Some Thoughts on Undergraduate Education for Highly Selective Universities

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Columbia University
“In the beginning, there was Hopkins”

A Very Special Place: The First Major Research University (1876)

“It is one of the noblest duties of a university to advance knowledge, and to diffuse it not merely among those who can attend the daily lectures but far and wide.”

“Our history shows that our commitment to bold experimentation did not pass with our founding. It’s at the core of who we are.”

“Be vigorous, bold, and smart in championing the truths you have discovered and hold dear.”
Hopkins in historical and social context

- Roughly 7,000 colleges and universities in the United States
- Only somewhat over 100 highly intensive research universities
- Different strokes for different folks
- Curriculum should dovetail well with the identity of the university and represent a realization of its basic principles and goals
- Hopkins Mission Statement: “The mission of the Johns Hopkins University is to educate its students and cultivate for lifelong learning, to foster independent and original research, and to bring the benefits of discovery to the world”
Getting In and the Curriculum: Shaping a class

- Bringing the faculty back in
- The quest for the quirky and diversity of every kind
- How this is linked to the curriculum

Implications:

- Who studies history today?
- Foreign languages?
- Do the subalterns speak to our students?
- Is the C.P. Snow’s *Two Cultures* divide between the sciences and the humanities a myth or a reality today?
Identifying and courting the “Under-matched” and What Do We Really Mean By Diversity?

- Ethnic, racial, gender and economic diversity, but also talent diversity
- Women in science and mathematics
What do students know about the university that they have entered when they first walk on campus?

They are happy to have been admitted to one of the top schools in the nation.

But, what do they know about the rooms in the house they will live in for four years? Have they explored the house? How does the university work?
Teaching and Research Inextricably Connected

“I believe the faculty is at the heart of this place, and I believe that at the heart of the faculty in a place like Yale is the teaching function. All the research we want to do, all the obligations we must carry out as faculty, are in some sense nurtured by and versions of that first calling, which is to teach our students.”

- A stunning history

Woodrow Wilson  Thomas Hunt Morgan  Helen Taussing  Richard Axel  J.M. Coetzee

Does Hopkins today have a distinct undergraduate identity?
What distinguishes the Hopkins undergraduate? How do we know that the curriculum – both formal and informal – produces “value added”? How would you measure these effects?

Most universities are reluctant to try to articulate what exactly the purpose of the undergraduate curriculum is and how it advances the student beyond simple maturation effects.
The Andrew Delbanco Five

- A skeptical discontent with the present, informed by a sense of the past
- The ability to make connections among seemingly disparate phenomena
- Appreciation of the natural world, enhanced by knowledge of science and the arts
- A willingness to imagine experience from perspectives other than one’s own
- A sense of ethical responsibility
The Howard Gardner Six

- The opportunity to spend extended periods of time with scholars from different disciplines and perspectives
- The opportunity not only to master one subject area, one discipline, but also to sample areas of knowledge that broaden one’s perspective
- The opportunity to live in the proximity of peers who come from very different backgrounds and have different life experiences and aspirations
- The chance to receive intelligent, personalized feedback on work and on projects, with the opportunity for face-to-face, eyeball-to-eyeball discussions with teachers and peers
- The chance to participate in, and perhaps even initiate, activities that are fun, activities from which one can learn, and activities that serve the larger community
- The creation and maintenance of a community that embodies the best of human values – intellectual, social, and ethical
The Cole Additions

- Students must learn to think for themselves in a highly independent and critical way.
- Students should graduate with a clear sense of what they believe the concepts of justice and meritocracy mean and what would make for a just society.
- There should be a greater integration of the curriculum across fields.
- Students should read and analyze texts not only in their own tradition, but should become familiar with works produced by other societies.
- More of the undergraduate curriculum should be active rather than passive.
- Every student should be familiar with the core values of their institution.
“The modern view sees the liberal arts as, literally, liberating, as freeing the mind from unexamined opinions and assumptions to think independently and exercise critical judgment, to question conventional doctrines and inherited claims to truth, to gain some skill in analysis and some capacity to deal with complexity, to embrace a certain skepticism in the face of dogma, and to be open to many points of view. These ideas came increasingly to shape the directions of liberal education in the universities and colleges.”
The Chicago Principles: Do They Apply to Hopkins? Should They?

- The Kalven Committee Report (1967)

“The mission of the university is the discovery, improvement and dissemination of knowledge... A university faithful to its mission will provide enduring challenges to social values, policies, practices, and institutions. By design and by effect, it is the institution which creates discontent with the existing social arrangements and proposes new ones. In brief, a good university, like Socrates, will be upsetting.”

- The Stone Committee Report (2016)

“... it is not the proper role of the University to attempt to shield individuals from ideas and opinions they find unwelcome, disagreeable, or even deeply offensive.”

