Ethical Issues for the Virtual University

Philip Brey

This is a preprint version of the following article:

Introduction: Values, Computers and Education

Educational computing and distance learning initiatives have given rise to what has been called the Virtual University: a university without a (single) physical campus, that is cemented by electronic networks, including electronic mail, bulletin boards, video conferencing and shared electronic environments (Freeman et al., 2000; Tschang and Della Senta, 2001). The Virtual University has already been the topic of extensive research, that focuses on topics like institutional organization and policy, technological infrastructures, curriculum development and quality control. In this study, the focus will be on normative dimensions of the Virtual University, a topic that so far has not received much attention. It will be considered how the emergence of Virtual Universities may impact on cherished values, such as liberty, justice, privacy and sociality. This study is "ethical" in a broad sense. It broadens the scope of ethics to also include issues in social and political philosophy that address the way we want society to be organized. It is not just concerned with the moral behavior of individuals, but also with fundamental conceptions of what Aristotle has called the Good Life, and how different conceptions of education may impact the Good Life. Its central focus is how Virtual Universities may be developed and managed in a way that respects and promotes basic societal values as well as values particular to higher education.

Therefore, the moral behavior of individuals in the Virtual University is the subject of just one of the sections of this study. Other sections address broader issues in social ethics that concern the institutional role of the university in society and the values embodied in the university. The following three questions are central to this study:

1. Can and should Virtual Universities have the same role in promoting the public good as conventional universities?

2. How are core ideals of higher education, specifically academic freedom and equality, affected in the Virtual University?

3. What new moral issues does the Virtual University pose for the behavior of students, faculty and administration and what policy issues does it raise for university policy regarding such behavior?

The first question is addressed in sections one and two of this study. Section one centrally addresses the role of the university in society, and considers whether Virtual Universities can and should fulfill the same role in serving the public good, by fulfilling the wide variety of societal functions that conventional universities have. Section two considers the acquisition by students of academic and social values in the university, and asks whether virtual universities can be as good as conventional universities as places where students acquire and develop academic and social values.

The second question addresses two fundamental values embodied in the higher education system. In a study of values in higher education, Clark (1983) has argued that three values are fundamental in the institution of higher education: competence, social justice and liberty. Discussions of higher education have been dominated by these three concerns: that universities are to promote scientific and professional competence in its students and faculty ("competence"), to provide equal access to students and equal treatment to students and staff ("social justice") and to provide a climate of academic freedom while retaining institutional autonomy from the state and outside groups ("liberty"). Competence, which is not a moral value, will not be addressed (directly) in this study. Liberty and social justice, however, are moral values, and will be considered in sections three and four, respectively. In section three, it is studied what new challenges and opportunities the Virtual University poses for academic freedom and what consequences distance education may have for the institutional autonomy of universities. Section four focuses on equality and equity, and considers possible consequences of distance education for equal access to higher education and equal treatment in higher education. It includes a special discussion of the challenges and opportunities involved with the development of a Virtual European University. Section five addresses the third question, regarding the moral behavior of students, staff and administration in the virtual university. In a concluding sixth section, policy issues will be identified and policy recommendations will be made, based on the discussion in sections 1 to 5.

The literature that is reviewed in this study does not constitute a coherent body of research. Publications that consider social and ethical aspects of distance education and computer-aided instruction are few and scattered. For the most part, they are found in education studies journals, particularly in journals on distance education or educational technology, and in the literature of computer ethics, a field of applied ethics that centrally focuses on ethical issues associated with information technology (Johnson, 2000; Tavani, 2003; Spinello, 2000; Baird et al., 2000; Forester and Morrison, 1994; Baase, 1997). In both educational studies and computer ethics, however, the study of social and ethical aspects of distance education and computer-aided instruction has not been a major concern. Nevertheless, a number of relevant studies have been done, and these point to a number of emerging themes that are discussed in this study.

1. The role of the university in society: Can and should virtual universities function like conventional universities?

The most important function of higher education is undoubtedly the teaching of knowledge and skills at an academic or advanced professional level. The major social benefit of higher education is that it produces individuals with knowledge and skills that are valuable to society. However, it has often been argued that universities serve a number of functions other than the transfer of knowledge and skills, and that these functions also have important social benefits. Some of these functions are manifest and intentional, whereas others may be unintentional or latent.

The following is a listing of some of the functions that institutes of higher learning also have been claimed to serve in society (cf. Henslin, 1993: 472-6; Croy, 1998):

1. *Cultural transmission of values*
    Universities do not just teach knowledge and skills, they also transfer cultural values, such as academic values like honesty, collegiality, respect and openness, and other core social values such as individualism, competition, civic engagement, responsibility and loyalty.
2. *Social integration*
    Universities perform the function of social integration by helping to mold students with diverse backgrounds into a more or less cohesive unit. Peer culture, the campus and the classroom are important elements in this process, through which students (and staff) narrow the social and cultural distance between each other and

forge common identities and joint social practices. This social integration process is especially important for immigrants and lower class students, whom it helps to familiarize and identify themselves with society's social institutions.

3. *Promoting personal and social change*

   At universities, many students learn to "think for themselves" - to critically evaluate ideas of themselves and others and social life in general. Universities tend to open up students to new ways of thinking and doing - in ways that often go far beyond the disciplinary specialization of students. Also, new insights gained by students and staff at universities may induce various forms of social change, through their effect on sociocultural practices, professional practices and politics.

4. *Establishing social networks*

   Students establish various social networks in college, many of which last beyond college. Students establish relationships in college which frequently result in marriage. They establish friendships that may last throughout their lives, and that frequently play a role in the forging of business and professional networks. Students also join college organisations and groups that help give direction to their careers and that sometimes continue to serve functions after college as well.

