

Liberal Arts Education in the 21st Century: The Core Curriculum at NYU Shanghai

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Good Afternoon.

I am delighted to return once again to Fudan University, a university that has stood for more than a century as a symbol of excellence in Chinese higher education. Each time I return, I have the opportunity to make new friends, and to encounter new ideas. I am delighted that this afternoon I will once again be able to do both.

This afternoon, I will be sharing my own beliefs about the evolution of a liberal arts education to keep up with the changing contexts in which students will spend their adult lives. I will be discussing the qualities of a liberal education that, I believe, continue to hold persistent value in the twenty-first century. And I will be discussing certain qualities that I believe require greater emphasis in today's world. Finally, I will be discussing how we implement these ideas at NYU Shanghai.

Ever since the nineteenth century it has been an article of faith that great universities do three things. They teach, they do research, and they serve the public. The three are interconnected. Doing each one well can strengthen the way in which a university carries out the other two responsibilities. In constructing a university, it is important to be constantly looking at the institution from all three perspectives, in order to ensure that the institution retains a healthy balance across its objectives.

This afternoon, however, I am going to focus in on one perspective – the teaching perspective – and refer to the other two only insofar as they

directly bear on the quality of education that we are offering our students.

Moreover, this afternoon I am going to focus in only one aspect of our teaching – our teaching of undergraduate students. Of course we teach much more than undergraduates. We teach graduate students and professional students and students who are not even pursuing degrees. Today we must all be lifelong learners, and great universities have a role to play in enabling us to do so in maximally effective and efficient ways.

But today I want to focus on undergraduate education: the education we offer to students fresh out of high school that culminates in a bachelors degree.

At the outset it is useful to stress the difference between a high quality bachelors education and a high quality vocational education. A high quality vocational education is like a laser. It has a very bright, very narrow focus. It helps students to develop skills that are marketable immediately and will have value for the next ten years.

A high quality bachelors education has a much broader focus, and a much longer time horizon. Rather than being focused only on immediately marketable skills, a high quality bachelors education is designed to help students prepare themselves for adult lives of satisfaction and contribution. Personal satisfaction for themselves, and contribution to the satisfactions of others, both inside and outside the workplace.

Moreover, the time horizon is a lifetime. Today we expect most of our undergraduate students to live for at least another six decades after they complete their degree. The value of a bachelors education should not expire after a decade; it should never expire.

A world-class bachelors education provides students with the intellectual scaffolding they need to construct their entire adult lives. That scaffolding has three essential dimensions: knowledge, skills, and virtues.

Each of those three dimensions – knowledge, skills, and virtues – incorporates several elements. Some of those elements are enduring; they are the same for today's generation as they were when I went to college 40 years ago.

But other elements of knowledge, skill, and virtue evolve with the times. Part of what makes our current age so exciting is the way in which it has come to demand a broader set of qualities than have ever been demanded before. Two forces have completely redefined life in the twentieth century – globalization and information technology. Those two forces have reshaped each of the three dimensions of a world-class bachelors education.

Let me start with knowledge.

What we call knowledge is a sophisticated understanding of the world we inhabit. Such a sophisticated understanding includes statements of fact, together with statements of how much confidence we have that those so-called “facts” are really true. I “know” that the earth is pretty round, and my confidence level is close to 100%. I also “know” that our universe contains black holes, but my confidence level is much lower than 100% because that knowledge is based much more on trust in authority than it is on personal observation.

We acquire knowledge by applying powers of critical analysis to two sources of data – our own direct perceptions of the world, together with accounts of that world that we receive from others. Critical analysis requires that we see how each source of data can be flawed. Our own perceptions can be erroneous due to perceptual illusions or our own cognitive biases. The statements of others can be erroneous because the speaker could be sincerely wrong, or because the speaker wishes to mislead. We build our knowledge of the world by steadily accumulating data and forming tentative beliefs, even as we continue to test those beliefs against further data.

When we are young children, we are often taught things as “facts” and we are expected to accept that knowledge as absolutely certain. But to live lives of satisfaction and contribution as adults, we have to adjust, to understand that all our knowledge is tentative and might ultimately be proved wrong. We have to be sophisticated about what things we believe most strongly to be true, and what things we suspect, maybe, might possibly be true.

