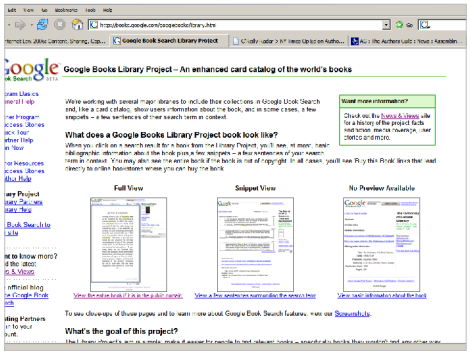
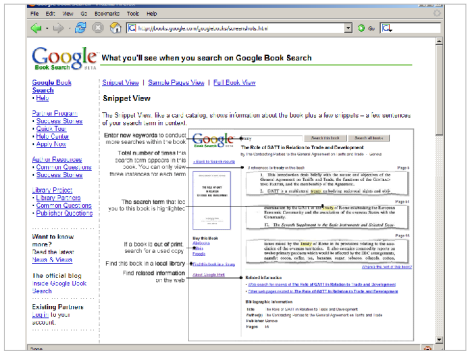
Peer Production and its Licenses

Google Print

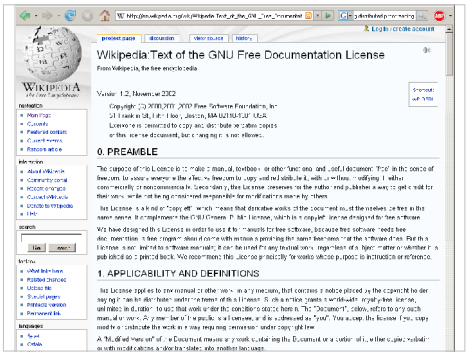
- Google recently announced a new program, Google Print, expanding its search to the library shelves. Google will scan books from libraries (including the New York Public Library) and give the libraries an electronic copy.
- Google will use the scans to add book listings to search results. In response to searches, users will be able to browse the full text of public domain materials, but only a few sentences of text around the search term in books still covered by copyright. Google permits publishers to "opt out" of having their books scanned, but will otherwise scan everything on the shelves.
- Copyright concerns?

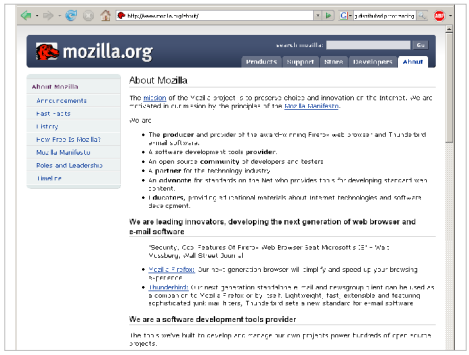


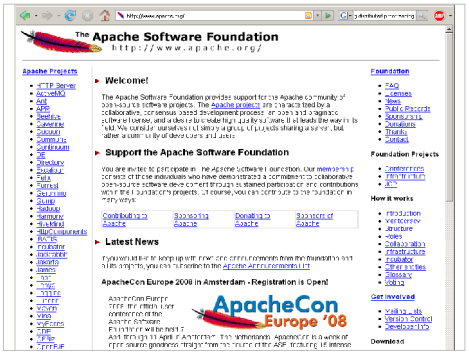


Peer Production

- How does the law help or hurt?







Popular Free or Open Source software

- GNU/Linux operating system
- Apache webserver
- Sendmail email server
- Mozilla web browser
- BIND nameserver

- Major users include: IBM, HP, banks, even law firms

Public Licenses

Free Software Definition

- "Free software'" is a matter of liberty, not price. [free speech, not free beer]
- "Free software is a matter of the users' freedom to run, copy, distribute, study, change and improve the software. More precisely, it refers to four kinds of freedom, for the users of the software:
  - The freedom to run the program, for any purpose (freedom 0).
  - The freedom to study how the program works, and adapt it to your needs (freedom 1). Access to the source code is a precondition for this.
  - The freedom to redistribute copies so you can help your neighbor (freedom 2).
  - The freedom to improve the program, and release your improvements to the public, so that the whole community benefits. (freedom 3). Access to the source code is a precondition for this.

Free Software / Open Source

- Source Code:
  - human readable, "best form for making modifications"

```
void CSSdecrypttitlekey(unsigned char *tkey,unsigned char *dkey)
{
    int i;
    unsigned char im1[6];
    unsigned char im2[6]={0x51,0x67,0x67,0xc5,0xe0,0x00};
        for(i=0;i<6;i++)
        im1[i]=tkey[i];
    CSStitlekey1(im1,im2);
    CSStitlekey2(tkey,im1);
}
```

- Object Code:
  - compiled, executable, much harder to read or modify

```
0000120 6d74 6162 002e 7374 7274 6162 002e 7265
```


Source Code

APPENDIX A: C source file fact.c

```
#include <stdio.h>
void main(int argc, char *argv[]) {
  int i, result;
  result = 1;
  for (i = 1; i<6; i++) {
    result = result * i;
  }
  printf ("Result is:  %d.\n",result);
}
```

David S. Touretzky, Carnegie Mellon University

Object Code

APPENDIX C: binary file fact.o (produced by: gcc -c fact.c;
dumped by: od -x fact.o)

```
0000000 7f45 4c46 0102 0100 0000 0000 0000 0000
0000020 0001 0002 0000 0001 0000 0000 0000 0000
0000040 0000 0234 0000 0000 0034 0000 0000 0028
0000060 0008 0001 002e 7368 7374 7274 6162 002e
0000100 7465 7874 002e 726f 6461 7461 002e 7379
0000120 6d74 6162 002e 7374 7274 6162 002e 7265
0000140 6c61 2e74 6578 7400 2e63 6f6d 6d65 6e74
0000160 0000 0000 9de3 bf88 f027 a044 f227 a048
0000200 9010 2001 d027 bfe8 9010 2001 d027 bfec
...
```

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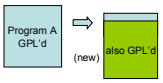
Viral or Antibiotic?

- Sysco Cistems writes embedded networking software. A programmer finds that someone else has written the function she needs, so she incorporates that code into her program. Sysco sells the product without including source code or any reference to third-party code.
- What liability if the code is copyrighted?
- What liability if the code is copyrighted and licensed under the GPL?
- What options does Sysco have in each case?

GPL

Source code must be made available to anyone to whom the program is given or sold

GPL



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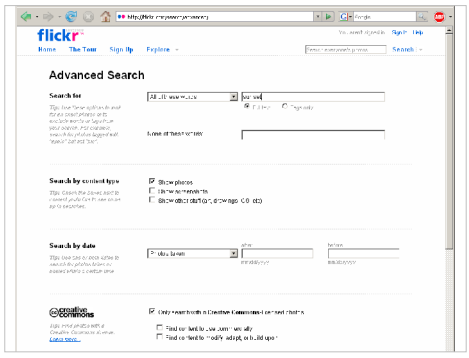

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