5. *Offering extracurricular activities and social services*

   Universities typically provide a large variety of extracurricular activities and social services for students and staff. Universities typically have a cultural offering, which may include concerts, theatre, movies, dance and art, and which often also serves the local community as well. They frequently offer sports facilities, housing, religious facilities, affordable healthcare and counseling services, as well as dining facilities, pubs and bookstores. And they offer a wide variety of student organizations and clubs, which allow students to engage in activities ranging from radio broadcasting to mountain climbing to folk dancing to political activism. The experience gained through such extracurricular activities is valued highly by many college graduates.

Are these functions of universities taken into account in the development of distance education initiatives, and can they be? Critics of distance education have argued that they are not taken into account. They have charged that distance learning initiatives that have been developed so far focus predominantly on the transfer of knowledge and skills, and have tended to downplay or forget the other societal functions of universities. Virtual universities have been claimed to only reproduce the academic cognitive function of the university, and fail to reproduce most or all of the other major social benefits of universities listed above. Many of these critics would even go as far as to argue that distance education settings are *in principle* unfit to emulate most of these functions of conventional universities.

Croy (1998: 235), for example, contrasts a narrow conception of universities as "information generation and transmission facilities" with a broad conception as "complex, multidimensional institutions centered around a wide variety of services and functions" and concludes that given the difficulty of emulating this multidimensionality in virtual universities, "developing undergraduate distance degree programs is at best premature". Resnick (2000) argues that organized extracurricular activities cannot be replicated online, ant that these activities "have been a crucial component of a traditional college education" which "create social capital, prepare students for civic engagement and combat the self-absorbed individualism which undermines democratic society." From a normative point of view, these authors and others argue that important social benefits of the university are lost in distance education, and do not consider these losses to be acceptable.

Proponents of distance education are likely to agree that virtual universities cannot offer a wide range of extracurricular activities and social services because many activities and services cannot be reproduced in electronic form. Yet, many proponents would disagree that the transmission of values, social integration, personal and social change, and the establishment of social networks do not or cannot occur in virtual educational settings. They argue that such social aspects of education can be reproduced in the virtual communities of the virtual university. As Starr (1998) predicts, "Institutions, long involved in building "communities" on campus, will see themselves actively building "virtual or electronic communities". In some cases, these will parallel existing "physical"communities; in other cases one will see new communities, unique to a virtual society." (165).

Yet, the idea that virtual communities can have the same quality as "physical" communities has been questioned by some authors. Positively, some key virtues of "physical" communities can be and have been realized in virtual communities, such as solidarity, a sense of belonging, and mutual trust and care (cf. Rheingold, 1993). Yet, it has been argued, social interactions in virtual communities is less rich and less engaging than in 'physical' communities because it lacks face-to-face interaction. One does not get to know whole persons, but user i.d.'s that type sentences (Sclove, 1995; Prosser and Ward 2000). Virtual communities moreover usually have few public spaces and objects that require a shared responsibility and shared maintenance (Winner, 2000). If these authors are right, virtual educational communities are poor substitutes for the 'physical' communities found at university campuses, and cannot adequately realize a number of important functions of universities.

2. The transfer of (academic) values in virtual universities

In the previous section, the cultural transmission of values was identified as one of the major functions of universities. For most students, the university functions as a social microcosm, a miniature society in which they learn to function as one of its members. It is a place were many students learn to live a life for themselves, without constant supervision by their parents, and thus to become autonomous citizens. In the process of becoming this autonomous citizen, students adopt new cultural values in interactions with their teachers, their peers, and other members of the university community.

One set of values that is acquired by students in universities is particularly important, since their transmission is considered to be a central function of university education, and universities pride themselves with them. These are *academic values*. Academic values are values that academically trained individuals are expected to uphold in academic settings and in professional life, and that define what has been called academic integrity (cf. Center for Academic Integrity, 1999). They are values that directly bear on the manner in which academic work is performed, the manner in which professional interaction takes place, and the attitudes that are taken to professional work and professional interaction. Academic values include values such as honesty, objectivity, fairness, trust, collegiality, respect, accuracy, thoroughness, independence, openness, curiosity and responsibility. A university training, then, is not just about learning knowledge and skills in a certain discipline, it is also about acquiring academic values so as to acquire an academic "mindset," a set of attitudes and practices in which these values are brought to life.

Can virtual universities serve as proper vehicles for the transmission of academic values, and for the transmission of cultural values in general? A number of authors have argued that they cannot. They have argued that a profound learning experience, which includes the transmission of academic values, requires real-world settings in which people engage in face-to-face interaction. This, indeed, seems to be the feeling of many educators throughout the world. For example, the New York Times has reported that "the American Federation of Teachers …. critical of the sterility of distance learning, noted, "All our experience as educators tells us that teaching and learning in the shared human spaces of a campus are essential to the undergraduate experience"" (in Dreyfus 2001 p. 32). Nancy Dye, president of Oberlin College in the United Stages, has claimed that "learning is a deeply social process that requires time and face-to-face contact. That means professors interacting with students." (also in Dreyfus, p. 32). And Bernard Tan, student dean of the National University of Singapore has argued that interaction via the internet and video conferencing "cannot replace the face-to-face interaction which must be at the core of our teaching programmes". He emphasizes in

particular that the transmission of "the values which will underpin our students' working lives and their interaction with their fellow citizens … cannot be achieved without face-to-face interaction which is unmediated by high technology." (Tan, 1999).

Philosopher Hubert Dreyfus has presented an extensive argument against distance education as a means for transferring values. He argues that education centrally involves the transmission of skills and a process by which educators foster commitments in their students and stimulate them to develop strong identities. He then argues that such skills, commitments and identities cannot adequately be transferred in distance education since they require bodily presence and localized interactions between students and teachers. This requires a relation of apprenticeship, which according to Dreyfus cannot be attained on-line. "Only by working closely with students in a shared situation in the real world can teachers with strong identities ready to take risks to preserve their commitments pass on their passion and skill so their students can turn information into knowledge and practical wisdom." (1999, p. 20).[1]

It is not just face-to-face interaction and apprenticeship that have been argued to be missing elements that prevent an adequate transfer of cultural values in distance education. What has also been argued to be an essential ingredient is the presence of a genuine academic community in which students are embedded. Eaton (2000), for example, is worried that the dispersion of faculty and students in distance education may lead to a loss of "collegiality and shared governance," which she considers a core academic value. Prosser and Ward (2000) have argued that the transfer of "practical wisdom" in education requires communities with interpersonal connectivity among its members. Yet, they argue, virtual communities of the kind found in distance education are too impoverished to function as genuine communities, because of their relative anonymity, the difficulty of developing genuine commitments to things or people in the virtual environment, and the risk of an overload of trivial information in virtual environments.