To be effective in today's world, we need to be prepared to discuss our "knowledge" openly with other, well-educated people who will engage our ideas attentively but critically. As children, we were allowed to say things like, "here is what I feel, and you have to respect my feelings." But if we want to be effective as adults, we must be able to describe the sources of our feelings – the first-hand perceptions we have accumulated, the second-hand accounts we have received from others, and the way that we have assembled our perceptions and the statements of others into things we call "knowledge."

To be properly educated for life as a twenty-first century adult, I believe it is necessary to acquire more kinds of knowledge, in more domains of knowledge, than one had to acquire to be properly educated for life as a twentieth century adult. That is because the pace of life is faster, the power of technology is stronger, and the community of people we interact with is much larger today than it was last century.

What domains of knowledge are especially important for lives of satisfaction and contribution today? Different people will give you different lists, but here are my top three:

1. I think it is important to have a healthy knowledge of the historical development of humanity's most influential ideas – especially in the natural sciences, in moral and political philosophy, and in economics.
2. I also think it is important to have a healthy knowledge of the history of cultural expression through literature, art, and music.
3. I also think it is important to have a healthy knowledge of global political history.

In each of these domains of knowledge, globalization has brought about enormous changes. Forty years ago, people could reasonably expect to live full and happy adult lives if they developed their knowledge in these areas only from the perspective of their own country, but that is no longer true. Today, a sophisticated knowledge in each of these areas entails an awareness of how different countries and different cultures have approached them – how their perceptions have been similar, and how they have been different. Usually that awareness will mean that we

can say we “believe” more things to be true than we might have believed before, but our beliefs are less confident, less certain, more tentative than they might have been in a simpler age.

So much for knowledge. What about the skills that are now needed if one wants to lead a life of satisfaction and contribution?

Knowledge is something inside our heads – ideas. Skills involve more than ideas; they involve action. A skill is an ability to perform an act – to project ourselves into the world – in a way that others value. Sometimes the exercise of a skill involves reacting to information or other stimuli that come to us from our environment. Sometimes the exercise of a skill involves initiating an action on our own.

What are the essential skills for a life of satisfaction and contribution in today’s world? Once again, different people will give you different lists, but here are my top five:

1. Rigorous analysis. One needs to be able to process information with logic and discipline, and one needs to be able to present ideas to others in a logical and disciplined manner.

2. Numeracy. One needs to be able to apply the techniques of mathematics, in order to derive maximum understanding from quantitative information.

3. Computer literacy. One needs to be able to apply the tools of modern information technology.

4. Multilingualism. One needs to become fluent in more than one language, so that one can appreciate how different languages might cause people to think and believe different things.

5. Cross-cultural effectiveness. I will take a few minutes to elaborate on this particular skill because in many ways it is the most important.

The technologies of globalization have enabled us to live much more interesting lives. Today we are connected to all humanity, and we have the opportunity to work in cooperation with people who have had very different experiences, so that we can all understand things more pro-

foundly than would have been possible if we were limited to working with people just like ourselves.

At the same time, however, we have had to come face to face (literally) with two realities that we did not appreciate before. The first reality is that all humans are similar to one another, no matter where they were born. All humans value happiness and love and respect. All humans avoid pain. But the second reality is that people who were raised in different cultures understand those values in very different ways. And those differences can lead people to misunderstand one another very badly. They can lead a person to think another person was trying to insult them when in fact the other person was trying to show them respect. They can lead a person to think another person is stupid when in fact the other person is very wise indeed.

During the past thirty years, a great deal of wonderful writing has been done about the nature of cultural differences. Some of the most interesting writing has discussed the way that the differences seem to be largest between East and West, and may be the very largest between China and the United States. People who are biologically identical but who grow up in different societies learn to see the world in strikingly different ways.

I would commend to you two different books on this subject. The first is now ten years old, and it is called *The Geography of Thought*, by the psychologist Richard Nisbett. It provides a very accessible overview of the scientific evidence demonstrating that people who grow up in America and people who grow up in China really are taught to see the world in different ways. Chinese are taught to study a scene; Americans are taught to study the primary objects in a scene. Chinese are taught to study relationships; Americans are taught to study key points. Chinese are taught to think of themselves as connected to their environment, as interdependent with other people; Americans are taught to think of themselves as independent actors.

