



COMMUNICATIONS  
FORUM

DEWEY

NAVIGATING THE PUBLIC DOMAIN

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of the GNU project  
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April 3, 1986

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## Navigating the Public Domain

Douglas Chamberlin - Boston Computer Society

Chamberlin began by defining and describing four types of software: commercial software, user-supported software, questionable software, and public domain software.

Commercial Software (CS) - is software that is legally protected and supported by the company or author that is selling it. Its source code is not available, and is often copy-protected. CS is more expensive than the other three types of software and there is always documentation of some kind that goes with it.

Public Domain Software (PDS) - is the opposite from CS. It has no legal protection, and usually does not have any organized support. PDS often includes the source code (so that anyone can make changes to it), and doesn't cost anything except for distribution expenses. Also there is very little organized documentation to go with it.

User-Supported Software\* (USS) - is between CS and PDS and has only been around for the last couple of years. It is usually copyrighted by the author. It is low cost, has no source code and is often accompanied by documentation.

Questionable Software (QS) - is software whose status is not specifically defined. QS is produced by authors who generally do not understand the legalities of the software and publishing world. As an example Chamberlin cited a program called CED which is usable on IBM Personal Computers (PC), which claims to be both copyrighted and released to the public domain.

Chamberlin then discussed the historical development of PDS. Before the advent of the PC, most software (available on micro computers) was PDS and users were hobbyists or hackers - people who could program, and therefore they could change and modify the software as they saw fit. The software came from bulletin board systems, friends and user groups; distribution was not organized. However, most of the software available now is CS and most computer users today are business people.

Surveying the present situation, Chamberlin stated that there is very little that is new in the PD category whereas there is much that is new in the USS category. Most PDS written in the last 6 months has been the result of special projects and is written for a specific purpose. Very little of the PDS is authored by a single person who found something useful, because in most situations such software is commercialized. This trend has accelerated since most users are business people and not programmers; the users don't want any complications and are just interested in getting their work done. Since source code is generally not available, programs are being written that are very easy to use and still functional. As a result standards become more and more important and he said people are generally sticking to it. Further the growth of 'shareware' has made the standardization issue more important. Most authors of the USS

are not prepared to enforce restrictions so that the issue of ownership may not be all that important. One of the reasons they use the shareware distribution method is that they don't have resources to market the product or to pursue people for breach of copyright. Thus they depend on the good nature of users for financial support.

Chamberlin described successful shareware as software that has mass appeal, and is low cost. It should be very good at what it does, and be supported by a good manual and/or telephone support. Also, to be successful shareware needs to be available for some time.

Finally Chamberlin listed some of the most popular software in current use, almost all of which are user-supported. (See exhibit).

\* - At this point Richard Stallman suggested that the term "User-supported" was inappropriate because it implies a significant difference from Commercial Software in terms of less coercion of the user when really there is no difference.

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Stanley Doherty - Scholastech

Doherty described Scholastech as a non-profit organization that became involved in the public domain issue very early in its life. Their primary task is to serve/support the education market. Scholastech was formed, he said, as the result of incompatibility among MS-DOS machines: For example, how to get a program for the IBM PC to work on a DEC Rainbow.

Scholastech has received a grant from the Foundation for the Improvement of Post-Secondary Education (FIPSE) to do three things: (1) to expose educators to public domain resource material, (2) to evaluate the performance and development potential of the resource material, (3) to construct an argument that PDS and some USS actually belongs in a democratic educational system.

In discussing the channels of distribution for PDS in the context of education, he said that it has to be seen in the context of the people who make curriculum related decisions. On average only 6% of educators have programming experience. 85% of the resources available to educators are commercial and therefore copyrighted. The logic behind much of the selection of material is commercial: People should use a particular system on the chance that students will graduate into a business environment that uses the same system. People also erroneously assume that a commercial house will provide full support. Finally, people believe it is worth having something for which you pay a fee, and

is also attractively and well packaged. The end result of all this is the dominance of commercial software in colleges, and thereby students who have little creativity. Doherty further asserted that people choose commercial programs because they like to establish common denominators for everyone across the country.

Doherty stated that the logic behind Scholastech and its support of public domain user-supported material in education is that it encourages colleges to explore such material well before they begin a course so that they don't get locked into a decision making pattern. He stressed the need for colleges to explore their options ahead of the deadline so that they don't get forced, under a crisis management situation, to choose the most convenient commercial package. Doherty strongly supported public domain user-supported material because the quality is very good. He then listed several software packages available in the public domain that could be used for a wide range of applications. He emphasized that there is a tremendous amount of quality material available that is either public domain or user-supported which can be used very effectively to broaden the minds of students and enhance their capabilities and creativity. He said that the open architecture available in PDS and USS invites an open and creative attitude; that you get a package but what you do with it is very much up to you. He asserted that the attitude of establishing the lowest common denominator is insane.