Next to these critical voices, there are also authors who are optimistic about the possibility of transferring academic values in distance education, as well as the possibility of developing genuine apprenticeship relations and building genuine academic communities. John Daniel, vice chancellor of the Open University in the U.K., argues that "distance learning can be absolutely consistent with academic values," if faculty and administrators are committed to them and distance education courses are set up in the right way. Stasi (2002) claims that current approaches to distance learning too often suffer from Tayloristic and behaviorist approaches to learning, but argues that

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[1] See also Borgmann (1999); see Nissenbaum (1998) for a review of arguments for and against the claim that computers dehumanize education.

newer theories of collaborative, ecological learning can be used together with collaborative computer technologies to create a new distance learning paradigm in which learning has many of the same qualities as it has at conventional universities.

3. Academic freedom, institutional autonomy, and the virtual university

Intellectual freedom is the freedom to use one's intellect in a way of one's own choosing, and to both hold, receive and disseminate ideas without restraint. The American Library Association defines it as "the right of every individual to both seek and receive information from all points of view without restriction" and holds that intellectual freedom "provides for free access to all expressions of ideas through which any and all sides of a question, cause or movement may be explored."[2] Intellectual freedom has often been defended as a core Western value, as a necessary prerequisite for democracy and cultural progress (cf. Morse, 2001).

Academic freedom is intellectual freedom as it exists within the academy: it is the free pursuit of knowledge by scholars and students. According to Clark, academic freedom involves freedom of research, freedom of teaching, and freedom of learning (p. 248). As he points out, the liberties of academic freedom are sought at various levels: students seek freedom to learn what they want, scholars seek freedoms in teaching and research within their department, departmental groups seek self-determination within the university, and the university seeks autonomy from the state and from outside groups (p. 248). Basic to this push for liberties is, according to Clark, "the desire for individual self-expression". Teachers want to teach to be able to say what they please without restraint or fear of retribution. Those who learn want to learn in a way that helps realize their life plan: they want be able to choose what they learn, how they learn it, and at what pace they learn it.

In discussing academic freedom and the virtual university, some authors have argued that the virtual university enhances academic freedom for students by offering them more choice, and by making a university education available for students who are less likely to attend a conventional university (see also the next section on equality and diversity). More generally, also, authors have been emphasizing the greater informational freedom that results from the Internet as an education medium, as it enhances opportunities for academic communication, information retrieval and teaching.

However, many authors also identify challenges to academic freedom that may arise in virtual universities, and, more broadly, from the use of computers and the Internet in education. I will here mention three major challenges that have been identified:

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[2] Intellectual Freedom and Censorship Q and A of the American Library Association at http://www.ala.org/Content/NavigationMenu/Our_Association/Offices/Intellectual_Freedom3/Basics/Intellectual_Freedom_and_Censorship_QandA.htm

Content selection and limitations on free speech

Academic freedom means, amongst others, free access to information and freedom of speech for both students and faculty. When speech or information is carried by a digital medium, however, limitations may be imposed quite easily: an administrator, system operator or list moderator may block certain types of messages, delete certain web pages or block certain e-mail addresses in a matter of seconds. Thus, both students and faculty are in a dependent position concerning their ability to acquire information and voice opinions via computer networks.

Regarding free access to information, universities have the option of placing filters on their Internet traffic that effectively block access to certain web sites or to bulletin boards or messages that contain certain types of content (Rosenberg, 2001). Filtering or blocking may be done for efficiency reasons, for instance because it is found that certain sites, such as adult sites, generate a large amount of web traffic that causes net congestion. However, it may also be done as a form of censorship, to prevent users from having access to certain types of information that are considered immoral or illegal or otherwise undesirable. For instance, access may be blocked to sites with adult content, with racist or fascist content, or with illegal software available for download. Though such efforts are understandable, it may be questioned if such content control can be reconciled with the demands of academic freedom. Moreover, the use of filtering software has a reported disadvantage, which is that it invariably filters too much. Filters usually block access to messages based on the occurrence in them of certain key words. This ignores context, however, and so often leads to 'suitable' content being blocked. For instance, sites or messages may be blocked that study pornography rather than containing it, or challenge racism instead of promoting it.

Regarding free speech, universities may try to exercise control over the types of speech that are exercised by students and staff over the university network. They may, for example, have policies against certain types of speech that are considered undesirable, may remove or block messages that do not adhere to such policies. For example, the University of California, San Diego imposed a speech code in 1995 that stated: "The use of University resources such as electronic mail to disparage individuals or groups on the basis of gender, race, sex, sexual orientation, age, disability, or religion, is strictly prohibited and violates University policy." (quoted in Baase, 1997, p. 212). Universities may also monitor speech by eavesdropping on on-line communications and accessing student and faculty files on university servers.

While many forms of content control at universities probably result from efforts to protect individuals and groups from harassment and libel and foster a secure academic environment, there is nevertheless a serious risk that academic freedom and

free speech are limited in the process. The ability to voice unpleasant and dissenting opinions has always been central to academic freedom and to freedom of speech, and a necessary prerequisite for social and intellectual criticism. When student and faculty fear that their electronically communicated views and opinions may be reprimanded or blocked, or worry that their communication may be (anonymously) monitored by parties who are in a position of power relative to them, free speech may be stifled and academic freedom may be hurt as a result. A serious and continuous effort is needed, therefore, to balance any the need to protect individuals and groups from harassment against the need to promote free speech and academic freedom.

