Very Much a Midnight Child:

Software and the Translation of Times at the University

Gabriela Vargas-Cetina

Universidad Autónoma de Yucatán / Cornell University

The paper "Very Much a Midnight Child: Software and the Translation of Times at the University" was written for the conference *The University in Translation*, organized by Brett de Bary, Professor of Asian Studies and current Director of the Center for the Humanities at Cornell University. The conference took place on Sept. 15 and 16 of 2006. The participants were scholars from different fields (mainly the humanities and cultural history), from universities in several countries, including China, Japan, France, Australia and the US. Two anthropologists from Mexico, currently resident fellows at the Society for the Humanities of Cornell (Igor Ayora-Diaz and myself) were also invited. We were all asked to address the current changes of direction the university is taking around the world. As a basic text, which could build common ground for all the papers, we all read Bill Readings' *The University in Ruins*. I was asked by Professor Brett de Bary, the conference organizer, to write on software. This paper thus centres on software as the contested site of access and property definitions, and draws lessons from the free software movement for the construction of a new model of university.

Introduction

Last Fall term, during the first sessions of a course on post-structural theory I was teaching at the Autonomous University of Yucatan, I assigned the class Foucault's *Discipline and Punish*. I am continuously discouraged by what I see as the current disinterest of students in theory books. This time, however, the students read the book and, when we had to discuss it, one of them, the president of the student union, started by thanking me on behalf of the whole class for having given them this book. They had read it and discussed it among themselves all week and found it very relevant to their future

careers. I was pleasantly surprised, and asked the class to elaborate. They said that the book explained how society punishes deviance and how the same disciplinary structures permeate all social institutions.

I was truly happy to hear they had grasped the main ideas of the book, until they told me that they were determined to use it as a sort for manual to keep themselves on check, so as to conform as much as possible to normalcy and be able to get good jobs. I could not believe this, and could not refrain from telling them, in what I thought was a very critical tone: "*Esta es una conclusion insólita!* [you are drawing an unheard of conclusion from this book!]. My generation saw this book as an empowering tool that could help us change the world; you are seeing it as a manual for self-vigilance!" They rapidly discussed among themselves what I had just said. Then the president of the student union spoke again to say that they all thanked me for, unlike other professors, understanding the generation gap so well.

There is no question that the university is changing, not only because, as Bill Readings (1996) and Masao Miyoshi (1988, 2000) have pointed out, industry in the form of transnational corporations is appropriating it; also, and perhaps mainly, because many students already see themselves more as consumers of information and as candidates for clerical and managerial jobs in a market driven by transnational corporations, and increasingly less as scholars who want to either further or question existing knowledge. As university professors, we are finding ourselves in the need to transform our older roles as vehicles and facilitators for the generation of new knowledge, into those of information, and to some extent administration, experts who can help students acquire the

skills they will need to function in the new global economy driven by transnational corporations.

In the last five decades the city of Merida, where I teach, has been the recipient of many transnational franchise outlets, big and small. This trend increased in the 1990s, so that today there are in Merida Volkswagen, Ford, Fiat, Mercedes Benz, Audi, Honda, Nissan, Chevrolet and other car dealerships; MacDonald's, Burger King, Kentucky Fried Chicken and many other food franchises; department stores and buyers' clubs like Sears, Sam's Club, Costsco, Walmart and JC Penny's, as well as the Mexican chains Comercial Mexicana, Liverpool, Sanborn's, Mixup Music and VIP's; clothing stores by Benetton, Levis, Jordache and Gaps's; office supplies corporations such as Office Depot and Office Max; large hardware outfits such as Star Club, Big Home and Home Depot; hotel chains such as the Hyatt Regency, the Holiday Inn and Fiesta Americana hotels. These and many other transnational companies in all fields have multiplied the possible employment (and consumer) options attracting university students. In the meantime, computers, both as productive tools and as communication devices, have joined cell phones and faxes as new necessities in many households and a familiar sight, both at the office and the home. Software has become a ubiquitous and inescapable necessity, not only among the rich, but also in all sectors of society. Higher education has come to include, besides all other content, the mastering of software for the performance of most tasks not only within the university but also in all those places to which our students may aspire to apply for jobs.

