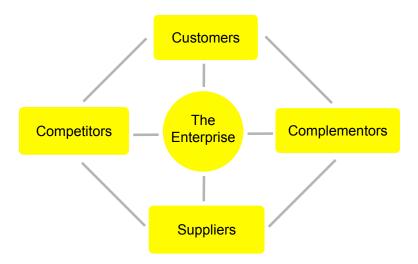
Different Pictures of the University Adam Brandenburger and Jessy Hsieh Version 12/27/14

1. Overview

We envisage the university as at the center of a network of relationships with various constituencies and parties. Each of these constituencies and parties can be classified as supplier, customer, competitor, or complementor (or some combination of these) to the university. Different ways of classifying the constituencies and parties both reflect and imply very different conceptions of what the university is and of how it should manage itself.

2. An Enterprise as a Network

We will picture an enterprise --- which might be a university --- in the form of a Value Net. 1



Along the vertical axis of the diagram are the enterprise and its relationships with owners of inputs or resources channeled to the enterprise ("suppliers") and users of outputs or products and services created by the enterprise ("customers"). Along the horizontal axis are the competitors to the enterprise --- these can be competitors with respect to products and services or with respect to resources --- and the complementors to the enterprise. Complementors are players who provide complementary products or services, that is, products or services that increase the value of those offered by the enterprise. Complementors can also be players who offer complementary uses of resources.

3. NYU in a Value Net

The exercise of depicting NYU in the form of a Value Net raises some basic and important questions. Who are its suppliers? Who are its customers? What is the competition? Is there a significant role for complementors? Are the various constituencies and parties shifting around in the Value Net?

¹ The Value Net concept is from *Co-opetition*, by Adam Brandenburger and Barry Nalebuff, Doubleday, 1996.

4. Suppliers Become Complementors (Too)

A location, intellectual capital, and administrative capital are some of the principal inputs to the NYU enterprise.

It is well established that NYU's location affords it valuable "geographic and attitudinal endowments." This is a strong argument for viewing location not just as an input, but as a key complement to NYU. Students experience jointly the more structured and less structured forms of education that come, respectively, from inside and outside the university proper.

There is an important lesson from numerous examples of complementarity in the high-tech world (hardware and software constitute the canonical example). **To turn potential complementarity into actual complementarity, links between the components have to be consciously built and managed.**

In the case of NYU and New York, this points to the importance of creating education that deliberately designs in opportunities to learn in the city as well as within the university. Building courses and programs this way marks a significant departure from the traditional way that such activities are undertaken at a university.

With the advent of the Global Network University, the issue of complementarity becomes even more important. NYU New York, NYU Abu Dhabi, and NYU Shanghai are potential complementors of a new and very powerful kind. But there are at least three different ways in which this potential complementarity might be handled. One way is to take a largely passive view towards complementarity, in which case the three campuses may well move in largely independent directions. A second way is to build links actively, but with New York in a dominant role and Abu Dhabi and Shanghai in subordinate roles. By this is meant that courses and programs in Abu Dhabi and Shanghai either duplicate or fit into existing courses and programs in New York. The third and most desirable way is to build in a way that leads to a new multi-campus system of education in which the three locations evolve together.

Turning to intellectual capital, this is, of course, a fundamental input provided by members of the faculty. Likewise with administrative capital and administrators. But, here too, there is an important complementor role to consider in addition.

The role of the professor as teacher has always gone beyond simply transmitting information to students. Engaged professors have always been mentors, providers of access and opportunities, and arbiters of taste with respect to all the information that flows in the direction of students every day. However, with the emergence of online courses, these latter roles become all the more important. It can be argued that these roles will, in fact, become the primary or even sole role of the professor.

² This phrase is due to John Sexton.

Under this view, students will acquire information from various sources --- with online sources playing a principal role. The professor will point students to sources and discuss with students the work they do with these sources. This can be thought of as the Oxford model, updated to the 21st century, in which students are responsible for researching topics and then present their work to their "tutors" (the Oxford term) for discussion. In this world, professors, on the one hand, and online courses and other resources, on the other hand, become complementors. Of course, this is not at all to deny that online education is also an extremely significant competitor to the traditional university and its faculty. (See Section 6 below.) The economic landscape has always been full of entities that have both competitive and a complementary aspects to their relationship.

Just as in the previous case, complementarity between professors and the online world does not get realized automatically and needs to be guided. The result will be a radical change to the core of the traditional educational model, which has been the classroom lecture. To point to one aspect of the change: Professors will find themselves in a much less transactional role (go to class and lecture) and in a much more relational role (meet with students and guide and react).

5. Suppliers Become Customers (Too)

The traditional view of alumni of the university is that they are suppliers --- very important suppliers of a very important resource, namely financial capital. This view is incomplete and misses a big responsibility and a big opportunity. Again, technology is the reason. In the connected world, alumni can expect to remain continuously connected to their university and to be lifelong learners at their university. Alumni can expect to have lifelong access to the educational "product" of a university. They become customers, not just suppliers.⁴

A customer (or client) orientation towards alumni has big implications. Alumni reside all around the world, so education will need to be provided all around the world. Online technology is obviously key to this. In the case of NYU, the Global Network means that a highly desirable blend of online and in-person lifelong learning can be built.

Returning to the traditional role of alumni as donors --- as suppliers of financial resources to a university --- change is taking place even here. One much-discussed example is the desire of current students in programs with entrepreneurial content to crowd-fund startups from alumni.

6. Outsiders Become Competitors

Just as for alumni, a customer or client mindset towards students has big implications. It is a premise of good thinking about competition that customers do not respect industry or sector or other boundaries that exist on paper but not in reality. There are many case studies of organizations that failed to recognize this premise and lost customers to unexpected quarters.

³ It hardly needs be said that just as there is no expectation today that students learn only from textbooks written by their own professors, so there should be no expectation that students will learn only from internally created online materials. There should not be a "not invented here" syndrome when it comes to online education.

⁴ The term "customer" can be controversial in an academic setting. If preferred, the term "client" can be used. A client seeks information and guidance from an expert. An expert listens, gives advice, receives feedback, and improves.

In the case of higher education, the question is: Will universities continue to see their competition as coming very largely from other universities? Or will the broader competition, whether already real or as yet potential, for students be fully recognized?

This broader competition includes the MOOCs but also many other new educational models. This memo will not try to add to the extensive cataloging and analysis of these new models that have been undertaken by many people.⁵

Successfully competing against new forms of competition involves a big shift in vantage point. Success in a marketplace involves shifting from an 'egocentric' view ("this is what we do and what we think should matter to customers") to an 'allocentric' view ("this is what really matters to customers"). This is why the question of what mindset is adopted towards students is not a mere rhetorical matter. The claim is that the more deeply held is the notion that a university serves its students, the more successful a university will be in competing in the dramatically changed game of higher education.

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Two relevant sources are: (i) a webcast of an event held at NYU Stern in Fall 2013 titled "The Future of Higher Education in a Digital Era" at http://www.livestream.com/nyutv/video?clipId=pla_714e4809-9865-43e7-abf2-9c3f5cc651c4; (ii) a broad survey at http://www.scientificamerican.com/editorial/digital-education/.