A HUMANISTIC UNIVERSITY EDUCATION FOR ALL STUDENTS

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A good university is not the same as a vocational training institute. In vocational training one learns technical skills that hopefully will enable one to get a good job. Perhaps these include some "soft skills" — psychology and management — that make it possible to supervise employees or handle a company's customers. In contrast, the word "university" comes from "universal knowledge," and above all that means humanistic studies. History, literature, foreign languages, and the arts are of central importance in a high-quality university education.

The notion of "liberal arts," coming from the Latin word *liberalis*, goes back to ancient times, when it denoted the general knowledge that a free person must have in order to participate actively in society. In modern times the term refers more generally to subjects that are not taught as part of professional, technical, or vocational education. "Liberal arts" may include social studies and basic sciences, but the centerpiece of the liberal arts is the humanities.

There are several advantages of a liberal arts education over a narrow vocationalism. In the first place, the civic life of the country depends upon a broadly informed citizenry. This is even more true now than it was in antiquity. The problems we face in the 21st century — climate change, environmental degradation, growing inequality between rich and poor, international tensions and the threat of war — are difficult and complex. A government is more likely to obtain popular support for farsighted and sophisticated responses to these challenges if the population is well-educated. In contrast, people who are ignorant of history and culture are likely to support extremist and bellicose views that they pick up from the Internet and social media.

In the second place, a liberal arts education benefits the whole person, preparing her/him for a well-rounded life. Vocational training prepares the student only to be a small cog in a big corporate machine or bureaucracy.

A third reason — often overlooked — is that for scientific and technical people as much as for other future professionals a broad background in the humanities is likely to give them a tremendous advantage in their career. With few exceptions, in order to have an impact, people in the STEM professions (science, technology, engineering, and mathematics) must be able to write effectively and creatively. Let me illustrate by my own field, mathematics applied to information security. Forty years ago, at the dawn of the computer age, the IEEE published an article titled "New Directions in Cryptography" that is arguably the most important paper in the history of cryptography. Written by two broadly-educated computer scientists, Whit Diffie and Martin Hellman, the article had an impact that was due not primarily to its technical content (the Diffie–Hellman key exchange), impressive though that was, but rather to the authors' ability to articulate a vision for the future Internet that can still be read today as a guide to some basic principles of cybersecurity.

Society needs people who can translate the language of science and technology into a language that can be understood by the general public and by policy-makers. For example, experts in data security must advise governments on necessary measures to protect national security. In addition, people who can communicate effectively are valuable members of an interdisciplinary team.

Scientists who want to present their work at a major conference and publish it in a leading journal should know how to write well. The most important parts of our publications are the abstract and introduction, since that's all that most people read and what they usually judge us by. A good introduction is clear and engaging for nonspecialists, and it tells a narrative that proceeds from statement of the problem, explanation of its importance, and summary of prior work to an overview of the paper's contributions and the challenges for future research and development. Similarly, the success of a grant application or an executive summary of a project report depends on facility at conveying one's technical accomplishments in a language that gives context, history, and direction, and does not lose sight of the forest for the trees.

The common element in all of this is the ability to tell a story. Contrary to popular misconceptions about science and technology, a good piece of technical work is not a disembodied sequence of formulas and calculations, but rather is part of a narrative that has a long plot line and a large cast of characters.

Story-telling is a fundamental part of being human, from the time we are little children. It is also a central part of many cultural traditions.

How can a student learn to tell a story well? First and foremost, by reading great literature. In my own case my debt of gratitude is first of all to my excellent secondary school English teachers, and secondly to Dostoevsky, with whom I was infatuated when I was young. Another way students can learn how to analyze context and trace the development of an idea is through the study of history. And thirdly, one of the most effective ways to develop a breadth of perspective and appreciation for the nuances of communication is through the study of foreign languages and literatures. (I double-majored in mathematics and Russian language and literature when I was an undergraduate.)

American universities have a long tradition of liberal arts education. However, the general level of undergraduate education in the U.S. has deteriorated in recent years, for several reasons. Foreign language requirements have beem reduced or abolished — to the extent that most American university graduates know only English. Moreover, they do not even know their own written language well, since writing is poorly taught in both secondary schools and universities.

Many professors have complained about the "corporatization" of their universities. The term "corporatization" means that the administration puts financial calculations first. Departments that get government or industrial contracts — and this generally excludes liberal arts departments — are supported. Financial cutbacks have especially targeted areas of the university that do not bring immediate practical benefit in the commercial sector. A large proportion of university budgets now go to support a huge administrative bureaucracy and athletic programs rather than core academic needs. University administrators increasingly look for ways to "educate on the cheap" — through online courses, the use of post-graduate students and adjuncts rather than regular faculty, and the tendency to freely dispense university course credit for courses taken at the secondary level or in community colleges. In addition, professors are under pressure to give higher marks and to make their courses easier. All of this has resulted in a general decline in humanities education. Nevertheless, despite all these negative trends in American education, our best students at our best universities are still getting a good education in the humanities.

What are the markers of a high level of general education? Well-educated university graduates in Vietnam should, besides English and Vietnamese, know at least one other language and literary tradition — most likely either French, Spanish, Russian, Mandarin Chinese, or Arabic (which, along with English, are the six United Nations languages). They should also be knowledgeable about the cultural traditions and the history of their country, both ancient and modern, and should have a deep appreciation of the role of Vietnam in world history.

Historical knowledge is crucial for a well-educated citizenry. I am disturbed when I hear Americans (and some Vietnamese) say that Vietnam should "think only about the future and not the past." Ignorance of the past is not something to be proud of or to be encouraged. Historical events and traditions provide valuable lessons and a type of guidance for the future. In some cases they can inspire future generations.

For example, the epic battle of Điện Biên Phủ 64 years ago was a signature event of the 20th century — the beginning of the end of European colonialism. During the American War, the evacuation of university studies to the forests of Thái Nguyên province was an achievement unparalleled in world history. Never before had an impoverished developing country been able to maintain a high level of university studies in evacuation while the capital was being bombed by a military super-power. In my opinion, it would be fitting some day for both of these historic places — Điện Biên Phủ and the location of Hanoi University in evacuation — to become UNESCO World Heritage Sites.

Young people who are well-educated in the arts, history, literature, and foreign languages will be able to preserve the traditions of their country. They will not be easily seduced by the false values of excessive materialism and consumerism that are imported from other countries. They will be able to lead their country along its own independent path.

Let me conclude with a warning. The term "liberal arts" has become a buzzword that is often used to advertise the so-called "universities" that are sprouting like mushrooms in many developing countries, including Vietnam. This claim is especially common among the "universities" that have U.S. sponsorship, such as Fulbright University Vietnam. Do not be misled by advertising hype. Before accepting the claim that "we provide a liberal arts education," ask several questions. How many faculty have PhD's in humanities subjects such as history, literature, and the arts? What type of library does the institution have? What courses are offered in the history and literature of Vietnam and other countries? What facilities does it have for the studio arts? Are the top administrators true intellectuals with scholarly publications, or are they businesspeople and politicians? In most cases the answers to these questions will reveal that the institutions are not true universities, and are not capable of providing a liberal arts education.

The key to improving higher education for young people in Vietnam lies not in the growth of foreign universities or private ones, but rather in the growth and improvement of the Vietnamese national and provincial universities. With government support, those universities can offer not only training that prepares students for employment, but also a true liberal arts education.