This paper centers on software as a privileged locus from which to explore issues of knowledge and the future of the university. As a point of departure for thinking about the University I take for good Billing's model of the University's transition from the

Kantian University of Reason to the Humboltian University of Culture, and from this latter to what may be called the Corporate University of Excellence (Readings 1996).[1] The history of software and the current waves of the movement to re-instate it as part of the public commons is instructive of the ways in which we as professors can participate in the many strands of possible meanings and internal movements currently taking place within the university. Maybe software, like the nose of Saleem Sinai that made it possible for him to read other people's thoughts (Rushdie 1980), allows us to glimpse yet another model for the University, latent in current social movements: the open streams university. This would be a rhyzomatic university, in Deleuze and Guattari's sense (Deleuze and Guattari 1987), which could perhaps begin to recover and fulfill its social responsibilities and contribute to the safeguarding and transformation of all forms of knowledge.

Very much a midnight child

Like Saleem Sinai, born exactly with modern India (Rushdie 1980), software, as we know it, was born with what Manuel Castells (1996) has called "the network society of the information age." Software was the product of military interests and university research and engineering knowledge and facilities. It rapidly became one of the most decisive elements in information technology. The hacker community, or the community

[1] I am aware of the criticisms leveraged to Readings' model by other scholars, but he was writing from his own experience as a professor at the Université de Montréal, in Québec, Canada, and I am writing as a professor of the Universidad Autónoma de Yucatán, in Mexico. Both universities have been part of the respective national governments' efforts in Canada and Mexico to create national cultures, and of the respective Québec and Yucatán regional authorities' efforts to create regionalist sentiments and identities. Whether or not the early model of university was the German one is dubious in both cases, but that specific issue is beyond the scope of this article.

of programmers, resulted from the relations between the U.S. and French military and the academic community, starting in 1945 (Raymond 1999). It was in universities that software and the idea of computer-meditated communication were born. Professors and graduate students mainly in engineering departments began to create programmes to run toy machines. These professors and graduate students came to be known as 'hackers' when first ARPANET and later internet made it possible for them to be in constant contact and exchange technical and other information. Bruce Sterling (1992:45) explains: "Legitimate "hackers," those computer enthusiasts who are independent-minded but law-abiding, generally trace their spiritual ancestry to elite technical universities, especially MIT and Stanford, in the 1960s."

In Rushdie's novel *Midnight Children* Saleem Sinai was exchanged at birth by his poor Hindu mother for the son of wealthier Muslim parents, and as a result grew up in a life of luxury and a religious worldview that did not correspond to him by birth (Rushdie 1980). Software has traversed a similar destiny, from having been born through the efforts of dedicated professors and graduate students who firmly believed in collective freedom and opposed capitalism, to becoming the property and trademark of powerful transnational corporations.

The ideological battles surrounding software and what their users may want as a future society have taken on quasi-religious connotations, in the form of advocacy for and against proprietary software, and particularly for and against Microsoft as either the world's best communications company, or the big enemy of people's freedom. The two opposing camps' stands and purposes are epitomized in the copyright and the copyleft battles. Whereas the proponents of proprietary software continue to lobby national

governments to enforce sanctions against those who copy or modify software in any way, the copyleft movement proposes that intellectual property in general, and software in particular, should be part of the larger commons and not susceptible to property restrictions (Stallman 1999). Three main types of software licenses are currently in use, each allowing more or less freedom to the public to appropriate and modify its terms:

Free software. Richard Stallman, the chairman of the Free Software Foundation and leader of the free software community, explains: "free software is a matter of library, not price. To understand the concept, you should think of "free" as in "free speech," no as in "free beer" " (DiBona, Ockman and Stone 1999, Stallman 2006). Free software implies that one does not have to pay for software, and that all programmes are open to be appropriated and modified by anyone. The GNU General Public license, designed by Stallman, states that the user may copy, distribute and/or modify any software distributed under that license and not prohibit others from doing so; furthermore, all software derived from another piece of free software under the GNU public license, must also be distributed under this same license (Stallman 2006, DiBona, Ockman and Stone 1999, Giuri e Torrisi 2002). Stallman (2006), contesting the secrecy companies try to obtain through copyright registration, has coined the term "copyleft" to designate "a general method for making a program or other work free, and requiring all modified and extended versions of the program to be free as well."