Limitations on disciplinary offerings and instruction styles
Not every discipline lends itself well to virtual instruction. Most of the arts (sculpture, painting, dance, theatre, musical performance) cannot be taught in virtual form without essential losses in quality. Courses in the natural, behavioral and life sciences often involve laboratory assignments for which it is difficult or impossible to develop virtual substitutes. And in the social sciences and humanities, close personal and intellectual relationships between students and faculty are often held to be important (Gamson, 1966), and these are difficult to emulate in cyberspace. Virtual instruction hence has various limitations, sometimes shutting out whole subjects, at other times limiting instruction styles and methods. As a consequence, a move towards virtual instruction may also have implications for the freedom to teach: not every subject can be taught in virtual form, and not every teaching goal or teaching style can be realized in cyberspace. Additionally, virtual instruction is heavily dependent on software applications, which do not always have the flexibility to accommodate different teaching styles and formats, which may force educators to mold their teaching to predefined formats. There is a risk, then, that distance-learning initiatives bring along a variety of limitations on the freedom to teach.

Loss of institutional autonomy and the commercialization of education
A number of authors worry that distance education is not driven by educational interests but by commercial ones, and perceive it as part of a move from an academic to a corporate culture in higher education that threatens the institutional autonomy of the university and academic freedom. Claiming that industry is a driving force behind many distance learning initiatives, they worry about a commodification of education, in which education is turned into a marketable product, offered to make a profit rather than to make a contribution to society, and in which faculty members become part of a Tayloristic production system in which they lose academic freedom and intellectual property rights.

David Noble (1998), for example, claims in his much-discussed article "Digital Diploma Mills" that computer-based instruction is part of a recent "commodification of education" which he sees in turn as part of a larger trend towards commercialization of academia. As he claims: "the universities are not simply undergoing a technological transformation. Beneath that change, and camouflaged by it, lies another: the commercialization of higher education. For here as elsewhere technology is but a vehicle and a disarming disguise." He argues that this development is "not about education at all" but is driven by "the vendors of the network hardware, software and "content," who, according to Noble, "view education as a market for their wares".

Likewise, Moll (1998) argues that "the pressure to integrate information technology into the classroom serves to accommodate economic interests seeking mobility and not necessarily the public interest seeking stability" and worries that "shared social responsibilities like public education could fall victim to the pressure to deregulate and disconnect work from geography and corporate interests from responsibility to real communities." (1998, p. 358) And Ross (2000) claims: "Distance learning is a key element in the trend toward commercialization of education … High tech-corporations are eager to partner with universities because they see a great undeveloped market in a $200 billion a year industry and desire the instant integrity that a university partnership can offer to their educational products. University managers fear being behind the curve in the latest fad and worry that commercial online universities will lure away a sizable portion of their student population. As a result, they are willing to follow Taylor's logic and sell their institutions' reputations in exchange for the resources to mount online programs."

But it is not just the IT companies and the competition from commercial online universities that are blamed for the commercialization of education. Many authors point to dwindling public funding for higher education, a problem which is further compounded by an expensive bureaucracy at many universities that puts an additional squeeze on available resources. Some also point to new government policies and laws that undermine institutional autonomy and bolster university-industry ties. Eyal Press and Jennifer Wahburn, in a well-known article in *The Atlantic*, chart the development of what they call the "Academic-Industrial complex" in which not only large amounts of private capital are flowing to universities but universities themselves are beginning to look and behave more and more like for-profit companies (Press and Wahburn, 2000/2001). They identify distance learning as only the latest trend in this commercialization process. And Martin Snyder (2002) claims: "In practical terms, the greatest current threat to both institutional and faculty autonomy comes from the structure and adequacy of funding. The pressure to compromise institutional autonomy and individual academic freedom for scarce resources is strong and pervasive. Public

institutions, lured by the promise of a generous infusion of cash, may seriously consider privatization and with it a narrowing of their sense of social obligation."

The major threat to institutional autonomy for institutes of higher education is hence found in the increasing dependence of universities for their funding on industry, and the increased market competition with commercial organizations. Distance learning initiatives are seen as part of this development, and have been claimed to further undermine institutional autonomy by giving commercial firms powerful new inroads into higher education and by making institutes of higher education dependent on them for part of their funding and infrastructure.

Faculty autonomy and academic freedom also suffer as a result, it has been argued. Noble has argued that distance education in an increasingly commercial system of higher education will turn faculty into production workers: "Once faculty and courses go online, administrators gain much greater direct control over faculty performance and course content than ever before and the potential for academic scrutiny, supervision, regimentation, discipline and even censorship increase dramatically." Noble points out that this process of Taylorization has historically occurred in other "industries", in which the activity of skilled workers has also been restructured, via technology, in ways that have reduced their autonomy and control over their work and has given administrations much greater control over workplace knowledge and workplace activity. Press and Wahburn note the same trend, and worry in particular about the faculties intellectual property rights. As they point out, "Before a university can sell courseware online, it must first control the rights, and that means, in essence, usurping copyright from the creators of the course -- the faculty" (2001, p. 315) As they point out, such rights are sometimes even moved outside the university, to online-education companies. They perceive this development as a direct threat to academic freedom.

Emphasizing that education should continue to serve the public good, authors give various recommendations on how the threat to institutional autonomy and academic they perceive can be countered. Noble argues that faculty should have a decisive influence on whether information technology is used as a supplement or means of alternative delivery to classroom instruction, as they alone, and not administrators, can decide if the technology enhances rather than degrades the quality of education and preserves their academic freedom. Moll pleads for "citizen-based models for the use of technology" in higher education (367). And Press and Washburn argue that top universities should lead the way "by collectively establishing new guidelines designed to preserve academic freedom in all their interactions with industry" and that universities should work harder to make the case for preserving public support for higher education (2001, p. 318).