The second book, published last year, is called *Tiger Writing*, by Gish Jen. Gish Jen's mother is from Shanghai, and her father is from Jiangsu Province. They each moved to America in the 1940's and met each other

in New York. Their daughter Gish became a writer of fiction, and her writing has won almost every literary prize that exists. In recent years she has been frequently described as the Great American Novelist.

Her book *Tiger Writing* is not a work of fiction. It is a collection of speeches she gave at Harvard last year about cultural differences and the way her Chinese identity and her American identity have each affected the way she writes. She connects Nisbett's writing with her own father's autobiography, using him as an example of how a Chinese man might think of his own life very differently from the way an American man would. And she talks about how her own writing combines elements of the American identity with elements of her parents' Chinese identity.

Writers like Nisbett and Jen illuminate how much we can gain when people from different cultures work together, but those benefits are only available if the groups include people whom I describe as "bridge people" – people who are skilled at recognizing cross-cultural misunderstandings and helping the group to get past it.

An effective bridge person must have three qualities. He or she must be able to see the world from his or her own culture's perspective and also from that of a different culture. He or she must be able to engage sympathetically with all perspectives, without rushing to say that one perspective is right and the other perspective is wrong. And finally he or she must be able to explain how the cross-cultural misunderstanding occurred in a way that allows everyone to appreciate it and work towards a solution without feeling that they have lost face.

In addition to knowledge and skills, a high quality undergraduate education is also about the development of certain virtues. How are virtues different from knowledge and skills, and what virtues are key to a life of satisfaction and contribution?

Knowledge is primarily internal; it involves the ideas we hold inside our heads. Skills are primarily external; they involve the capacity to act in ways that others appreciate. Virtues are both internal and external; they are qualities of character that help us feel happy inside with who we are and that lead others to view us as good people.

What are the essential virtues for a life of satisfaction and contribution in today's world? Once again, different people will give you different lists, but here are my top six:

1. Empathy. One needs to develop the ability to see through the eyes of others, to stand in their shoes, to feel their joy as well as their pain.

2. Humility. One needs to appreciate one's own fallibility, how easy it is to be wrong, even when you are certain you are right.

3. Generosity of spirit. One needs to give others permission to be imperfect, to make mistakes, without feeling that one is somehow a superior being.

4. Courage. One needs to be brave enough to make mistakes, brave enough to make a fool of oneself in front of others, brave enough to do the right thing even if one knows others will laugh.

5. Authenticity. One needs to be honest, to speak in one's own true voice, to overcome the natural human impulse to say things that are untrue because one fears the consequences of speaking truly.

6. Curiosity. One needs to develop one's hunger for learning, to overcome human nature, which is always telling us we have learned enough and can take a rest.

NYU Shanghai has been designed from the ground up to help every single student acquire the knowledge, master the skills, and develop the virtues that will matter for their twenty-first century adult lives. It does so in a way that is similar to, but at the same time very different from, other great universities that are located in the United States.

The traditional response of American universities to globalization has been to bring international students to their campuses and to allow their American students to spend a semester overseas at another university. A few ambitious schools went further and set up special-purpose sites overseas, but no top university went so far as to establish a full-blown comprehensive campus outside the United States, offering a complete undergraduate liberal arts education in the context of a comprehensive research university.

That is, no university did this until NYU. In response to the forces of globalization and technology, NYU has become the first university to redefine itself as a network. NYU is no longer the university of New York; now it is the university of the world's most important cities. NYU Shanghai builds on NYU's global network structure to provide a twenty-first century liberal education. It does so through its structure, through its curriculum, and through its pedagogy.

The structure of NYU Shanghai is defined significantly by the composition of our student body. At NYU Shanghai, half our students are from mainland China and the other half come from 50 other countries around the world. Every Chinese student has an international roommate, and vice versa. Every class, every club, every activity is multicultural. We force our students to encounter the complexities of cultural similarity and cultural difference every day. They learn about the skills of bridge people, and they practice those skills over and over again.