Open source software. In 1997 a group of leaders of the Free Software movement gathered in California to discuss ways to promote non-proprietary

software less as a religious-like movement and more as a sound technological and business alternative. They coined the definition of 'open source software', a type of software they conceptualized as less oppositional to proprietary software. In open software programmes, segments of proprietary code can be combined with segments of non-proprietary software to create programmes that are more hybrid than either their proprietary or free software varieties (DiBona, Ockman and Stone 1999).

Proprietary software. This is the software that makes use of corporate secret in order to hide its code. It usually comes with strong warnings that violators of the code will be legally persecuted through copyright laws. Copyright law in the USA, however, is not easy to enforce. Justices often rule against copyright holders because it is difficult to determine when an intellectual product has or has not transformed into something else.

It was in the 1970s that the fight between the 'hacker' or 'hobbyist community" and commercial software companies began to take its current shape. The universities' hacker community experienced first the appearance and then the consolidation of proprietary software as a betrayal of the principles of shared knowledge and free access to the programmes' cores (Rosenberg 2000). In 1976 Micro-Soft co-founder and programmer wrote "An open letter to hobbyists," where he stated his view that free software would never be of good quality. Gates (1976) admonished:

> Hardware must be paid for, but software is something to share. Who cares

> if the people who worked on it get paid?
>
> Is this fair? One thing you don't do by stealing software is get back at MITS for some problem you may have had. MITS doesn't make money selling software. The royalty paid to us, the manual, the tape and the overhead make it a break-even operation. One thing you do do is prevent good software from being written.

Instead of stopping those in the free software movement, the letter only seems to have fueled the ambition of the hacker community for good-quality free software. Both proprietary software companies and the hacker community have accused Microsoft of appropriating software developed elsewhere. Gates' answer has been that everyone developed the original ideas together, so he is stealing only as much as everyone else. The internet, in the meantime, has remained the virtual land of code freedom, since all internet code is freely available to developers and users.

Universities have tended to host both proprietary and open source systems as part of their networks. This is the case, for example, of the information systems services at the Autonomous University of Yucatan (RIUADY 2005). This mixed configuration results not only from the increasing familiarity of students and staff with computers and software; it also reflects the fact that Microsoft has aggressively pursued the favour of university administrators and accountants.

Not only universities, but also governments around the world, have taken positions in favour or against the free, open source and proprietary licenses of software. Several national governments, including those of France, Mexico, Argentina, Brazil,

Vietnam, Germany, Spain, Italy and Peru, have put entire sectors of their virtual services on free or open source software (Chan 2004, Zorzoli 2003, 2004). It is possible that the first national and regional governments supporting and using non-proprietary platforms did so because the programmes and applications necessary for their e-government sites were developed before the predominance of proprietary software. This was the case, for example, of Mexico and of European countries that began running e-government sites in the early 1990s. In Mexico the government of Vicente Fox (Dec. 2000-Dec.2006), a staunch supporter of corporations (he himself was the President of Coca Cola – Latin America before entering politics), tried to 'modernize' governmental software through contracts with the Microsoft corporation. Within this context, the Autonomous University of Yucatan signed an agreement with Microsoft in 2001 (Madera Ramirez et all 2006). In 2003 the federal government signed a general agreement with the Mexican branch of Microsoft to take Microsoft software to elementary schools across the country (Microsoft Mexico 2003). However, if Microsoft programmes are relatively good for individual computers, switching public services to proprietary software has proven difficult to accomplish, since the existing applications would have to be completely substituted by new ones that were not designed to do the specific functions the current ones perform.[2]

On August 18, 1998, an internal document circulated inside Microsoft was leaked on to Eric S. Raymond, an influential hacker and proponent of open source. The

[2] An example that comes to mind is the software applications used by CONACYT, the National Council of Science and Technology, has been developing its own applications at least since 1990. Still in 2005 the applications used by researchers to apply for CONACYT programs were all based on non-proprietary platforms, probably to ensure cross-platform functionality in all Mexican universities.

document, later known as the first in the series of the Halloween Documents (Raymond n.d.), proposed that Open Source should be of concern to Microsoft because free and open source software had achieved great quality, often surpassing that of proprietary software, and because of the commitment of their proponents, which made it hard to overcome in order to convince potential buyers to purchase Microsoft systems and applications.

