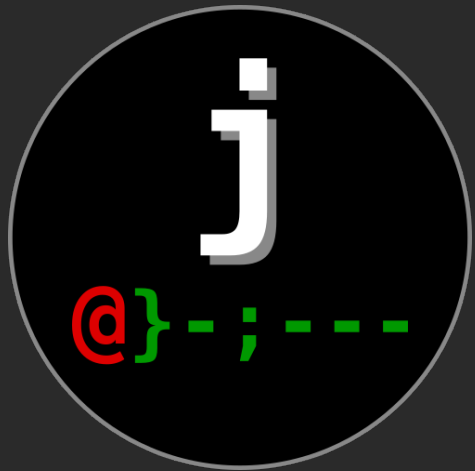


How to Teach Students about Free Software



j u n k t e x t . c o m
Lorem Ipsum

Presented by:
William Paul Liggett

Date and Place:
March 14th, 2020
LibrePlanet 2020
Boston, MA

\$ whoami

Name: William Paul Liggett

Speaks: Java, Python, PHP, & HTML5/CSS3/JavaScript

DBs: MySQL/MariaDB, Oracle, PostgreSQL, SQLite

now(): Assistant Professor at NVCC | junktext.com

Past: Year Up Instructor, PHP/JavaScript Coder,
IT Proj. Mgr., System Administrator, USMC

.edu: M.S. in Information Sys. Tech (GWU)

Bachelor's in IT | Security+, Network+, A+

Concepts Covered

- * **Copyright**
- * **Patents**
- * **Trademarks**
- * **Software Licenses**
 - * **Free Software**
 - * **Proprietary**

Legal Disclaimer

William is not a lawyer and therefore none of the following slides are considered to be expert legal advice.

Seek legal counsel for additional analysis.

However, the information contained is based upon the compilation of many authoritative sources and the practical knowledge of William's experiences.

Copyright, Patents, & Trademarks

Why should you care?

Copyright, Patents, & Trademarks

William's opinion:

- * These legal subjects are the most powerful forces in the worlds of business and technology.
- * You can help understand:
 - * The technologies of the past and present.
 - * How entire organizations think and operate.
 - * Which technologies to study.
 - * How to start your own technology business.

Let's explore: Copyright

What is it and what does it protect?

How do you get it?

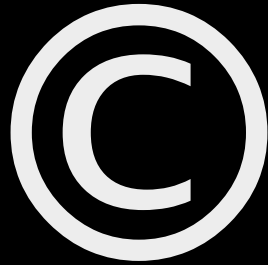
How long does it last?

Let's explore: Copyright

What is the copyright symbol?

Let's explore: Copyright

What is the copyright symbol?



Let's explore: Copyright

What is copyright and what does it protect?

“... protects original works of authorship including literary, dramatic, musical, and artistic works, such as poetry, novels, movies, songs, computer software, and architecture.”

“Copyright does not protect facts, ideas, systems, or methods of operation, although it may protect the way these things are expressed.”

Source: U.S. Copyright Office. (n.d.). *Copyright in General (FAQ)*. Copyright.gov. Retrieved from <https://www.copyright.gov/help/faq/faq-general.html#protect>

Let's explore: Copyright

How do you get copyright protection?

Do you need to register to get it?

Let's explore: Copyright

How do you get copyright protection?

- * Must be **fixed** in a **tangible form** (e.g., paper).
- * It is **protected** the instant the work is created.
- * **Registration is not required!**
- * However, you can register with the **U.S. Copyright Office** for **enhanced legal enforcement**.

Source: U.S. Copyright Office. (n.d.). *Copyright in General (FAQ)*. Copyright.gov. Retrieved from <https://www.copyright.gov/help/faq/faq-general.html>

Let's explore: Copyright

How long does copyright protection last?

Let's explore: Copyright

How long does copyright protection last?

- * Life of the author(s) + 70 years.
- * Or for anonymous work, pseudoanonymous work, or works for hire:

95 years after publication or 120 years from when it was created, whichever expires first.

Source: U.S. Copyright Office. (n.d.). *Copyright in General (FAQ)*. Copyright.gov. Retrieved from <https://www.copyright.gov/help/faq/faq-duration.html#duration>

Example of: Copyright

It can protect software code, like:

```
// Copyright © 2019 by William Paul Liggett
public class MeaningOfLife {
    public static void main(String[] args) {
        double sub = Math.pow(Math.sqrt(-1), 2);
        double calc = 0.0;
        for(int i = 0; i < 4; ++i) {
            calc += Math.pow((47.883 - 8 + 2.991) * sub, 0) + 9;
        }
        calc += Math.PI / (Math.pow(Math.PI, 1)) + (0.2 * 5);
        System.out.printf("The meaning of life is: %.0f", calc);
    }
}
```

If we found this code posted on the Internet, could we use it?

```
// Copyright © 2019 by William Paul Liggett
public class MeaningOfLife {
    public static void main(String[] args) {
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    }
}
```

No, we need permission from the author!

Another example...

