

Mike Wesch, Kansas State University





"A Vision of Students Today"

Shallow, or Just Different?

The impact of the digital age on our students' acquired learning styles and consequently on how we should teach them to become lawyers

Some established propositions about our brains

- Human brains are plastic that is, they change with experience
 - London cabbies' brains (pre-GPS) are unusually developed in "mapping" areas
 - Deprived of one sense (sight, hearing), brains rewire themselves to enlarge their capacity to respond to others
 - Changes can occur in relatively short order, as they have for London cabbies
- Different actions invoke different elements of brain structure
 - Intensely playing video games, for example, builds up brain areas different from those engaged by reading printed text
 - Reading on a computer screen builds up brain areas different from those engaged by reading printed text

Characteristics of the classical Socratic Method

- Before class, students read case reports with intensity, commit relevant information to memory, and attempt to integrate it with material already studied
- The professor explores a case in class in dialog with a particular student, requiring her agile manipulation of the information thus acquired
- All other students, similarly prepared, are mentally engaged in doing this
- From one perspective, this is a tightly hierarchical exercise, since the professor controls the conversation, while giving no answers
- From another, this is a form of student-centered education, as each student is responsible for her own synthetic efforts
- From no perspective is it a collective learning experience (although study groups may provide that).

Even before the digital age, the method was often degraded in practice

- Conveying doctrine, not analytic skill, was often seen as its central aim
- Many use it as a kind of lecture delivering information animated by questions, but with answers clearly supplied
- Commercial study aids weakened the need for student initiative and independent reading
- If testing is strongly oriented to showing doctrinal mastery (achievement learning, not deep learning), "study aids" acquire particular importance.

Digital age impacts on mental activities of "digital natives"

- At the end of the last decade, the average college grad had spent 5,000 hours reading; over 10,000 hours playing video games; 20,000 hours watching TV, read or sent 200,000 emails; spent 10,000 hours on cell phones; Americans logged 13,872,640,000 minutes on Facebook; and teens averaged 3,339 monthly text messages.
- In 2004, more than 8,000,000 Americans had a personal weblog or online diary.
- Since 1982, literary reading had declined by 28 % in 18-34 year-olds; only 16% read a daily newspaper.
- Relying on external memory impacts internal memory (cf. Socrates, Gutenberg), BUT
- They've acquired digital age habits of learning and research (Google search, hypertext, trial and error in games with intense attention to subtle signals, etc.), "adjusting or programming their brains to the speed, interactivity, and other factors in the games, much as ... literate man's brains were reprogrammed to deal with the invention of written language and reading." Mark Prensky, Digital Divide
- They have new techniques for interactive, collective learning (wikis, google docs, social media)

Nay-Sayers

- "Caesar conquered Gaul, Cleopatra seduced him, and Antony took his place after the assassination, but young Americans prefer to learn about one another." Marc Bauerlein, The Dumbest Generation 134
- "I'm not thinking the way I used to think ... [In reading] now my concentration starts to drift after two or three pages. ... The deep reading that used to come naturally has become a struggle. ... Our ability to interpret text, to make the rich mental connections that form when we read deeply and without distraction, remains largely disengaged." Nicholas Carr, Digital Divide.
- What makes iGen different? Growing up with a smartphone has affected nearly every aspect of their lives. They spend so much time on the internet, texting friends and on social media in the large surveys I analyzed for the book, an average of about six hours per day that they have less leisure time for everything else. Jean Twenge Professor of Psychology, San Diego State University, https://theconversation.com/how-the-smartphone-affected-an-entire-generation-of-kids

Optimists

- "There is no reason that a generation that can memorize over 100 Pokemon characters with all their characteristics, history and evolution can't learn the names, populations, capitals and relationships of all the 101 nations in the world [if we can learn to teach them as they have learned to learn]. ... One of the most interesting challenges ... in teaching Digital Natives is to ... invent ways to include reflection and critical thinking in the learning ... in the Digital Native language." Mark Prensky, Digital Divide.
- "[Today's educational model] was developed in the late nineteenth and early twentieth centuries to train farmers and shopkeepers to be factory workers and office managers. ... [W]e're still going to school the way we did in 1993, which is to say pretty much as we did in 1893. ... Students need new ways of integrating knowledge, including through reflection on why and what they are learning. They don't need more 'teaching to the test' ... [but] challenges that promote their success after graduation, when all the educational testing has stopped ... 'active learning.'" Cathy Davidson, The New Education

More Davidson

Recalling a time when math teachers banned electric calculators from their trigonometry classes, she writes "We are in this situation once again. ... [M]any educators and pundits have spent the last two decades banning ... laptops, tablets, and mobile phones from classrooms. ... For the sake of argument, let's say taking notes longhand is 'better" ... Even if that is true, what good is forbidding students from using laptops if everywhere else in their lives ... they are using some computer device to take notes. ... [They] carry smartphones more powerful than the IBM 360 mainframe computers that NASA used to put men on the moon. It's no surprise that a standard-issue lecture loses the competition for students' attention. ... The real reason for the new education is that we need more active, creative ways of teaching that put some of that computing power to good pedagogical use. It's odd and even irresponsible that formal education is the one place where we are not using the devices on which we do our learning all the rest of the time."