Eric S. Raymond continued to publish documents leaked from Microsoft where the corporations' programmers recognize the strengths and increased quality of open software, and the difficulties of Microsoft to keep up and remain a viable alternative. One of the free and open source software movement's greatest triumphs came when Netscape announced in 1988 that it was putting its entire suit of internet applications under public (open) license. But perhaps the greatest triumph was the release of Apple's OS X, which was based on a combination of proprietary and open source software, and was fully compatible with free and open source software. Apple continued to move toward making its software increasingly free. Finally, in May of 2006 the Free Software Foundation approved Apple's BDS kernel as meeting the requirements of free software and copyleft. Project Darwin, based exclusively on open source, has given Apple an important sales boost and great support among the open source and the free software open community. Apple is adapting its hardware to run most versions of free and open source software currently available, and inviting developers to contribute new programmes and applications. Apple's sales have multiplied, showing that business and software freedom are not incompatible and can in fact mark new directions for the future of both corporations and consumers.

Today, many national governments and universities are contemplating the migration of their computer systems to only open source and free software platforms, because of their greater functionality and security, compared to Microsoft platforms and systems. The Autnomous University of Yucatan, for example, commissioned a study on the comparative advantages of proprietary and open source software, and the committee in charge has recommended the displacement of Microsoft Windows in favour of Linux, a free operating system (Madera Ramirez et al. 2004).

Abracadabra: open all sesame

The Free Software and later the Open Source movements are having important impacts on the conceptualization of intellectual property in general. Hundreds of personal diaries and commentary e-newsletters, known as blogs, now compete with venerable print magazines and conventional media shows in setting trends in consumer niche markets. Maybe the most ambitious open source project that has gone unchallenged to date is Wikipedia, the free encyclopedia. Wikipedia was founded in 2001 by Jimmy Wales and Larry Sanger (Sanger 2005a, 2005b). While Google's open library project (which attempted to put online and freely accessible all published content) met with legal obstacles from day one, Wikipedia has managed to grow into an international phenomenon and now the entries can be searched in over 200 languages the world over. Wikipedia is based on the principle of 'radical collaboration': anyone can write an article on any topic, and everyone is free to edit the piece, using Wiki software, which is free and easy to use. Entries in each language are not translations, but rather original contributions.

In December of 2005 *Nature* published the result of their investigation on Wikipedia, the free internet encyclopedia written entirely by its users, and based on wiki free software. Comparing it to the Encyclopedia Britannica. *Nature* researchers found that the Encyclopedia Britannica was not much more reliable than the Wikipedia. Jim Giles (2005), writing for *Nature*, stated:

> The exercise revealed numerous errors in both encyclopaedias, but among 42 entries tested, the difference in accuracy was not particularly great: the average science entry in Wikipedia contained around four inaccuracies; Britannica, about three.

Encyclopedia Britannica has challenged these findings, but they were celebrated as an important victory by Wiki fans.

The publishing industry has been quick to respond to what they see as a major threat, since many authors and even academic associations now post their publications as freely available downloads. Some database companies have been able to gain control of the access to their publications, as in the case of the companies running ProQuest and JStor in the academic community, but there is also a strong movement toward open access in publishing, championing the idea that all research publishing should be made available free of charge. MIT, the University of California and Cornell University have put educational materials online for downloading free of charge. Some commercial publishers are trying to deal with the possible loss of revenue by charging the scholars or their institutions for releasing their work online for free. For example, Cambridge University Press (CUP) is, as of August 2006, allowing authors to post online for free

their accepted papers in 15 of CUP's journals only if the authors or their institutions pay between $1500 and $2700) (Suber 2006).

