Academic skills in the screenish era

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1. Introduction
In response to the changing world after World War II, two American college presidents published books on the future of higher education in the US. The first, recognized by many honors professionals, was Frank Aydelotte's *Breaking the Academic Lockstep.* The second, perhaps less familiar, was *Vitalizing Liberal Education* by Algo Henderson, then President of Antioch College.

We remember Aydelotte today as having inspired honors programs and colleges across the country. Henderson, on the other hand, is remembered for his insistence that the entire college environment be directed towards educational change in the student; his legacy includes student governance, internships and co-ops and 'live-learn' communities.

Both thinkers sought to revolutionize the educational system so that it could lead the technological and cultural changes of the post-war world. They both prized engaged learning and individualization of the collegiate experience. And they both accepted that their students would face a world that was different in kind to the one for which they were trained.

Today, we face an analogous set of challenges: a new technological world-order and new forms of mass-education. But unlike Aydelotte and Henderson, we have largely ignored the cultural changes necessary to prepare students for a world unlike the one for which we were prepared. I believe that honors educators, thanks to the legacy of individualized learning celebrated by Aydelotte and Henderson, have the power to lead this new era, if they are willing to trust our students.

Digital technology allows for perfect replication of information. Non-digital replicas always have some imperfection, noise, or "static" introduced in the replication process. Digital replication does not have this imperfection—a digital file is identical to all of its copies.

This perfect replication of information implies a number of interrelated capabilities. First, by copying information from one physical device to another as they wear out, information is practically permanent. Second, storage of information is independent of the medium; a video can be stored on a hard drive alongside a text document. Third, information can be searched, classified, and compared quickly. And fourth, as networks of digital copying have increased in both speed and scope, information has become a distributed, not centralized, network.

The larger culture has begun to understand these implications—the European Union's General Data Protection Regulation (commonly known as GDPR) laws, for example, addresses the problem of practically permanent storage. But the academy has not shown many signs of adapting to this new world.

2. 'Bookish' and 'screenish'

Most faculty probably envision their ideal life as surrounded by books—they are what Ivan Illich called 'bookish' (Illich, 1993). In the UK, one does not "study" for a degree, one "reads" for that degree. Libraries frequently occupy the "academic heart" of a campus and have the appropriate architecture to match. Members of the academy today are the products of a European intellectual tradition dating back at least 8 centuries that identifies "being educated" with being intimately familiar with books. This bookishness will not be true in our students' lifetimes, if it is even true now.

Don't get me wrong—books are wonderful devices to store information. I love my books. But books have major shortcomings when compared to digital technology. Books do not replicate. The best version is *always* the original. They are limited to a small set of media: text, images, charts, tables. They are not easy to index or search. And proximity matters—to use them, one must be physically in the same location.

Most of us in higher education—especially those of us old enough to have leadership positions—were trained in the bookish era, and, hence, we tend to think of knowledge using the model of books. Primary sources rule. Proximity matters—the closer one is to the authority on a subject matter, the better or more reliable one's knowledge is. Information retrieval is inefficient; therefore, there is great value in summary documents (textbooks) and lexical memorization. None of these are necessarily true of knowledge. They are extrapolations from the metaphor of books, yet hard-baked in the culture of academia.

Current students are not bookish. They are, to coin an awkward word, "screenish." But this does not mean that the skills we teach have no place in the screenish world. These skills are, witnessing the influence of social media on American politics, now more important than ever. But it does mean that instead of teaching our same old bookish ways, we should shift our metaphors about how knowledge works.

An educated person in the screenish age must be able to navigate and utilize networks of interrelated bits of information, not just texts but blog posts, YouTube channels, and podcasts. In order to contribute to the American democratic society, the contemporary civic-minded American should understand how Wikipedia, snopes.com and Reddit contribute to public discourse, and how 4chan and related sites seek to manipulate it.

Consider critical thinking as an example. Most actual critical thinking instruction focuses on classic textual fallacies, including reliability of experts. The newspaper opinion editorial is the typical example of public argumentation. Indeed, the Ennis-Wier critical thinking essay test (Ennis & Wier, 1995) asks students to analyze a fictional op-ed, and most of the "make-an-argument" and "break-an-argument" tasks in the Collegiate Learning Assessment (CLA) and the post-2016 version of the Student Aptitude Test (SAT) are framed in similar ways. Critical thinking about texts requires validating sources and watching for distractions, non-sequiturs, and equivocations. Critical thinking for the digital age is similar, requiring understanding photoshopped images, deep fakes, and Russian trolls.

3. Changing skills
Information in the digital age is multi-modal, distributed, permanent, searchable and fast. And most of us were taught the skills to succeed in a world where information was textual, centralized, limited, browsable but not searchable, and slow. Academic skills must change.

Consider, by way of example, spelling. Recently, my mother found a box of class materials in her attic from when I was in 9th grade. It contained the results of my "career-placement" test. As a child, I was—and to be honest, still am—a horrible speller. So, while my placement test recorded a 99th percentile in "Abstract Reasoning," I scored only a 40th percentile in spelling. As a result, all academic jobs were precluded from my inventory of potential future careers. In 1988, spelling was a requirement for a life of letters.

When I entered college in 1992, spellcheck was something one ran after the paper was finished, as a final check before printing. The feedback loop between my misspelling and correction offered by spellcheck was too long to teach me anything. MS Word introduced auto-spellcheck sometime around 1993, and my spelling skills quickly improved.

By changing a skill that was considered a necessary requirement to one that could be achieved with the use of assistive technology, auto-spellcheck opened up academic careers to me and many like me. Today, requiring good spelling in a job description would be analogous to requiring perfect eyesight. Assistive technology is so ubiquitous that insisting on unassisted perfection would be prejudiced and unfair.

Digital technology will, I suspect, do the same to many of the skills we treat as essential to our fields today. Students in science, technology, engineering and math (in the US, these are identified with the acronym "STEM") fields are often required to memorize huge lists of terminology. Assistive technologies for memory may well make this skill obsolete. In the "screenish" age, the skills of organizing and labeling information are far more important than mnemonic devices and flashcards.

4. Transformation

If higher education can transform for the needs of this new era, we must, in the words of Aydelotte (1944), 'clarify its aims and improve its quality' (p. 7). The aim of education is always to prepare students for their era, not ours. And, as Henderson (1944) says, '[the student] has to be taught how to search for knowledge on his own, how to utilize this knowledge in the thinking process, and *then how to apply the results of this thinking in life's activities for some individual and social purpose'* (p. 113).

Our students need to be prepared for the brave new screenish world, not the bookish world for which we were trained. They need the skills necessary to contribute to knowledge in a global distributed informational environment. They need to view knowledge as a distributed, multi-modal network. Knowledge in this model is not something one owns or possesses but rather something shared that one can retrieve quickly when necessary.

Honors is already frequently structured to encourage students to learn on their own and to apply what they have learned. They are masters of the media of the screenish world. We are not. So be it. Let us use the honors tradition of allowing our students to shape their education to create a system of education for the future, not the past.

This will require a cultural change among faculty and the leaders of honors—but no more so than the one envisioned by Aydelotte and Henderson. Educate the students *individually* for *their* benefit and embrace the models of knowledge that are relevant in their world, not ours.

References

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