That we are *not* digital natives contributes. Our students are better at this technology than we are. That's no excuse for avoiding building student-centered active learning, "so that they understand, gain insight into, and maybe even exert more control over the technologies that have changed and sometimes dominated our lives and will do so even more in the future."

"Whenever I hear commentators say that smartphones and laptops have made students isolated and narcissistic, I know they haven't sat in on a class designed to encourage students to work together creatively."

THINK: You set a timer for 90 seconds (really, 90 seconds). And you pose a question. I might ask everyone to take 90 seconds to jot down three things (there are no right or wrong answers) they do in their classrooms to engage students.

PAIR: Once the timer sounds, students work in pairs for another 90 seconds in a very specific, ritualized way. One reads their card out loud; the other listens without interrupting. They then switch roles. Every class member thus gets one opportunity to speak uninterrupted and one opportunity to listen uninterrupted (an underdeveloped skill). This is the beginning of taking responsibility for your own learning. There is also something about the ritual of writing down, then reading to someone else, that allows the introvert to speak up in a way that avoids the panic of being called on and having to speak extemp before a group. After this, still within the 90 seconds, they work to edit, merge, or choose one thing they will "share," together, with the group.

SHARE: Now each pair reads rapidly what they came up with, sticking to what is on the card, and listening to all the responses without interruption. Take notes as students read and build discussion around those points. There is always something beyond what I would have come up with on my own, always a curve ball, a surprise. In a very large lecture class, every pair might write on a Google Doc.

A Davidson Think/Pair/Share Exercise

How might your faculty respond/is it responding to the challenges of teaching digital natives?

[Later this morning we'll consider how we might reshape legal education to accommodate the changes in the profession(s) for which we are preparing our students.]

- Laptops in the classroom?
- Promoting class wikis and other collaborative learning activities?
- Developing law-inflected video games?
- Flipped classroom, with collective time in problem-solving?
- Rewarding and challenging memory skills with closed book exams?
- Etc.

We need educators and administrators themselves committed to redesigning an ethical, democratic, pragmatic, forward-looking education, one that not only uses technology wisely and creatively but also understands its limits and its impacts and addresses its failings. We need individuals and institutions to work together to rejuvenate an antiquated system for our accelerating times and to ensure that the solutions we craft address the real problems rather than just generating new ones.

The lecture is broken, and so we must think of better ways to incorporate active learning into the classroom.

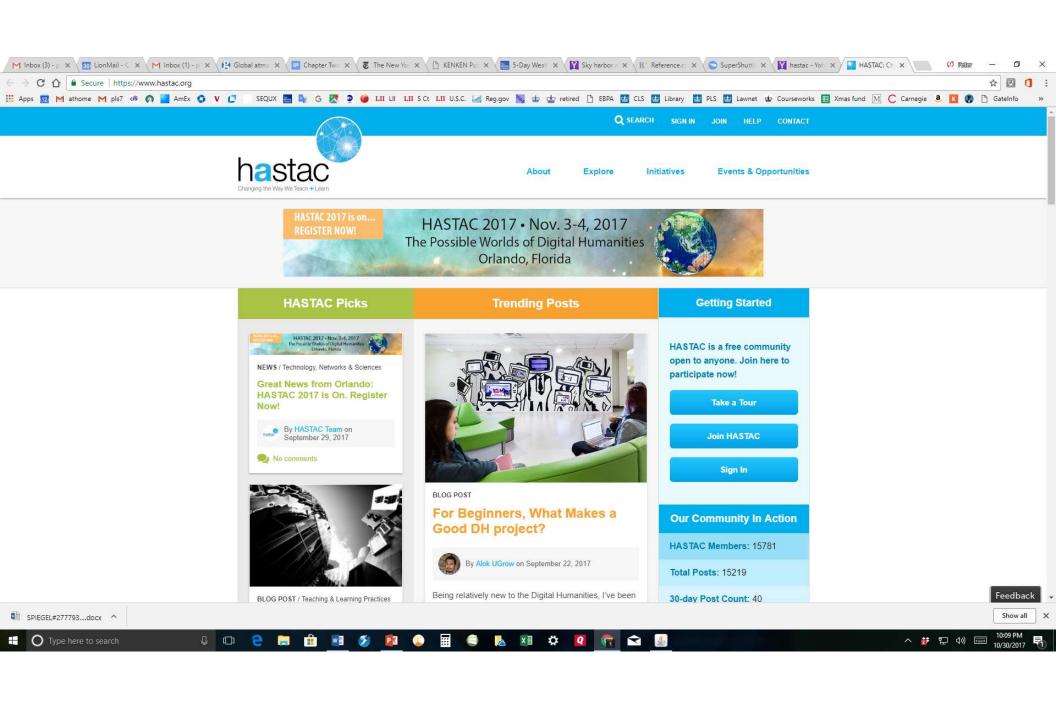
High-stakes end-of-semester summative, standardized testing is broken, and so we must design challenges that help students to build on what they know and learn from what they don't, growing stronger from each test instead of feeling defeated by an exam score that cannot capture growth or change.

