graded assignments, we establish a fluid framework that challenges students to conform to rigorous academic standards but gives them free intellectual rein in other respects. Their final "digital archive" project, for example, must include at least five archival items, a detailed list of sources, and an analytical, exegetical component; however, they can package these mandatory elements in whatever way they believe will make their Web pages most appealing and memorable to their target audience. The sophistication, playfulness, and intellectual acuity of their completed assignments—which have taken the form of, among other things, a [digital scrapbook](#), a [newspaper clipping](#), a [four leaf clover](#) with hyperlinks hidden behind every leaf, and a [theatrical set](#) complete with tickets, program, and a red velvet curtain—suggest that the critical edge of the assignment sharpens rather than inhibits the students' creativity. Criticism looks back; creativity looks forward; and in the meeting of the two glances, sparks fly.

## 6. Encourage Resilience in the Face of Change

*Without Contraries is no progression.*  
—William Blake, *The Marriage of Heaven and Hell* (1790)

Critically creative people regard obstacles as opportunities; they welcome challenges because the act of surmounting impediments so often leads to unanticipated insights. An architect, given a choice between designing a house for a flat plot of land or for a bushy hillside with a stream running through it, will almost

always select the hillside option, because complex sites generate more innovative solutions than straightforward ones. A laboratory scientist, likewise, recognizes that disappointing results may provide new information and even inspiration. ("I have not failed," Thomas Edison is supposed to have said; "I've just found 10,000 ways that won't work"). An inventive sculptor will turn cracks and flaws into the central elements of a composition: "Every discoloration of the stone, / Every accidental crack or dent, / Seems a water-course or an avalanche" (Yeats 1956, 293). Every discipline has its stories to tell about the value of persistence, emotional hardiness, and lateral thinking.

In Poetry off the Page, we have watched our students face personal challenge, frustration, and even moments of black despair as they have struggled to master unfamiliar file formats or to upload Web pages that suddenly and mysteriously disappeared. We have also witnessed their excitement and satisfaction when their persistence has paid off—as when, for instance, a young woman with limited computing skills spent several hours in an internet café learning to use Adobe Photoshop, producing as a result a fabulous [kinetic poem set to music](#). Do we recommend that teachers should place deliberate impediments in their students' paths or that we should sabotage our syllabi with premeditated pitfalls? No, not really. But we have observed over and over again—in our students, our children, our colleagues, and ourselves—the crucial importance of cultivating intellectual resilience in a complex and often hostile world.

## 7. Craft Assignments That Look Both Forward and Backwards

*Will transformation. O be inspired for the flame  
in which a thing eludes you, resplendent with change.  
For the spirit of creativity, which masters what is earthly,  
loves in the figure's swing nothing more than the turning point.*

—Rainer Maria Rilke, *Sonnets to Orpheus*

(1922)

In Poetry off the Page, our combined emphasis on physical archives (preserving the past), poetic performance (experiencing the present moment), and digital poetics (anticipating the literature of the future) requires that our students continually turn their heads from yesterday to today to tomorrow and back again. As they struggle to develop appropriate digital platforms for unpublished archival materials and published print texts—to preserve, yet also to transform, the past—they become deeply invested in the poetics of the future. This double vision is the core attribute of teaching to the future. As teachers, we seek not only to cultivate our students' panoptic vision but also to make them aware of why we are doing so ([Exhibit 7](#)). "In the coming decades," warns hypertext theorist Jerome McGann, "the entirety of our cultural inheritance will be transformed and re-edited in digital forms," a monumental task for which both we and our students remain, by and large, seriously underprepared (2005, 181). When we teach only to the future, we abandon our responsibility as the curators of our intellectual heritage. Likewise, when we teach only to the past, we forget that our students have already booked tickets in the opposite direction.

## Conclusion

*Poets to come! orators, singers, musicians to come! . . .  
I myself but write one or two indicate words for the future,  
I but advance a moment only to wheel and hurry back in the darkness.  
I am a man who, sauntering along without fully stopping, turns a casual look  
upon you, and then averts his face,  
Leaving it to you to prove and define it,  
Expecting the main things from you.*

—Walt Whitman, *Leaves of Grass* (1855)

In his paean to poets, orators, and singers yet to come, Walt Whitman points the way to the future but then swiftly withdraws into the shadows, leaving his successors to "prove and define" his own poetic legacy. For all his self-confessed sauntering, Whitman exemplifies the very best kind of teacher: he inspires his students to action, offers them "indicative words" and examples, but then deliberately falls behind them, "expecting the main things from you."

With his keen eye for cultural disjunctions, nineteenth-century Whitman would no doubt have appreciated the dilemma in which so many twenty-first-century academics now find themselves. We long to impart a sense of historical consciousness to the "digital natives" (Prensky 2001) who increasingly inhabit our classrooms; but as "digital immigrants" ourselves—belated Old World arrivals in the brave new world of cyberspace—many of us speak the language of cyberculture haltingly and with a heavy accent. Our task, then, is to teach our students not to follow in our footsteps but to outstrip us. Glancing back at us from time to time for information and guidance, they will forge their own paths forward—and we can be proud of them for leaving us in the dust.

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