4. Equality and diversity in the virtual university

As Clark has pointed out in his analysis of values in higher education, social justice has always been a core value in the higher education system. Social justice, Clark writes, means "fair treatment for all," meaning equality and equity for students, but also for faculty and other staff (p. 241). The focus in this section will be on equality and equity for students in the virtual university, a topic on which a number of authors have commented. Clark claims that equality for students in higher education "is taken to consist, in ascending order of stringency, of equality of opportunity in the sense of access, equality of opportunity in the sense of treatment once admitted, and equality of outcome or reward." (p. 241). Based on this distinction, the relevant question to ask is what opportunities or challenges virtual universities offer or pose for equal access to higher education, equal opportunity within the education system, and equality in outcome for students. There have, however, been very few studies that address the issue of equality in distance education, or more generally studies who focus on differences between students in higher education (cf. Institute for Higher Education Policy, 1999). I will confine myself to those few studies that do address this issue.

How may computers and distance learning affect equality in education? Positively, distance education has been argued to be an equalizer by making academic education more accessible. Most importantly, it has been claimed that distance education may shatter geographical barriers to educational access and provide educational opportunities to people who may otherwise have not been in a position to enter the higher education system: people trapped by geographic isolation, economically disadvantaged people, people with health problems or handicaps, people who suffer discrimination, and people with jobs who are unable to relocate to a city with a university (Daniel, 1996 and Jones, 1997). More generally, computer networks have been argued to stimulate equal treatment and equal opportunity within schools because computerized interactions have been claimed to be less threatening and discrimination to be less likely because differences are less visible online (Chester and Gwynne, 1998; Smith, Ferguson and Caris, 2001; though see De Montes et al., 2002, who have found that racial and sexual inequalities may persist in distance education groups and who argue that strong teacher awareness of such inequalities remains a necessity in such groups).

Negatively, it has been argued, distance education, and more generally the extensive reliance on computers in teaching, creates new hurdles for certain groups that may induce new inequalities. This has been the main conclusion of what is currently the most quoted study on equality in distance education, "The Virtual University and

Educational Opportunity" (Gladieux and Swail, 1999a), a study published by the College Board of the United States. Based on empirical data, the authors argue that distance education does not seem to help people low on the socioeconomic scale who have traditionally been underrepresented in higher education (minorities and the economically less advantaged), and in fact seems to create new obstacles for them. Therefore, distance education may work to deepen the divide between educational haves and have-nots.

The authors identify two kinds of obstacles for socioeconomically disadvantaged groups in distance education. First, members of these groups often do not have access to computers and online services at home. And if they do have access at home, or if they make use of computers at a local service point, the quality of the hardware and software is often lacking, resulting in technological problems like equipment malfunctioning, Internet congestion and delay. As the authors claim, "Technical difficulties can befall anyone in cyberspace, and usually do at one time or another, but they disproportionately affect those who have the least ability to pay." (p. 21). A second, perhaps even more important, obstacle for traditionally underrepresented groups is their relative inexperience or even discomfort with computer technology. Gladieux and Swail cite studies that show that prospective college students from underrepresented groups have much less experience working with computers, both in their pre-college education and at home. They infer: "Such disparities could preclude significant numbers of students from participating in the virtual university." (p. 20).

The authors conclude: "The virtual campus may widen opportunities for some, but not by and large for those at the low end of the socio-economic scale, who have traditionally been underrepresented in higher education. Virtual space is infinite, but it does not promise universality or equity, nor is it appropriate for many students whose experience with technology is limited - and who might benefit far more from traditional delivery systems." (p. 22). In Gladieux and Swail (1999b) the conclusion is even harsher: it is claimed that the Internet may become a "new engine of inequality" by reshaping the global market for higher education in a way that may deepen the divide between educational haves and have-nots. Their conclusion can be rephrased to say that the much discussed "digital divide" between the 'information-rich' and the 'information-poor' (Campaine, 2001; Norris, 2001) frustrates the promise of distance education being an equalizer, and in fact only seems to worsen existing divides in higher education.

Although there does not currently seem to be a significant gender gap in higher education (women enter universities in about the same numbers as men), some authors worry that the extensive use of computers and the Internet in schools and universities may create a new gender gap. Studies have indeed shown that a digital divide exists between men and women; though this divide is perhaps less profound than the digital

divides that exist between groups with different economic status, race, and ethnicity. Access is probably not the issue. Sulaiman et al. (2002) found no difference between the level of availability of computers, Internet access and the rate of usage of computers both at home and at the workplace between distance education learners according to gender. However, there may well be a gender gap in knowledge of and attitudes to information technology. Janssen Reinen and Plomp (1997) have found such a gap, claiming: "Females know less about information technology, enjoy using the computer less than male students, and perceive more problems with software." (65). This suggests that women may have a disadvantage to men in distance education settings. Such disadvantages need to be addressed in the virtual university, as well as gender differences in the use of information technology, that have been reported in a number of studies. Herring (1996), for example, found that male users of computer-mediated communication tended toward "more adversarial behavior" while women tended to "more attenuated and supportive behaviors" and concluded that these behaviors correspond to two value systems, "One considers individual freedom to be the highest good, and the other idealizes harmonious interpersonal interaction." (p. 137).

Additional inequalities may arise because of linguistic and cultural hurdles. An initiative is now underway for a Virtual European University, supported by institutes of higher learning from different European Union member states, that would provide college-level instruction for a multicultural and multilingual student population. This kind of university would inevitably bring such hurdles along. How can one make sure that a Virtual European University respects cultural diversity and does not embody cultural presuppositions that put students from certain cultural backgrounds at a disadvantage? How does one balance the need for linguistic diversity against the need of a common lingua franca, and how can it be ensured that students with diverse linguistic backgrounds have equal opportunities within the Virtual European University? And as Alain Dumort, director of the New Technologies in Education and Training division of the European Commission, asks in a paper on distance education in the European Union, "How can diversity of culture and language be valorized in an emerging market dominated by Anglo-American content, supply and technology investment?" (Dumort, 1999).