To date, the most famous legal battles around the release of intellectual products for free over the internet have been waged around music. John Alderman, the editor of the cultural section of Wired News, has covered the MP3 explosion since its beginnings. He writes (Alderman 2001:4):

> The groundbreaking ability of people across the planet to freely share information is changing the world and our culture, and this presents a scary prospect for those hoping to make money in exchange for the time and the resources invested in producing and marketing to that culture. If a band and its producer are accustomed to spending a year and several hundred thousand dollars recording and touring to promote a record, it's easy to see how they might fear the new ability of anyone to send a copy of whatever they like, for free. Unlike illusionary changes in styles and personae, or even corporate acquisitions and mergers, this fundamental shift changes even the form that music takes. Digital distribution means that music is no longer tied to an object such as a record, tape, or CD, but becomes, as it is being shared and consumed, something more ethereal. Depending on how you look at it, in the online world, music has been either stripped or liberated from its body; only its soul remains, its digital code.

In the Fall of 1999, Shawn Fanning, an 18 year old programmer, set himself to work with Jordan Ritter and Sean Parker, two young men he had met in the internet. In June of 1999 they released Napster, and application that made it possible for people to freely swap music on the web as MP3 files (Alderman 2001, McManus 2003). Napster was an overnight sensation, as thousands of people across the globe began to exchange entire music collections on the internet for free. In December of 1999 Napster was sued by the Recording Industry Association of America (RIAA), which represents the largest music corporations in the United States. Napster was also sued in April 2000 by the rock band Metallica. Napster finally shut down in July 2001 and later filed for bankruptcy in June of 2002 (Alderman 2001, M/cyclopedia of New Media 2005, McManus 2003). Napster's assets were bought by another company and it now offers a file swap service (Napster to go) where users who want to listen to a song more than twice have to purchase it to keep the file.

Many other file-swapping applications are still very alive, although they are considered illegal by the record companies and continuously persecuted. Computer users, in the meantime, continue to exchange digitized music over the internet, to the record companies' disgust. In the meantime, new forms of having access to free music and other types of files (photos and movies) have developed, including podcasts. Personal podcasts are entire streams of files that any computer user can post at a public server (for example Apple's iTunes electronic store) to share with one's friends and with unknown downloaders.

Translating the university

Bill Readings (1996) proposed that the university has gone through three different phases in the recent past: from the Kantian university of reason to the Humboltian university of culture, and from the latter to the current model of the corporate university of excellence. As Readings shows, the model of the university of culture has been thoroughly outgrown by most contemporary societies. National cultures are not logically or empirically supported, and the wishful thinking behind the ideas of the nation and of nation-making have been exploded. What should be the fate of the university in the 21st century? Is the university still relevant in today's contemporary world of translocal culture and post-national thought? The university needs to be translated, in the sense of being transformed to best suit the current times and the needs of the many, diverse student bodies it has traditionally served. Also, the university must renew its commitment to contributing to public life and changing with society itself.

There are at least two models we can see as competing for the university's future. The first is the model of the transnational corporation, which would turn the university into an institution tied to the demands of the market, that has to support itself financially and provide students with the skills and the knowledge to function in the corporate internatinal economy. The university of excellence, as described by Bill Readings, seems to be the goal of university reform based on the corporate model, and the goal of supra-national institutions such as the World Bank and the meta-national regional banks (including the international monetary fund, IMF). Readings proposes that the university has become alienated from society, turning to itself and becoming a self-serving institution.