Our structure also includes the locations where our students study. NYU Shanghai students spend their first two years here in Shanghai, on our campus in Lujiazui. Then, during their junior year, they circulate. NYU has campuses in 14 cities that are recognized around the world as points of entry into their region. The biggest is New York. Abu Dhabi is comparable in size to Shanghai. But our students can also go to places like London and Paris and Prague and Buenos Aires and Tel Aviv and Accra. By living in these cities as students rather than merely visiting as tourists, they will develop a deeper appreciation for the architectures, the urban designs, the languages, and the flavors that influence the people who inhabit them.

In addition to its structure, NYU Shanghai's core curriculum is also designed in ways that promote the development of twenty-first-century knowledge, skills, and virtues.

Sometimes students come to NYU Shanghai with the mistaken belief that a "liberal education" is only about freedom of choice.

To be sure, a liberal education is partly about choice. Students should be able to choose what major they want to pursue from across the humanities, social sciences, natural sciences, engineering, and business.

But more importantly than choice, a liberal education is also about requirements. To be liberally educated, all our students must complete a set of five core curricular requirements. The point of the core curriculum is to give our students breadth as well as depth, to stretch their minds in ways that a focus on one major would not.

Our core curriculum has five key required elements.

The first key element is a sequence of courses that we call “social and cultural foundations.” These courses include a first-year course that I teach called “Global Perspectives on Society” and a second-year course called “Global Perspectives on Culture.” In my course, students read great works of political and moral philosophy from writers such as Confucius and Mencius, Kant and Bentham, Adam Smith and Karl Marx. In Global Perspectives on Culture, students are exposed to literature and art and music from across time and space. In all cases, there is an emphasis on China, and China’s relationship with the rest of the world throughout history.

The second key element is mathematics. All students – including our humanities majors – must develop their proficiency in mathematics. And for some majors the requirements are of course more stringent.

The third key element is science. Once again, all students – including our humanists – must take two science courses before graduation. But students who want to major in the natural sciences are required to take an innovative six-course cluster of courses called “Foundations of Science” that teaches chemistry, physics, and biology in an integrated manner.

The fourth key element is spoken language. All our classes are taught in English, but all our international students are required to become proficient in spoken Chinese. We need all our students to be multilingual.

The fifth key element is written English. Throughout the first two years, all students are required to take a series of “writing in the disciplines” courses that are linked to their substantive core courses, so that they become proficient in different styles of writing in the English language, including description and argumentation.

The structure of NYU Shanghai and the curriculum of NYU Shanghai help our students develop twenty-first century knowledge, skills, and virtues. But so also does our approach to pedagogy.

The essence of an NYU Shanghai education is what might be called “active learning.” We are not interested in transmitting our wisdom as teachers into the minds of our students. Rather, our goal is to help our students to develop their own capacities to acquire information from many sources, to synthesize that information rigorously, to analyze it critically, and to deploy it effectively. We want our students to develop their capacities for creative, original thought, their abilities to take risks, to make mistakes, to recognize their own mistakes and to go forward. We want our students to be skillful working on their own and to be skillful working in teams, where their mission is not to follow instructions but rather to develop something new.

Our pedagogy – our manner of teaching – is oriented towards helping our students be active learners. Even in my large class of 300 students I do not simply give lectures. I ask questions. We use clicker technology so that I can ask questions of the whole group, and I also call on individual students with questions, using a teaching technique known as the Socratic method.

In writing classes we reward students for original, rigorous thought that is authentically their own. In science classes we reward students for original hypotheses that they then test rigorously.

And when it comes to pedagogy, we are a school that favors experimentation with new technologies. Some of us are experimenting with so-called flipped classrooms. Some of us – including me – are using a software product called “For Class” that asks students questions about their homework reading while they are doing it, before class, so that the class itself can be much more about their understandings of the assignments.

Let me conclude with one final observation about what we are doing at NYU Shanghai. Our mission is not to offer the perfect liberal arts education. We do not believe that our mission is to create a way of teaching undergraduates that should then be implemented in every university

around the world. Rather, we believe that higher education develops and flourishes best when there is variety, with different schools taking different thoughtful approaches to the project of undergraduate education.

Our mission is, instead, to contribute to the ongoing development of university education. We are trying our best to be thoughtful about the knowledge, skills, and virtues our students need if they are to have adult lives filled with satisfaction and contribution. And we are trying our best to create an approach to nurturing those qualities that will prove beneficial to our students, and interesting to all those who are fellow participants in the global project of liberal education.