Rules and Regulations Concerning Computer Use

A commentary

The following passage appears in *Academic Rules*[1]:

> A computer program written to satisfy a course requirement is, like a paper, expected to be the original work of the student submitting it. Copying a program from another student or from any other source is a form of academic dishonesty, as is deriving a program substantially from the work of another.

Persons who do not know how to program a computer are understandably puzzled about how the concept of plagiarism could possibly be applicable in a computer course. Is a program not an exact object, like a number, and must not any two correct solutions to a programming problem be identical? The truth is quite different. Superficial appearances aside, computer programs more closely resemble essays than numbers. The copyright laws recognize this; so do standards of behavior at Harvard. Two programmers may adopt radically different approaches to solving the same problem, as different as the ideas of two students asked to write critically on the same painting. Very small programs do not admit this much variability in overall design, but anything over a page long certainly does, unless the design itself was specified as part of the exercise. But even when two programs are based on the same overall design, the variation in possible form of expression is vast. Programming courses attempt to teach graceful and forceful forms of expressions for computational ideas, but every programmer has idiosyncrasies of style and vocabulary. The likelihood of two programmers independently creating identical programs of more than two or three lines in length is no larger than the likelihood of two writers independently writing identical paragraphs. And programs that are identical except for their choice of names (for example, one has “x” everywhere the other has “y”) are as improbable as two short stories that are identical except for the names of the characters. Paraphrase is as possible, and as dishonest, with programs as with papers; two programs can be copies of each other even though no single line of one is identical to any line of the other. There should be little confusion about what is legitimate and what is not in the production of a computer program; the rule is simple, simpler than in expository writing, since programming does not involve library research and use of sources: Do not submit as your own work a program based on the work of another! Violations of this rule is plagiarism; it is dishonorable behavior; and the penalty for it is requirement to withdraw from the school.

Two obvious “exceptions” to this rule may be noted in passing. Courses sometimes supply the main idea or even some of the text of a program that is to be completed as an exercise; naturally students are expected to use this assistance. And

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1. Quotes from Academic Rules may not be entirely the same this year; these quotes are taken from a previous year’s student handbook. The spirit of these rules remains the same, however.

there is merit in “copying” from “oneself” in a course that develops cumulative programming skills. Here programs differ from papers; no author would want to write two different pieces with several paragraphs in common, but with computer programs this is not unusual. A skill taught in programming courses is how not to reinvent the wheel; when a small phrase or short sentence has proven useful and reliable in one program, a programmer should feel free to reuse it if the same thing needs to be said in another program. Such clauses play the role of aphorisms; they make a point but they are not the main point of the piece being written.

Of course, neither of these examples obscures the basic point that a program submitted as original work should not have been derived from the work of another unless the course has specifically permitted this.

How much help on a programming exercise may you obtain before you are stealing rather than being assisted? The teaching fellows know the limitations of what is fair and legitimate; their goal is to help you understand how to solve your own problem, not to solve it for you. If you seek help from other students you are treading on much thinner ice. When a student answers a simple factual question which could have been answered out of a manual, no violation of principle is involved; it is not dishonest to ask another student the value of pi or the statement of the Pythagorean Theorem. But the more your request is for part or all of the solution to the exercise itself, rather than for general factual information, the less acceptable it is. In the extreme case one student asks for and receives the actual text of a program which each was to have created independently; in this case **both** students are guilty of academic dishonesty.

Also in *Academic Rules* is a section related to collaboration:

> Students must assume that collaboration in the completion of assignments is prohibited unless explicitly permitted by the instructor. Students must acknowledge any collaboration and its extent in all submitted work.

In some courses students are expected to work in teams on the implementations of very large programs. Just because you see two students huddled over the same terminal and discussing programs in great detail, do not assume that this is standard and acceptable behavior in your course! If you have any doubt about what type of collaboration is permissible, do not make assumptions: ask the instructor. A general argument that you were only doing what you saw others doing is not a legitimate defense.