The increasing distance between the rich and the poor today, the greater spatial and political separation among social strata, the transformation of rural producers into dependents of the biotechnology companies, the increased control by corporation executives of employees, the vassal-like characteristics of the individual entrepreneurs working for franchise capital corporations, the growing restrictions around the circulation of knowledge, the emerging patterns of highly unequal property rights and the booming business of private protection firms and anti-terrorism private services are sometimes conceptualized as a new feudal order (see for example Drahos and Braithwaite 2002, Mowshowitz 2001, Nathan 1981, Schubert 2005). Following this reasoning, maybe a return to the Mecenas model can be envisioned, and there is also the possibility of thinking of the university in the old Kantian model, as the repository of reason and meta-social thought, beyond national boundaries. This university would be, as before, an elitist institution detached from everyday concerns. If we were in effect returning to a world of utter inequality, it would be conceivable to think of the university as a sort of meta-social entity that is entrusted with the role of permanent reflection and reasoned analysis of society and worldly affairs. Given this scenario, it would be up to social elites and middle class supporters adhering to old values of knowledge as important in itself to keep this type of university going. This type of university would be completely dependent on the ethical values and the monetary donations of social elites.

But there is yet another model of university, which we can derive from the history of the open source and copyleft movement, its goals and its increasing victories: a university that builds on its past and looks toward a future as part of the commons of

human knowledge; a university where different streams of knowledge converge and are shared and modified by all. I am calling it here the open streams university.

The open streams university: minimal installation requirements

Metaphors often allow us to see things from new angles, in simplified yet suggestive ways. One way to envision the open streams the university –probably the best way, if we are to learn from the free and open source software movements- is by thinking of the university in terms of hardware and software. We can think of all the buildings, libraries, athletic installations, parking lots and all other university constructions and equipment as hardware. Thinking of the university as software, we would have to include all the knowledge necessary for the university to be a university (akin to computer's operating system) and of all the forms of knowledge included within the university or linked to the university in some way. From this vantage point, Readings' sequence of the university would look as follows:

> *The Kantian university of knowledge*: the programmers and users were the intellectuals and the state. The programmers/users saw themselves as 'men of knowledge' (women were generally excluded) who had the task to embody society's higher forms of thinking and applying their science for the good of the world.
>
> *The Humboltian university of culture*: the programmers were the state governments that tried to create a sense of nation, the intellectuals who believed

in either knowledge as an intrinsic good, or the value of nationalism and nationalist culture, and the private interests (including companies and corporations) that funded universities around the world. The users of this university saw themselves as citizens, with rights and obligations that often included the university in some way.

The corporate university of excellence: the programmers are meta-national bodies, including the World Bank and the International Monetary Fund, national governments with an interest in the promotion of corporations, and a host of administrators who hold the university's professors and staff accountable through means of accounting. The users of this university see themselves as employees and consumers, and see the university as an institution that has to provide its services as part of a smorgasbord of available services.

If we are to translate the university into an open streams university, we would have to take elements from all these models to create a new one, more responsive to society, more plural, more accepting of a plurality of cultures and subcultures and in general more willing to change constantly with input from society at large.

All computer software requires, in order to be installed, for its functions to be desirable by the potential users. For a university of open streams to be possible there would have to be agreement on at least the following basic tenets: knowledge should be a public good, freedom is a public good and the university is a public good. This type of

university would also have to meet the following minimum requirements for installation, retaining segments of previous operating systems:

1. From the Kantian university: the concept of knowledge as a public good, of which the university is a privileged repository, creator, catalyst and implementation guide. As per the Kantian principles, the university is the privileged realm of knowledge and knowledge-related activities.
2. From the Humboltian university: no single culture, national or otherwise, should be represented by the university; instead, the plurality of cultures extant in any social context should be at the heart of knowledge-keeping, –generating and –implementing activities. A per Humbolt's ideals, the university must appear as a repository of culture.
3. From the corporate university: knowledge can generate money. However, not all knowledge has to generate money. The money generated by those activities that can be supported by different types of projects should be used by the university for the generation of further knowledge. Accountability should be demanded of the university and their programmers and users, although this would have to be through mechanisms other than accounting methods; not all knowledge is translatable into measurable and income-generating goods.
4. From the open source and copyleft movement: knowledge cannot be kept or generated only by the university. Knowledge cannot be kept secret. Knowledge as part of the larger human commons. The university is plural in the sense that the forms of knowledge within it should come from a plurality of sources, should serve a plurality of purposes and should be open to question by both university

> and non-university members of the larger international communities. Funds obtained in one type of activity or discipline must be socialized to support the greater University commons. The university must be an ever- changing confluence of continuously changing streams. The university must be, in terms of Wilson and Dissanayake (Wilson and Dissanayake 2006, Wilson 2006) , *globloc* multiplied rhyzomatically inside particular, local universities: very much the *glob* of global and very much the *loc* of local.