**The code will be the same,
but the scenario is different.**

What if there's no "Copyright ©"
notice. Can we use it now?

```
// By: William Paul Liggett
public class MeaningOfLife {
    public static void main(String[] args) {
        double sub = Math.pow(Math.sqrt(-1), 2);
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        System.out.printf("The meaning of life is: %.0f", calc);
    }
}
```

No, as copyright protection is automatic.
So, we need permission from the author!

Another example...

**The code will be the same,
but the scenario is different.**

The author is unknown and it's on the Internet. Can we use it now?

```
public class MeaningOfLife {
    public static void main(String[] args) {
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        System.out.printf("The meaning of life is: %.0f", calc);  
    }  
}
```

No, as copyright protection is automatic and lasts for 95 / 120 years for anonymous works.

Let's explore: Patents

What is it and what does it protect?

How do you get it?

How long does it last?

Let's explore: Patents

What is the patent symbol?

Let's explore: Patents

What is the patent symbol?

Trick question! There is no symbol for a patent, just **text phrases**, such as:

- * **Patent Pending** [When filed but not awarded yet.]
- * **U.S. Pat. No. D604,305** [Patent obtained.]
- * This is the Design Patent granted to Apple for a grid of colorful icons.

Let's explore: Patents

What is a patent and what does it protect?

“A patent for an invention is the grant of a property right to the inventor, issued by the United States Patent and Trademark Office.”

Three Types:

1. Utility Patents: New and useful machines, objects, or improvements.
2. Design Patents: New, original, and ornamental designs for an object.
3. Plant Patents: Literally, a new plant that you can grow.

Let's explore: Patents

How do you get a patent?

Do you need to register to get it?

Let's explore: Patents

How do you get a patent?

- * Prepare a long, detailed explanation of how your invention functions and submit it to the **U.S. Patent and Trademark Office (USPTO)**. Therefore, **registration is required**, as:
 - * A patent is the **trade-off** of allowing an inventor the ability to **make money exclusively without competition** **“in exchange for public disclosure of the invention.”**

Let's explore: Patents

How long does a patent last?

Let's explore: Patents

How long does a patent last?

“Generally, the term of a new patent is **20 years** from the date on which the application for the patent was filed in the United States ...”

Let's explore: Trademarks

What is it and what does it protect?

How do you get it?

How long does it last?

Let's explore: Trademarks

What is the trademark symbol?

Let's explore: Trademarks

What is the trademark symbol?

Quasi-trick question. There are three symbols:

TM

SM



Let's explore: Trademarks

What is a trademark and what does it protect?

“A trademark is generally a word, phrase, symbol, or design, or a combination thereof, that identifies and distinguishes the source of the goods of one party from those of others.”

“A service mark is the same as a trademark, except that it identifies and distinguishes the source of a service rather than goods.”

Let's explore: Trademarks

How do you get a trademark?

Do you need to register to get it?

Let's explore: Trademarks

How do you get a trademark?

TM Trademark: A physical product (e.g., car).
* Registration is not required. Has basic legal protection.

SM Service Mark: A useful service (e.g., plumber).
* Registration is not required. Has basic legal protection.

® Registered Mark: A registered TM/SM with **USPTO**.
* Has enhanced legal protection.

Let's explore: Trademarks



Starbucks logo: https://upload.wikimedia.org/wikipedia/en/thumb/d/d3/Starbucks_Corporation_Logo_2011.svg/1200px-Starbucks_Corporation_Logo_2011.svg.png

E-Z Pass (SM): https://upload.wikimedia.org/wikipedia/en/thumb/3/38/EZPass_logo.svg/1920px-EZPass_logo.svg.png

E-Z Pass ®: <https://midatlantic.aaa.com/-/media/Images/Ecommerce/Vendor/E/EZPassVA/EZVA1.ashx>

Let's explore: Trademarks

How long does a trademark last?

Let's explore: Trademarks

How long does a trademark last?

Non-Registered Marks: TM / SM

* **Indefinite (forever)** as long as the product / service is still being sold by the source (person or business).

Registered Marks: ®

* **Same as above** and renewal documents with the **USPTO** between the **5th** and **6th** year, and every 10 years thereafter.

Source: U.S. Patent and Trademark Office. (2019). *Trademark FAQs: How long does a trademark registration last?* USPTO.gov. Retrieved from <https://www.uspto.gov/learning-and-resources/trademark-faqs>

Copyright, Patents, & Trademarks

Special Topics

The following are recommended subjects to be studied on your own time:

- * Digital Millennium Copyright Act (DMCA) and the effects of Digital Rights Management (DRM) technology.
 - * Opponents of DRM label it as “Digital Restrictions Management”.
- * Anti-piracy laws and the potential for censorship.
- * Legal agreements that confuse users from knowing the full amount of data collected by an app (Facebook: EQ [Pat #: [US20150242679](#)]).
- * Patents for simple ideas (e.g., a grid of colorful icons).

Software Licenses

- * **Software** (program/code) is protected under **copyright laws**.
- * **Software Licenses**: Legal agreement that explains what you can or cannot do with the software.