The indented passages below are from *Regulations for Students*:

> **Misuse of Computer Systems**
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> Students who are provided access to university computer facilities assume responsibility for their appropriate use. Computer programs should be regarded as literary creations and the same standards apply to the misrepresentation of copied work (see *Rules*). More generally, responsible behavior is expected in the use of computer systems. Important but not exclusive concerns are in the following areas:
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> **Privacy of information**

> Information stored on a computer system is the private property of the individual who created it. Examination of that information without authorization from the owner is a violation of the owner's rights to control his or her own property. Time-shared computer systems provide mechanisms for the protection of private information from examination by others; attempts to circumvent these mechanisms in order to gain unauthorized access to private information will be treated as actual violations of privacy.

This means that you should not be snooping in another user's disk area, whether or not the other has left his or her files unprotected, and whether the information stored there is academic or personal. And you should certainly not be trying to crack the protection locks put on files. It doesn't matter whether your intentions are mischievous, malicious, or merely thoughtless; looking at another user's files is no different from rifling through his or her desk drawers.

It is also entirely unacceptable to pick up listings of computer programs or other documents that do not belong to you, either out of the wastebasket or from the printer room.

Rights to privacy notwithstanding, computer and course administrators do have the ability and right to examine your files. You were given your account for some particular academic purpose, so there should be nothing in it you need to hide from authorized personnel. These people do not make a habit of browsing -- but they can investigate suspicious situations.

> **Misuse of accounts**
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> Computer accounts are provided to students for their personal use for specified academic purposes. Accounts have tangible value. Consequently, attempts to circumvent the accounting system, to use without authorization the accounts of others, or to use accounts for other than their intended purposes are all forms of attempted theft. A student who has been given an account may not disclose its password or otherwise make the account available to others.

If your course account becomes depleted and you need more computer resources for your academic work, you should request them through your course instructors. You should not "borrow" the account of another student, nor should you use "ghost" accounts belonging to students not enrolled in the course. Nor may you a lender be; this is like lending your identification card so a fellow student can get something he or she would not otherwise be entitled to. Least acceptable of all, of course, are attempts to obtain multiple or privileged accounts fraudulently, by impersonating another student or otherwise misrepresenting yourself or your intentions.

Do not disclose your password to anyone else, including course staff and computer administrators. If, however, you fear that your password has somehow become known, it only takes a few seconds to change it. Choose your password carefully so that it cannot be guessed or computed by others. For advice, read the document *Choosing a Good Password* from FAS Computer Services.

Use of the computer accounts for commercial purposes is strictly prohibited.

Disruptive and annoying behavior

Students may not attempt to interfere with the normal functioning of a time-shared computer system, and should not disrupt or distract others working with the computer. Use of an electronic mail system to send fraudulent, annoying, or obscene messages is prohibited.

Do not try to “crash” or “break” the system. People’s academic well-being depends on the availability of the computer system, and tinkering with it is no better than setting fire in the library. Should you discover weak spots or loopholes in the computer’s accounting or security system, please report them to the system administrators, so that steps can be taken to repair the problems.

Because of engineering limitations, many students must use a time-shared computer system in cramped quarters and under time limitations. Students are expected to be considerate of others using the computer and not to unnecessarily disturb individuals who are trying to work.

The facilities provided for communication between users of a computer system are analogous to telephone and postal systems, and the same standards of behavior apply. Messages should not be anonymous, fraudulent, or annoying in any way.

Of course, inflicting physical damage to any part of the computer system or otherwise tampering with it will be treated like any other instance of intentional damage to property.

A related concern is with *software piracy*. Unauthorized copying of commercial software is a form of theft. Students should not possess or use copies of software that have not been obtained through legitimate means.

Commercial software used on personal computers is covered by the provisions of copyright law, and sometimes by licenses as well. These restrictions apply whether or not the medium on which the software was originally distributed is “copy-protected” e.g., by specially encoding the information on a diskette to defeat ordinary copy utilities. A person who has bought a commercial software package does not have the right to “give away” copies of it, any more than he or she has the right to distribute photocopies of a book. The recipient is also culpable. Not prohibited in this way are use of “public domain” software, “site-licensed” software, or the making of “backup copies.” Software in the “public domain” generally declares itself as such and does not bear a copyright notice. In a few cases the university may have obtained a special license for broad use of a software package by members of its community under specified conditions. And the legitimate owner of a program is allowed to make a copy of it for protection against loss of the original. These situations are, however, easily distinguished from the illegitimate making or use of copies of software that is originally sold in stores.