In a study of cultural and linguistic diversity in virtual instruction in Europe, Van den Branden and Lambert (1999) conclude that "language and other aspects that are typically considered as culture bound, such as (differences in) prior knowledge, cultural subjects, attitudes towards culturally embedded topics, discussion and learning styles, and so forth, remain barriers to transnational educational networks." (p. 200-1). The authors claim that cultural and language problems in transnational education are often underestimated, and that it is moreover difficult to find adequate solutions for them

even if they are recognized (though see Bowers, 1988 for a discussion). Positively, they claim that cultural diversity can also be very stimulating to students, and should perhaps be capitalized on more. Linguistic diversity, however, is mostly just a problem, which as the authors argue perhaps cannot be solved, but can only be made more manageable through the development of language management policies.

To conclude, serious challenges are raised for equality and diversity in the virtual university. These include both inequalities that affect socioeconomically disadvantaged groups, gender inequalities, and equality issues that relate to cultural and linguistic diversity.

5. Ethical student and staff behavior in the virtual university

In sections one and two, it was claimed amongst others that universities serve the function of transferring cultural values, including values of academic integrity and good citizenship. In this section, the focus will be more narrowly on *moral* values, of both students and faculty members. I will address the question of how distance education, and, more broadly, the use of computers in education, changes the settings in which moral values function, for students and staff members. Not all values are *moral* values. As a rule of thumb, moral values concern forms of behavior that may do unjustifiable harm to others, or that are otherwise considered taboo in society. So punctuality, as an academic value, is not a moral value because being unpunctual does not normally cause serious harm to others and does not break a major social taboo. Honesty, in contrast, is usually considered a moral value, because dishonesty is generally considered to be a harmful and therefore unacceptable form of behavior. I will only consider values of this sort.

Hence, my focus will be on the new moral challenges and new possibilities for immoral behavior for students and staff that arise in the virtual university. These moral challenges arise in part because electronic environments afford new types of actions that may require new moral codes, such as copying software and hacking. Yet, they also arise in part because certain types of immoral actions, such as plagiarism and invasions of privacy, are easier to perform in electronic settings, as well as harder to detect or control. What follows are six types of morally questionable behavior that depend on the use of computers and computer networks in education.

- *Digital plagiarism*

Plagiarism has always existed in education, including higher education, where it is one of the major forms of academic dishonesty. Assignments handed in by students may turn out to be copied from fellow students or to be taken over, in part or in whole, from existing published works. In a way, computers and the Internet only add to the means that students have at their disposal to commit plagiarism. However, they make it much easier to do and much harder to detect. As Austin and Brown have argued, plagiarism has become easier for students in two ways: "word processing programs allow students to easily "cut and paste" information from the Internet or other electronic media to develop a paper that appears to be original work" and "students' use of Internet information that may be unavailable in traditional sources makes documenting academic dishonesty more difficult to faculty." (1999, p. 21; see also Hinman, 2002). Particularly worrisome, as they point out, is the existence of "term paper mills," which offer pre-written term papers to students on a range of topics, and many of which also offer to write papers specifically for students for a fee.

- *Breaking copyright and software theft*
  It is well known that the illegal copying of copyrighted media (texts, music works, movies and software programs) is widespread throughout society. Moreover, many people who engage in such activity do not consider themselves to be doing something that is patently immoral. This is certainly true for college students. Cohen and Cornwell (1989) and Glass and Wood (1996), for example, found that a large majority of college students do not perceive the illegal copying of software as unethical.

  This attitude of college students seems to match developments in the current information age, in which the Internet increasingly functions as the most important information medium that people use. Hinman (2002) has argued that the very structure of the Internet undermines the notion of private intellectual property on the web: "The inner dynamic of the Web moves us increasingly toward a much more communal notion of property".   As he explains, the Web stimulates copying because the very nature of browser technology necessitates making copies, because perfect copies can be made at virtually no cost, and because making digital copies does not involve physical theft from the person who owns the original (34). It may be added to this that many information sources on the Web are not obviously copyrighted, and many even lack an identifiable author (Kolko, 2002). Lipinski and Britz (1999) argue, moreover, that digital copying can often be morally, if not legally, defended because of the fact that access to information is a critical need in an age of information that may in some cases override proprietary rights.

Hence, the traditional legal paradigm of intellectual property is increasingly challenged by a new paradigm that emphasizes unrestrained access to, and use of, information. It is difficult to find an adequate moral compass to navigate the new landscape, not only for students, but for staff as well. Moral and legal confusion may moreover also result from the vagueness of "fair use" provisions in copyright law, that do not clearly state when copying for personal use or display in classroom settings is permitted, and from the existence of corporate licenses at universities, or departments therein, that may permit students to freely use or copy media that they do not own themselves.

- *Hacking*
  Hacking is breaking into computer systems for unauthorized purposes, which may be either malicious or nonmalicious. Hacking may involve, for example, snooping around on someone's personal computer through remote access, intentionally modifying or destroying files to which one has not been granted access, releasing computer viruses, stealing passwords or files, exposing personal information, and stealing electronic money (see Forester and Morrison, 1994, ch. 5 and Baase, 1997, ch. 7). Students and staff members at both virtual and conventional universities may engage in hacking for a variety of reasons. They may simply be unaware that they are breaking into a computer system, they may just be curious, they may be out to harm someone, they may want to benefit themselves, or they may have entirely different reasons. Malicious hacking is clearly morally problematic, but nonmalicious hacking has been defended by hackers as morally acceptable and socially harmless or even beneficial (cf. Baase, p. 242). Clearly, universities need clear policies and guidelines on hacking (including policies that define what kinds of computer systems access are unauthorized for whom) and probably need to distinguish malicious from nonmalicious hacking.