The open streams university would seat on the confluence of all these models: The university as the main repository, innovator, generator, catalyst and implementation advisor of knowledge. We would all have to agree on knowledge as the central AND open kernel: never fixed, never secret and yet supporting everything we might build around it and upon it. Epistemology would have to be understood as politics, but not always necessarily as partisan politics related to the democratic ways of particular nations. It would be necessary to restitute the value of agonistic discussion, to make sure all perspectives can be heard. Programmers and the users of this university would be all, and always interchangeable.

Saleem Sinai's revolution never happened because he only, or at least mainly, relied on those born at the stroke of midnight on August 15, 1947. The free and open source copyleft revolution is, in spite of what its most fervent proponents repeatedly say, not a revolution at all; just another way to retrieve to the human commons part of the knowledge that had been appropriated for profit only. The university can learn from that movement's lessons and keep knowledge as part of the greater commons; this would

imply not the dismantling but rather the translating of the existing university. But it will take more than just a single group of people, and more than just those of us at universities, to effect the change that will take us to the open streams university. And there has to be room for everyone and every possible perspective and all discussions, including all the possible readings of Foucault's work.

Acknowledgements

Several people have helped me research, conceptualize and write this paper. Special thanks to Brett de Bary for having invited me to write on the university and software, and for her encouragement, to Steffan Igor Ayora-Diaz for helping me search for materials and discuss my ideas, to Stacy Lathrop for the references on the open source movement in publishing and to Mary Ahl for her help with all the logistics surrounding the writing of this paper. Salman Rushdie's work provided, of course, much inspiration. I wrote the paper while in residence as a post-doctoral fellow at the A.D. White Center for the Humanities of Cornell University. Several resident fellows listened to my ideas and asked me pointed questions. I thank them all. The responsibility for all misinterpretation, extrapolation and downright and downleft speculation, however, is only mine.

References

Alderman, John (2001) *Sonic Boom. Napster, MP3, and the New Pioneers of Music*. Cambridge: Perseus Publishing.

Castells, Manuel (1996) *The Rise of Network Society*. Vol I. of *The Information Age*. New York: Blackwell.

Chan, Anita (2004) "Coding Free Software, Coding Free States: Free Software Legislation and the Politics of Code in Peru". *Anthropological Quaterly Summer* 2004, Vol.77, Issue 3. Pp.531-545.

Deleuze, Gilles and Felix Guattari (1987) *A Thousand Plateaus. Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press.

Gates, Bill (1976) "An Open Letter to Hobbyists" Downloaded from http://www.blinkenlights.com/classiccmp/gateswhine.htm on September 21, 2006

Giles, Jim (2005) "Special Report. Internet Encyclopaedias go Head to Head." Nature. International Weekly of Science. 15 December 2005. Retrieved from http://www.nature.com/nature/journal/v438/n7070/full/438900a.html on September 14, 2006.

Giuri, Paola e Salvatore Torrisi (2002) "Economia e management dell'open source software. Alcune note di ricerca" Retrieved from http://www.lem.sssup.it/projects/project19.html on September 12, 2006.

Gnu.org (2006) "FSF's Opinion of the Apple Public Source License APSL 2.0." Downloaded from http://www.gnu.org/philosophy/apsl.html on September 12, 2006.

Madera Ramirez Francisco et al. (2004) *Informe de Actividades. Proyecto "Migración a una Plataforma de Software Libre en la Universidad Autónoma de Yucatán"*. Downloaded from

http://www.uady.mx/sitios/g2000/documentos/linux2004.pdf#search=%22Universidad%20Yucatan%20acuerdo%20Microsoft%22 on September 26, 2006.

M/cyclopedia of New Media (2005) "Filesharing – Napster – History." Downloaded from http://wiki.media-culture.org.au/index.php/Napster on September 24, 2006.

