





## CS10 The Beauty and Joy of Computing

Lecture #21  
Social Implications III

2014-11-17

**AMAZON IS HIRING DRONE PILOTS!**







UC Berkeley EECS  
Lecturer  
Gerald Friedland

<http://money.cnn.com/2014/11/14/technology/amazon-drone-pilot-hire/index.html>

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## Peer Instruction



What is the biggest impact of digitization?


- People need to learn about binary numbers in school
- Computer can now process data
- Information can be copied without loss
- There is no impact, it's a technicality

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


## Biggest Impact of Digitization

- Digital Information can be copied without loss and at an instant!
  - Analog copying: Always loses information
  - Biological copying: Mutations



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## Copying is easy

```
MyNumber=42
MyCopy=MyNumber
```

- Lossless, instant copying leads to a wealth of societal problems:
  - Privacy issues (previous lectures)
  - Copyright/Copyleft
  - Copyright Enforcement: DRM

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## Digital Millenium Copyright Act



Russel Rains, Lawyer, Prof. St. Edwards University, Austin, TX

<http://www.youtube.com/watch?v=bFLSe1qQUP8>

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## Copyright: A Primer



<http://www.youtube.com/watch?v=Uiq42O6rhW4>

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**Terms to Remember**

- Intellectual Property
- Copyright
- Patents
- Public Domain
- Fair Use
- Expiration of Copyright
- Originality of the Work
- Derivative Work

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**Counterweight: Copyleft**



<http://www.youtube.com/watch?v=u2k07BbPkDk>


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**Some Open Source Licenses**

- GNU General Public License (v2, v3)
- Apache License
- MIT License
- BSD License (Berkeley!)
- Public Domain
- Licenses differ in: Attribution requirements, commercial use restrictions, derivative work restrictions, licenses for derivative work.
- Problems: Binary-code re-uses, API use!

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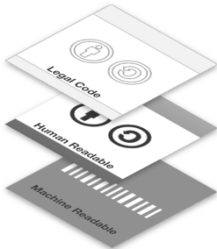
**Counterweight: Creative Commons**



get creative. it's easy when you skip the intermediaries.

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**Layers of Creative Commons Licenses**




- Legal layer: Sustain lawsuits
- Human readable: Understandable for 'everybody'
- Machine readable: Understandable for search engines

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**Types of Creative Commons Licenses**

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 **CC vs Open Source License**


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Creative Commons Licenses are **not** recommended for program code. Instead use open source licenses.

CC does **not** account for:



- patents
- license compatibility
- binary vs source code case distinction

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 **Good to Know!**

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 **Social Implications: A final Video**

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<http://www.youtube.com/watch?v=Zi8cik98YmE>

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