- *Improper use of computer resources*
  Hacking is the use of computer resources to which one is not supposed to have access. However, students and staff may also have authorized access to computer resources, but then go on to use these resources improperly. They may have a university Internet account, or they may use a computer system or computer network or computer software that is owned by the university, or they may use computerized services offered by the university, and do so in a way that does not meet the university's standards for proper use of that particular resource. For example, students may use their student account to run their own Internet business,

contrary to the university's policies. Or students may open up a popular website or service that generates loads of traffic that incapacitates the university's server, e.g., peer to peer downloads of MP3 files. Or staff members may use the university's server or computer systems to download or view or store content that is either illegal or against the university's policies (e.g., racist or fascist materials or pornography). Or members of the academic community may spread computer viruses or worms. Clearly, universities need policies regarding the proper use of computer resources in an academic context by students and staff.

- *(Anonymous) harassment and hate speech*
  In virtual universities, there may be various electronic means of communicating messages to other members of the academic community, as well as to persons outside the university: e-mail, electronic bulletin boards, IRC (the exchange of short one-on-one messages without a significant time lag), collaborative virtual environments and web pages constitute some of the most important ones. As in face-to-face communication, these computer-mediated forms of communication can be used to send threatening, obscene, inflammatory or harassing messages. These may include discriminatory messages, used to disparage individuals or groups based on gender, race, sexual orientation, religion, age, or disability. Such messages are generally not considered to be acceptable in an academic setting, as educators strive to ensure that the classroom, if not the campus at large, functions as a safe, nonthreatening environment for students as well as for staff. In this, the same principles apply for virtual classrooms and campuses as for their physical counterparts (cf. Ferganchick-Neufang, 1998).

    Moreover, in curbing harassing and obscene messages, educators will simultaneously have to make sure that they are not unduly limiting free speech (see also the section 3). As Baase has pointed out (p. 212), speech on computer systems is often treated differently from other forms of speech, and there is a tendency for less tolerance for offensive talk that takes place online. If this is true, then extra care must be taken to ensure that student discussion in the virtual classroom can take place as freely as student discussion in the physical classroom. It would be a loss if students would be more hesitant to voice their opinions because they are using an electronic medium.

    A feature of computer-mediated communication that deserves special mention is the ease by which anonymous or pseudonymous messages can be sent, for example through anonymous remailer services. Baase (1997, 214-5) points out that anonymous messages posted over the Internet can have good and bad uses. She claims that anonymity provides protection for victims of violence and abuse and

users of illegal drugs who seek counseling and advice and for whistleblowers who wish to report on unethical or illegal activity in their organization without fear of retribution. However, anonymity can also be used for criminal and antisocial purposes: to perpetuate fraud, to harass people, to threaten or libel people with impunity, and ruin their reputation by spreading rumors (Baase, p. 214-5; see also Kling et al., 2000). (Virtual) universities may hence want to consider having policies for anonymous electronic communication.

- *Breaches of informational privacy and confidentiality*
  Privacy is generally considered to be an individual right in Western countries, and many nations have privacy laws (or data protection laws, as they are sometimes called in Europe). It is nowadays generally recognized that new technologies, and particularly information and communication technologies, raise new privacy issues, for example concerning electronic databases and online privacy (e.g., Cate, 1997; Agre and Rotenberg, 1998). Many of these new privacy issues can be expected to apply to the virtual university. Since a virtual university essentially exists in electronic form, all important activities of members of this university can in principle be monitored or recorded electronically. This includes not only student administration but also classroom discussion, student-to-student and student-to-faculty e-mail contact, and the online behavior of students in general. The walls of classrooms and offices at a virtual university are much more permeable than those of their conventional counterparts, making eavesdropping much easier, and it happens much more frequently that the things that are said and done in them are recorded so as to be available for later scrutiny, or can be copied for distribution.

  At many (conventional) universities, privacy policies remain limited to student privacy policies that protect student records from being accessed by third parties without authorization. Since many student records are nowadays stored in electronic format, these policies must be supplemented with good system security. Electronic records should be adequately protected so as to avoid unauthorized access to them. Many universities nowadays also have policies that address the electronic posting of grades, which are considered to be privacy-sensitive.

  Many more privacy issues can be raised at a virtual university, however. Consider, first, the confidentiality of classroom or group discussion or one-to-one and one-to-many. Can students be sure that these discussions are not logged or monitored by administrators, that they are not made accessible on public networks, and that access to them cannot be easily hacked? In a study of privacy in online learning environments, Tu (2002) argues that class discussions over a connection that is not secure may either inhibit discussion or force students to take risks in disclosing

more personal information. He argues in favor of more private interaction environments, which he claims to be "key to increasing interactivity" (315).   As he claims: "A sound learning environment will allow learners to adjust to the ideal levels of privacy and give students more secure and more comfortable environments to increase their social presence to enhance social interaction" (315).

Other relevant online privacy issues that may occur include:[3]

1. *Personal information on public computers*. When students or staff use publicly accessible computers, they may unknowingly leave personal information behind, such as cached web pages (accessed web pages that are left in temporary storage on the disk drive and may remain there even after a browser is closed) and cookies (small files that are put on a hard disk by a web site to identify users and their preferences), that are then available for inspection by others.
2. *File sharing*. Student or faculty computers may contain software that makes files on them accessible to other users on the campus network and outside without knowledge of the owner, or may allow files to be stored on a central server that are then accessible to others without their permission. This could allow strangers to read these files that may contain personal information.
3. *Publicly accessible databases*. Many universities have databases that have public access, for example databases that contain directories for students and staff. These databases may contain privacy-sensitive information for which students and staff have given no permission.
4. *University web pages and bulletin boards*. Web pages maintained by the university, by faculty or by students may contain personal information that invades the privacy of others. Likewise, postings and repostings (forwarded messages) on bulletin boards or in other electronic forums may contain personal information of third parties for which no authorization has been given.
5. *Search engines*. Search engines can be used to collect personal information about students or staff. Specifically, a university's own search engine may be used to collect personal information that is found on the university's intranet or campus network. If such a search engine has access to many sites, it may give a detailed profile of people. It may tell about a student, for example,

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[3] See, amongst others, the Stanford Privacy Project at
http://www.stanford.edu/group/privacyproject/ and Spinello, 2000, ch. 5.

what courses (s)he is enrolled in, what student groups (s)he is a member of, and what campus events (s)he has participated in.