Free Software

Proprietary

Free Software

Freedom to: 0) Run 1) Study & Modify
2) Redistribute 3) Distribute Modified Versions

Proprietary

No guaranteed freedoms.

Free Software

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No guaranteed freedoms.

EULA

Free Software

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Proprietary

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EULA

Freeware

Free Software

Freedom to: 0) Run 1) Study & Modify
2) Redistribute 3) Distribute Modified Versions

Proprietary

No guaranteed freedoms.

EULA

Freeware

Trialware

Free Software

Freedom to: 0) Run 1) Study & Modify
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No guaranteed freedoms.

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Freeware

Trialware

**NO LICENSE
AT ALL!**

Free Software

Freedom to: 0) Run 1) Study & Modify
2) Redistribute 3) Distribute Modified Versions

Proprietary

No guaranteed freedoms.

Copyleft

Permissive

EULA

Freeware

Trialware

**NO LICENSE
AT ALL!**

Free Software

Freedom to: 0) Run 1) Study & Modify
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Proprietary

No guaranteed freedoms.

Copyleft

Permissive

Strong

Weak

EULA

Freeware

Trialware

NO LICENSE
AT ALL!

<p style="text-align: center;">Free Software</p> <p>Freedom to: 0) Run 1) Study & Modify 2) Redistribute 3) Distribute Modified Versions</p>		<p style="text-align: center;">Proprietary</p> <p>No guaranteed freedoms.</p>
<p style="text-align: center;">Copyleft</p>		<p style="text-align: center;">Permissive</p>
<p style="text-align: center;">Strong</p>	<p style="text-align: center;">Weak</p>	<p style="text-align: center;">EULA</p>
<p style="text-align: center;">GPL (GNU General Public License)</p> <p style="text-align: center;">AGPL (GNU Affero GPL)</p>		<p style="text-align: center;">Freeware</p>
		<p style="text-align: center;">Trialware</p>
		<p style="text-align: center;">NO LICENSE AT ALL!</p>

Free Software		Proprietary No guaranteed freedoms.
Freedom to: 0) Run 1) Study & Modify 2) Redistribute 3) Distribute Modified Versions		
Copyleft		EULA Freeware Trialware NO LICENSE AT ALL!
Strong	Weak	
GPL (GNU General Public License)	LGPL (GNU Lesser GPL)	
AGPL (GNU Affero GPL)	MPL 2.0 (Mozilla Public License)	
Permissive		

Free Software			Proprietary
Freedom to: 0) Run 1) Study & Modify 2) Redistribute 3) Distribute Modified Versions			No guaranteed freedoms.
Copyleft		Permissive	EULA
Strong	Weak	Apache License 2.0 BSD 3-Clause X11 License	Freeware
GPL (GNU General Public License)	LGPL (GNU Lesser GPL)		Trialware
AGPL (GNU Affero GPL)	MPL 2.0 (Mozilla Public License)		NO LICENSE AT ALL!

Free Software

Freedom to: 0) Run 1) Study & Modify
2) Redistribute 3) Distribute Modified Versions

Proprietary

No guaranteed freedoms.

Copyleft

Permissive

Can become:

Strong

Not allowed:

Proprietary

GPL

Weak

Allows for:

Proprietary

MPL 2.0

BSD
3-Clause

Proprietary

(Read the EULA)

Example of using the GNU Affero GPL 3

Put in every source code file, at the top:

```
// <one line for program's name and a brief idea of what it does.>  
// Copyright © <year> by <name of author>
```

```
/* This program is free software: you can redistribute it and/or modify  
it under the terms of the GNU Affero General Public License as  
published by the Free Software Foundation, either version 3 of the  
License, or (at your option) any later version.
```

This program is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
GNU Affero General Public License for more details.

You should have received a copy of the GNU Affero General Public License
along with this program. If not, see <<https://www.gnu.org/licenses/>>. */

Example of using the GNU Affero GPL 3

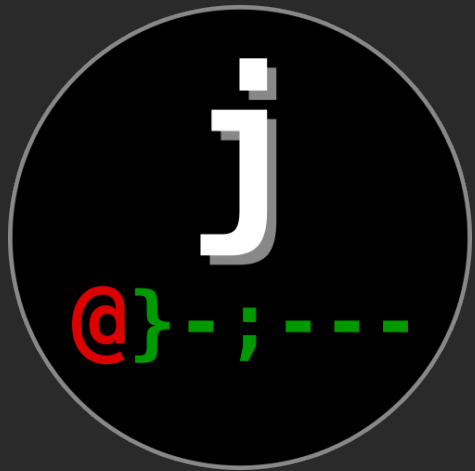
Finally, do the following:

1. Download the entire AGPL license text:
<https://www.gnu.org/licenses/agpl-3.0-standalone.html>
2. Put that license file in the program's main directory that'll be distributed to others.
3. Rename the "agpl-3.0-standalone.html" file to be called either "COPYING.html" or "LICENSE.html".

Any questions...

?

Please keep in touch!



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Lorem Ipsum

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