“In a word, the University’s fundamental commitment is to the principle that debate or deliberation may not be suppressed because the ideas put forth are thought by some or even by most members of the University community to be offensive, unwise, immoral, or wrong-headed...”
■ Free Expression on college campuses today

Safe spaces, Trigger warnings, and micro-aggressions

The Perspectives of the “Insider” and “Outsider”

Todd Gitlin: “a plague of hypersensitivity”?
Alternative Forms of General Education or Core Curriculum:
no single “right way” of constructing an undergraduate curriculum

■ Columbia College (1919) core curriculum: A product of WWI

Contemporary Civilization (2 sem.); Literature Humanities (2 sem.); University Writing; Language (4 sem);
Art Humanities; Music Humanities; Frontiers of Science (2 sem.)

■ University of Chicago’s Core: Hutchins and Mortimer Adler | Small seminars | Original sources

Humanities, Civilization Studies, and Arts (6 quarter courses); Natural and Mathematical Sciences (6 quarter courses); Social Sciences (3 quarter courses)

■ Brown and the creation of one’s own program “freedom with responsibility”
An alternative core curriculum:

less on content more on thematics

- Nicholas Lemann’s 8 hypothetical one-semester courses

- Information Acquisition
- Interpretation
- Perspective
- Thinking in Time
- Cause and Effect
- Numeracy
- The Language of Form
- Argument

- History and Integration: Our Responsibility to Students in a Post-Truth, Fake News World
Familiarity with humanistic questions allows students to confront questions of the following kind as they mature into adulthood

- What are the elements of a just society?
- What are the personal elements of the examined life – and what, for the individual, represents a full and good life?
- What is the appropriate level of inequality of income and wealth in a society?
- Should the United States conduct moral wars?
- What do we mean by freedom – individual or collective? What is the distinction, if any, between freedom and liberty?
- How can our sense of self-identity be expanded and intensified by knowledge of the customs of other cultures?
- How are our experiences enhanced through a deeper understanding of the languages, music, art of different historical periods drawn from different societies and cultures?
Extrinsic value

■ Often resisted by humanists, but the extrinsic value of the humanities has become essential

  • Humanities as attached to the deep ethical and moral issues that surround science
  • Use of the humanities to prevent wars

“More powerfully than other disciplinary domains, knowledge of the historical past and the humanities help to frame for our students what it means to belong to a nation, committed by design to freedom and the rule of law and what it can mean to commit ourselves to the maintenance of humane and tolerant civil societies throughout the world.”

Gabrielle Spiegel
“The Organized Dilettante”
The “Cole” alternative strategy for undergraduate education

- Searching for interactions with the great minds at a special university
  - Downplay the idea of the major and worse the double major for undergraduates

- Cole as an “organized dilettante”
  - Courses with Lionel Thrilling, Meyer Schapiro, Richard Hofstadter, Robert Merton, Daniel Bell, Jacob Taubes, Polykarp Kush

A Curriculum Without Boarders and Without Age Classifications

- Moving through the curriculum at the pace of your own ability, not based on what others deem as appropriate
- Achieved to a limited degree: But we make this too hard for students of exceptional talent and motivation
“The wish is parent to the thought, and that is why nothing is easier than self-deceit. For what each person wishes, that they also believe to be true”

“The first principle is that you must not fool yourself – and you are the easiest person to fool.”

Demosthenes

Richard Feynman, speaking about scientific explorations

The Demosthenes-Feynman Trap

“Without effort, often purposeful effort, we are all caught in this Demosthenes-Feynman trap.” Robert Zimmer
E. M. Forester, *Howard’s End*, “Only Connect”

- **Silos and connections** – the multidisciplinary imperative for solving complex problems; multidisciplinary spaces

- **Illustrations**
  - The Earth Institute at Columbia. Problems of economic development; global climate change; sustainability – Jeffery Sachs
  - Problems of discovering cures for diseases: Bonnie Bassler; Nancy Wexler cases
  - BioX and the dSchool at Stanford; Biodesign Center at ASU
Creating Academic Leagues – Compounding Excellence

- What technology does make possible for the curriculum for faculty and undergraduate students
- *De facto* rather than *de jure* mergers at different levels of specificity: the Columbia-Princeton failed plan for history
- Existence proofs: Earth League
- Creating knowledge communities for students
The Role of Technology in Undergraduate Education

Sebastian Thrun own skepticism about his invention and work on Udacity:
“We were on the front pages of newspapers and magazines, and at the same time, I was realizing, we don’t educate people as others wished, or as I wished. We have a lousy product… It was a painful moment.”

What is technology best for when we are dealing with highly selective colleges and universities?

Flipped classrooms the end of lectures of 500 students, new business model
Distance Learning
Limits at places like Hopkins

- Best for teaching material where the questions have correct answers at the back of the book
- MOCs will not meet the needs of the most creative and advanced students and faculty

What makes for a creative scientist and scholar?

- The ability to ask and then pursue questions for which we do not have answers and to collaborate with others to find possible solutions
- To accept failure as a way station to success
Rubbing Minds Against Minds: The Non-Curricula Curriculum

Students learn more after 5 pm – after the professors have gone home – than they do in the classroom.

How do we foster these kinds of experiences?

- The Rabi type programs;
- The eating experience
- The residence hall experience
- The hundreds of clubs and organizations that students belong to
- Collaborative research experiences
- Athletics: team and informal
- Experiences at local schools and other organizations involving volunteering work
- CU’s Passport to New York Program