6. *Third party market research.* Students constitute an interesting population for some marketers and market researchers, and they may try to enlist educators to help them acquire information on students, or solicit directly to students. The data collected by these parties is likely to be privacy-sensitive.

Clearly, then, virtual universities will need privacy policies to protect the privacy rights of students and staff and to create secure learning environments in which members of the community interact with each other on a basis of trust.

6. Policy issues and policy recommendations

The development of virtual universities is clearly an undertaking that raises important social and ethical questions. In this section, some policy issues will be identified based on the discussions in the five previous sections, and general policy recommendations will be made concerning the development, management and administration of virtual universities and university programs.

Policy concerning the role of the university in society

- More research should be performed on societal functions of conventional universities other than the transfer of knowledge and skills through formal instruction, on the societal importance of these functions, and on the incorporation of such functions in virtual universities.

- In developing virtual universities programs, the multidimensionality of conventional universities should be considered, including their functions in social integration, establishing social networks, promoting personal and social change, the offering of extracurricular activities and social services, and the cultural transmission of values. It should be considered how such functions could be incorporated into virtual universities, and, if this cannot be done well, whether omitting such functions is acceptable.

- In developing virtual university programs, special attention should be give to the development of community. In doing this, the question should be addressed to what extent virtual communities can function as genuine communities, and to

what extent virtual environments and interactions must be supplemented by physical places and face-to-face interactions for community development.

Policy concerning the transfer of (academic) values

- More research should be done on the nature of academic values and their transfer in higher education, the importance of face-to-face interactions, apprenticeship and physical communities in the transfer of academic and social values in higher education, and the possibility of such value transfer in distance education settings.

- In developing virtual university programs, it should be carefully considered realistically to what extent the transfer of academic values can be a realistic objective of such programs, and what steps can be taken to create settings and practices that foster the development of academic values in students.

Policy concerning academic freedom and institutional autonomy

- Virtual universities should, like conventional universities, be committed to protecting academic freedom, which includes freedom of research, freedom of learning and freedom of teaching, as well as overall freedom of speech. Their policies and procedures should reflect this commitment.

- Universities should be very cautious about filtering, blocking or removing electronic information or messages, monitoring computer systems and electronic communications of students and staff, and proposing speech codes for electronic communications. If any such actions are to be taken at all, they should respect as well as possible academic and intellectual freedom as well as personal privacy.

- Universities should respect freedom of teaching in their policies regarding the use of information technology in education. Teachers should not be required to use certain technologies if they are not convinced of their educational benefits. Technologies should moreover be designed and implemented with maximum flexibility, to accommodate a wide variety of teaching styles, methods, and subjects.[4]

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[4] See Friedman (1997) on the design of information systems in ways that are sensitive to human values.

- More research is needed on the suitability of virtual instruction for certain disciplines (humanities and social sciences, laboratory sciences, visual and performing arts) and on the possibility that the development of virtual universities will put such disciplines at a disadvantage because they are not well suited to be taught in a virtual setting.

- Universities and governments should work to ensure that the institutional autonomy of universities is preserved, and that distance education initiatives respect principles of institutional autonomy.

- Steps should be taken to ensure that the development of online instruction programs does not lead to a "Taylorization" of higher education, in which administrators exercise strenuous control over faculty performance and course content, and academic freedom is limited as a result.

- The tendering or selling of and distance education courses and courseware should respect the intellectual property rights of faculty.[5]

Policy concerning equality and diversity

- In developing virtual university programs, special attention should be given to equal access for and treatment of minorities and the economically less advantaged, as these groups tend to have less experience with and less good access to information technology.[6]

- In developing virtual university programs, special attention should be given to differences in experience with and attitudes to information technology between men and women, and care must be taken to use teaching methods and tools that are sensitive to gender differences in the use of information technology and that do not contain gender biases.

- In developing transnational or transcultural virtual university programs, special attention should be given to the role of culture and language, so that cultural

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[5] See, e.g., the 2000 statement on distance learning and intellectual property of the American Association of University Professors at http://www.aaup.org/Legal/info%20outlines/legdl.htm.
[6] See Van Dijk (2000) for a general inventory of obstacles and policies for overcoming the digital divide. See Solomon et al. (2002) for a discussion that focuses on education.

diversity is respected and differences in cultural or linguistic background do not unnecessarily place some groups of students at a disadvantage.

Policy concerning ethical student and staff behavior

- More research is needed on ethical issues in online educational settings, on the dynamics of transgressions and conflicts in such settings, and on the functioning of policies that address student and staff behavior in such settings.

- Virtual universities should consider developing policies that address the special ethical issues that emerge in educational settings that depend heavily on information and communication technologies. These policies may include some or all of the following:
    o Policies concerning digital plagiarism and academic dishonesty in online assessment.[7]
    o Policies concerning copyright and software theft.[8]
    o Policies concerning hacking. These should be supplemented by clear access guidelines to different systems and should probably distinguish malicious from nonmalicious hacking.
    o Policies concerning the proper use of computer resources of the university.
    o Policies concerning online anonymity and pseudo anonymity, online harassment and hate speech, which should at the same time, not impose unacceptable limits on free speech.
    o Privacy policies for personal information stored in databases and for online privacy.

Concluding thoughts

Taking values seriously in the development of virtual university programs requires placing these values at the core of every structure and procedure that is developed or used. This requires that such values are taken into account throughout the development of institutional models, curricula, administrative policies, software programs, etc., and

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[7] See Olt (2002) for a discussion of strategies for minimizing academic dishonesty in online assessment.

[8] See, e.g., the 1999 statement on copyright of the American Association of University Professors at http://www.aaup.org/statements/Redbook/Spccopyr.htm

that they function as a continuous touchstone as well as a source of inspiration for their development and use of such structures.   For values to function as such, they must be reflected upon, and be discussed. Reflection on and discussion of values should therefore be considered an integral part of the development of virtual university programs, and should indeed be a recurring activity within universities themselves.

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