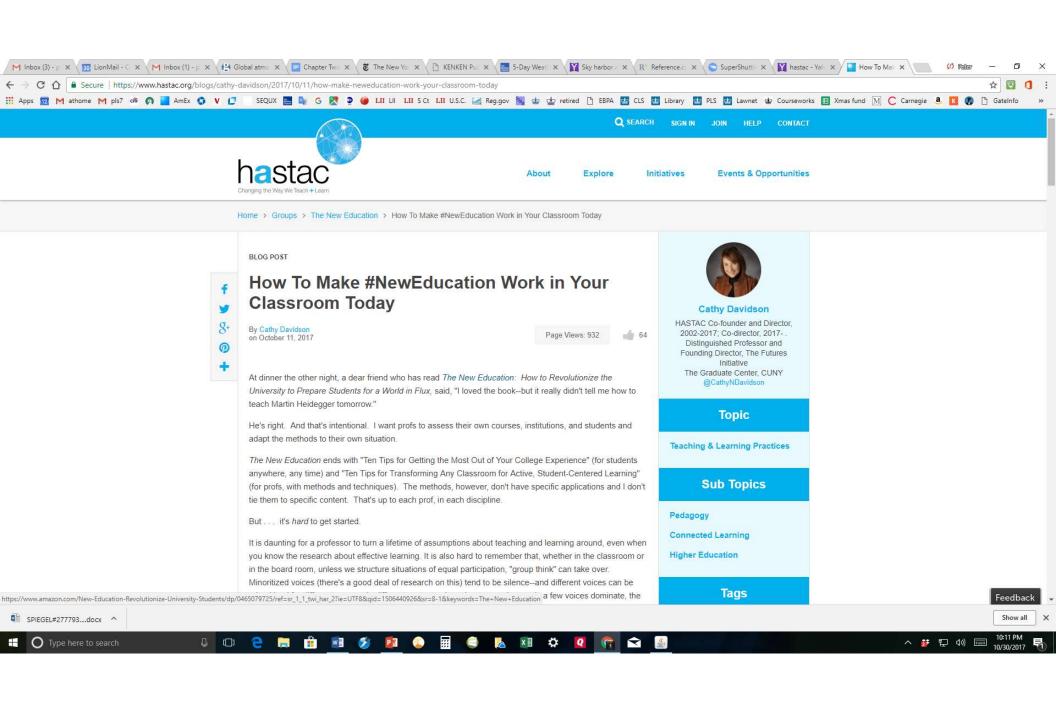
Cost is prohibitive, and so we must adopt new models of credit, such as the Australian graduated repayment model, and far better models of support, including renewed public

The Industrial-Education Complex (1860-1925)

From Scientific Labor Management to Scientific Learning Management (Primarily U.S.)

"...mandatory public secondary schooling. K-12 curriculum requirements. land grant universities. research universities. majors. minors. electives. divisions. certification. graduate school. collegiate law school. nursing school. graduate school of education. collegiate business school. degree requirements. credit hours. grades. statistics. standard deviation. spreadsheets. blueprints. return on equity (REO). punch clocks. IQ tests. multiple choice tests. college entrance exams. multiple choice entrance exams (SAT). Modern Language Association. Association of American Anthropologists. American Sociological Society. American Chemical Society. American Bar Association. American Historical Association. American Medical Association (incorporated). Association of American Universities. American Association of University Professors. tenure. sabbaticals. faculty pensions. school rankings. donor-named chairs. corporate-sponsorship of research. giftedness. learning disabilities. adolescence. F (failure)..."





School, verb.