McManus, Sean (2003) "A Short History of File Sharing." Downloaded from http://www.sean.co.uk/a/musicjournalism/var/historyoffilesharing.shtm on September 24, 2006.

Microsoft Mexico (2003) "Noticias. La Secretaría de Educación Pública y Microsoft México anuncian la iniciativa "Alianza por la educación" que acercará la tecnología a más de 125 mil escuelas de nivel básico de todo el país." Retrieved from http://www.microsoft.com/mexico/educacion/alianzaporlaeducacion/noticias/default.asp on September 13, 2006.

Miyoshi, Masao (1988) " 'Globalization', 'Culture' and the University" in Fredric Jameson and Masao Miyoshi, eds. *The Cultures of Globalization*. Durham: Duke University Press.

Miyoshi, Masao (2000) "Ivory Tower in Escrow." *Boundary 2* (27)1:7-50.

Mowshowitz, Abbe (2001) "Virtual Organization: The New Feudalism." Computer 34(4): 110-111.

Nathan, James A. (1981) "The New Feudalism." *Foreign Policy* 42:156-166.

Raymond, Eric S. (n.d.) The Halloween Documents. Retrieved from http://www.catb.org/~esr/halloween/ on September 11, 2006.

Readings, Bill (1996) *The University in Ruins*. Massachusetts: Harvard University Press.

RIUDAY (2005) La red integral de la Universidad Autónoma de Yucatán. Source: http://www.riuady.uady.mx/riuady visited on September 18, 2006.

Rosenberg, Donald (2000) *Open Source: The Unauthorized White Papers*. John Wiley and Sons. Electronic version. Source: http://library.books24x7.com/book/id_1249/viewer.asp?bookid=1249&chunkid=654855926, downloaded on September 18, 2006.

Rushdie, Salman (1980) *Midnight Children*. New York: Random House.

Sanger, Larry (2005a) "The Early History of Nupedia and Wikipedia. A Memoir, Part I." Retrieved from http://features.slashdot.org/article.pl?sid=05/04/18/164213&tid=95 on September 26, 2006.

Sanger, Larry (2005b) "The Early History of Nupedia and Wikipedia. A Memoir, Part II." Retireved from http://features.slashdot.org/article.pl?sid=05/04/19/1746205&tid=95 on September 26, 2006.

Schubert, Robert (2005) *Farming's New Feudalism*. World Watch, 08960615, May/Jun2005, Vol. 18, Issue 3. Electronic edition (html). Downloaded from http://wf2la2.webfeat.org:80/m8nRG1163/url=http://plinks.ebscohost.com/ehost/detail?vid=2&hid=102&sid=f450e6e7-fe41-41d1-a91f-21df641f2372%40sessionmgr4 on September 25, 2006.

Stallman, Richard (1999) "The GNU Operating System and the Free Software Movement" in DiBona, Chris, Sam Ockman and Mark Stone, eds. *Open Sources. Voices from the Revolution.* Sebastopol, CA.: O'Reilly.

Stallman, Richard (2006) GNU's Not Unix! – Free Software, Free Society. Retrieved from http://www.gnu.org on September 14, 2006.

Suber, Peter (2006) "Cambridge launches an OA hybrid program" in *Open Access News. News from the Open Access Movement*. Retrieved from http://www.earlham.edu/~peters/fos/2006_08_06_fosblogarchive.html on September 28, 2006.

Wilson, Rob (1996) "*Goodbye Paradise*. Global/Localism in the American Pacific" in R. Wilson and W. Dissanayake, eds., *Global/Local: Cultural Production and the Transnational Imaginary*. Durham: Duke University Press.

Wilson, Rob and Wimal Dissanayake (1996) "Introduction: Tracking the Global/Local" in R. Wilson and W. Dissanayake, eds., *Global/Local: Cultural Production and the Transnational Imaginary*. Durham: Duke University Press.

Zorzoli, Pablo Luis (2003, 2004) *Investigación sobre el movimiento del software libre*. Versión 0.4 Obtained from http://www.z-labs.com.ar/docs/tif/indice.html on Monday, September 11, 2006.