Doherty stated that Scholastech had investigated several of the software packages available in the public domain and had further developed a number of them. He said that they were committed to basically giving away what they develop and claimed that "the more you give away, the more you get back". He cited situations where people who get something free from the organization often make a useful financial contribution.

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Richard M. Stallman - founder of the GNU project

Stallman began by recounting the history of his involvement with the computer field, going back 15 years to his work at MIT. He stated that he did programming because he enjoyed doing it and wanted to share the programs that were developed with anyone who was interested in using it. However, he asserted that the "social decay" began when people began commercializing their programs, thus obstructing other potential users. He said that this type of action was not productive at all.

Frustrated with the attitude that he saw around him he decided to launch a major effort to produce and disseminate free software - the GNU project. He expects within a year to be able to distribute a package containing among other things a kernel, language compilers, text formatters, an EMACS editor with LISP for extensibility, and possibly a spreadsheet. In defining free software he asserted that it is not a matter of price but rather

a matter of freedom to share the software, i.e., freedom to make copies and give them to others. He stated that he charges money to make and deliver copies, but once the copy is purchased the owner is free to do with it as he pleases. Stallman said that he did not produce programs for the public domain because he wanted to make sure that they stay free, since if a program is in the public domain someone could make a changed version of it and claim it as proprietary. Therefore he puts a copyright notice on the software produced giving users explicit permission to make and distribute copies. He always distributes source code, because not to give people source code is a form of sabotage. He hoped by his work to lead a movement to reject and boycott those who are trying to exercise control over the use and sharing of information by others.

He pointed out that in general there is a great tendency with advancing technology to couple the resulting convenience with control over how we are allowed to use the product. As an example he cited MIT's "experiment" in distributing news articles by radio to PCs. He was of the opinion that the contract to be signed by users was "outrageous" with regard to its covenants prohibiting letting anyone else read the news articles or keeping them longer than 90 days yourself.

Traditionally, he said, it has been considered acceptable to 'reverse engineer' a trade secret. However, nowadays programs are sold with licenses prohibiting reverse engineering. He claimed that the power to prohibit people from doing things is the power to make money.

Stallman said that he would distribute software primarily in two ways - (1) put it on a machine on a nation wide network and let anyone copy it if he wants to, (2) for money he would send a tape. This he considered legitimate because a tape is only for one person at a time who should be willing to pay for having personal attention given to his particular problem. Referring to GNU EMACS - the program he is distributing at present, Stallman said that it is very widely used and people generally find it very reliable. He expected it to replace commercial products, and in this context mentioned that one of the companies competing with it had already left the business.

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#### Speakers' Comments and Responses to Questions

A question was asked as to whether shareware authors are able to encourage users to pay in order to get support in the form of updates/revisions or telephone consultation. Chamberlin commented that this had not been effective in the past. He claimed that the only effective method is to design the program extremely well so that there is no alternative. If such a program is distributed with an abbreviated cleverly written manual that could entice people to want the missing parts, then it is possible that users will get in touch with shareware

authors and pay them for the additional information. Doherty stated that with a shareware system no one makes money and support is very difficult to obtain. At this point Brian Kahin referred to an earlier seminar where the speaker Jim Button claimed that he was making money as a shareware author. Three things that he provides users are (a) enhanced documentation, (b) telephone support, and (c) immediate access to upgrades. The speakers noted that Button was an exception.

In response to the issue of the vast amount of stolen software that has been circulating around, Chamberlin agreed that the number of unauthorized copies was certainly large. He then referred to other destructive software currently in circulation that could cause significant damage to the machine.

Responding to the question of legal definition relating to the public domain, Stallman said that it referred to anything that was not copyrighted.

A member of the audience asked Stallman as to how many people were contributing their efforts to the 'free software' foundation and as to how they are supported. Stallman replied that there were two people (including himself) working full time on GNU while two or three others spend a significant amount of time though working part-time. Replying to the question of financial support for these people Stallman stated that he supported himself by undertaking small amounts of consulting and the part-time workers received a regular income from universities, computer companies, etc. where they generally worked.

Following the earlier comments a member of the audience asked whether this philosophy implied that no one should get paid for writing, to which Stallman replied saying that people should get paid but what was important was that people should not prevent others from passing on the information they had.

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# MOST POPULAR

**PC-WRITE**

**PC-FILE**

**PC-DBMS, FILE EXP**

**PC-TALK**

**QMODEM, PROCOMM**

**ARC**

**LU, SQ, USQ**

**DPATH**

**SEARCH**

**RBBS-PC**

**FIDO, COLOSSUS**

**CED**

**DOSEDIT, RETRIEVE**

**LIST**

**DX**

**SD, SDIR**

**PC-OUTLINE**

**CPA**

**COMPARE, CMP**

**PMAP**

**MAPMEM, MAP**