



GPL, MIT, BSD, OSS (and me)

# Introduction to Open Source

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✂ OSS encourages  
code distribution  
✂ (so you can sell  
expensive things  
*on top of code*)

OSS saves  
engineering  
time and  
money

✂ OSS robust (lots  
of people working  
on errors)

**OSS is risky!**

✂ some OSS is  
really good

# back to basics – copyright 1

## • copyright protects **copyright works**

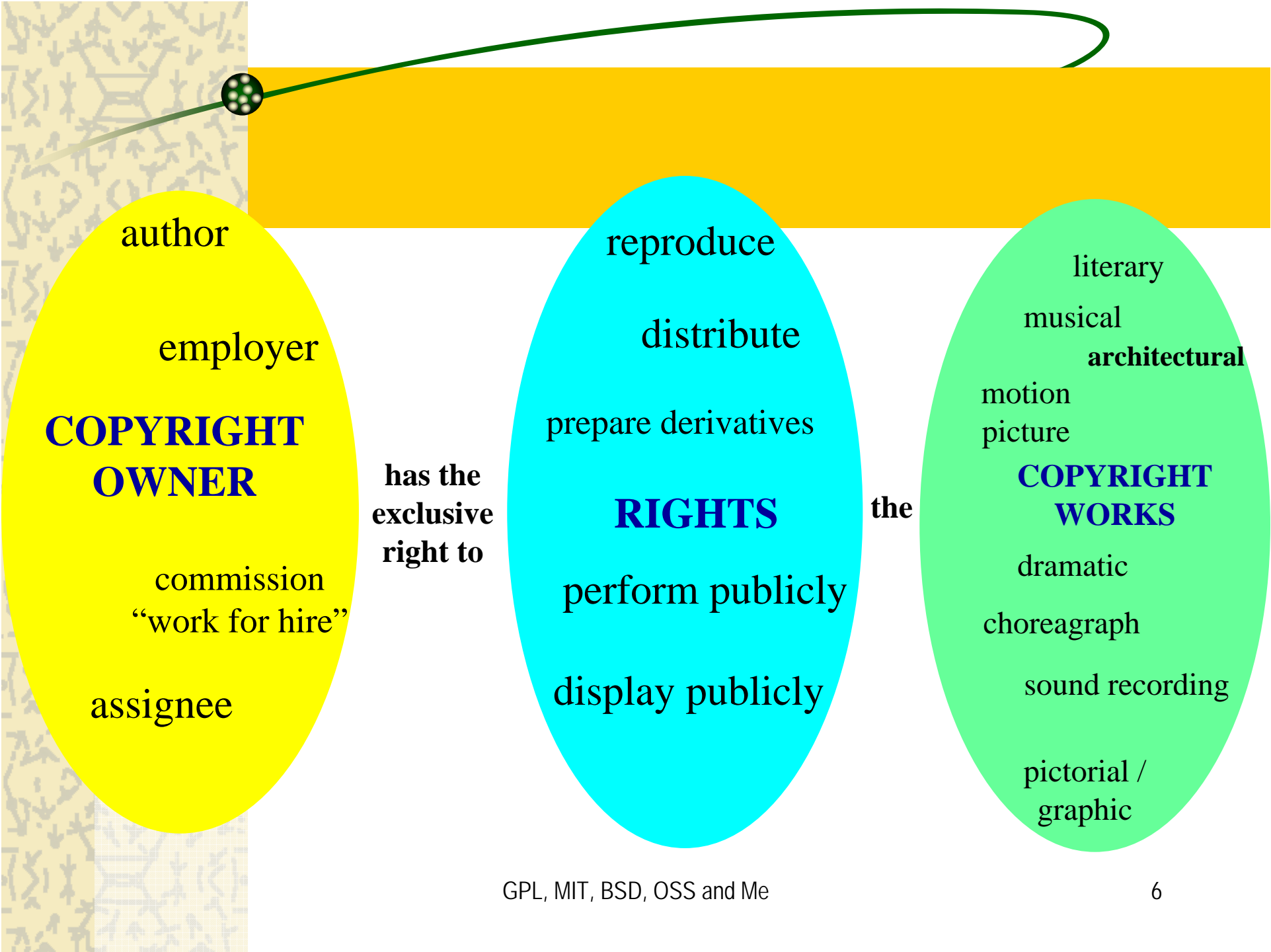
- copyright works includes literary works
- literary works includes software programs / lines of code
- the **copyright owner** of copyright works is
  - the author / the programmer
  - the author / programmer's employer
  - the person who commissioned the author / programmer  
(*only in US "work for hire"*)

## back to basics – copyright 2

- ✚ copyright gives copyright owner **rights** in the copyright work
  - copyright rights include reproduction / copying
  - reproduction / copying includes copying someone else's code into your code
- ✚ copying right includes copying the **whole or a substantial part**
  - you don't have to copy the whole program
  - it is enough if you copy a few important lines

# back to basics – copyright 3

- ✦ if you want to exercise copying right, you need to
  - own the rights – get an **assignment** from the copyright owner
  - get the owner's **permission** – get a **licence** from the copyright owner
- the assignment or the licence is a **contract**, just like any other contract
- the copyright owner can impose **conditions** in the contract
- if you **don't comply with the conditions** then there is no contract – so you are **breaching copyright**





and open source?

- ✦ how is open source software different from
- ✦ copyright software?

ITS NOT

# open source software and copyright

- ✦ open source software is a **copyright work**
- ✦ the **copyright owner** is the author of the code
- ✦ if you want to **copy** the code, you need to get the **copyright owner's permission**
- ✦ the copyright owner gives you permission in a **licence**
  - ✦ **ITS THE CONDITIONS IN THE LICENCE**
  - ✦ **THE CONDITIONS IN THE LICENCE IS WHAT MAKES IT OPEN SOURCE**





## conditions in the licence

- ✦ the author of the code decides to impose "open source" conditions
- ✦ anyone who copies the code has to comply with the "open source" conditions
- ✦ if you don't comply with the "open source" conditions, you don't have the owner's permission and you are breaching copyright

# freedom to play!

freedom  
to add /  
delete

freedom  
to change

freedom  
to use  
for any  
purpose

freedom to  
distribute to  
anyone

who are  
we playing  
with?

will community  
exist for whole  
product  
lifecycle?

**BU**

licence  
conditions

"as is"  
no indemnities  
no warranties



# who are we playing with?

- ✚ analyse OSS community as if they were a supplier / strategic partner
- ✚ values – SMASH C@PIT@LI\$M!!! or professionals
- ✚ code – quality of code, is it a meritocracy?
- ✚ licence conditions
- ✚ what are the consequences if we misbehave

# will community be around for my product lifecycle

- ✖ company has responsibility for product for **whole** product lifecycle
- ✖ will community continue for whole of product lifecycle?
- ✖ will community support code for whole of product lifecycle
- ✖ will community's roadmap match my roadmap?
- ✖ **may need to foster and steer community**

any  
distribution  
has to  
include  
source code

any distribution  
has to be on  
same  
conditions

royalty  
free

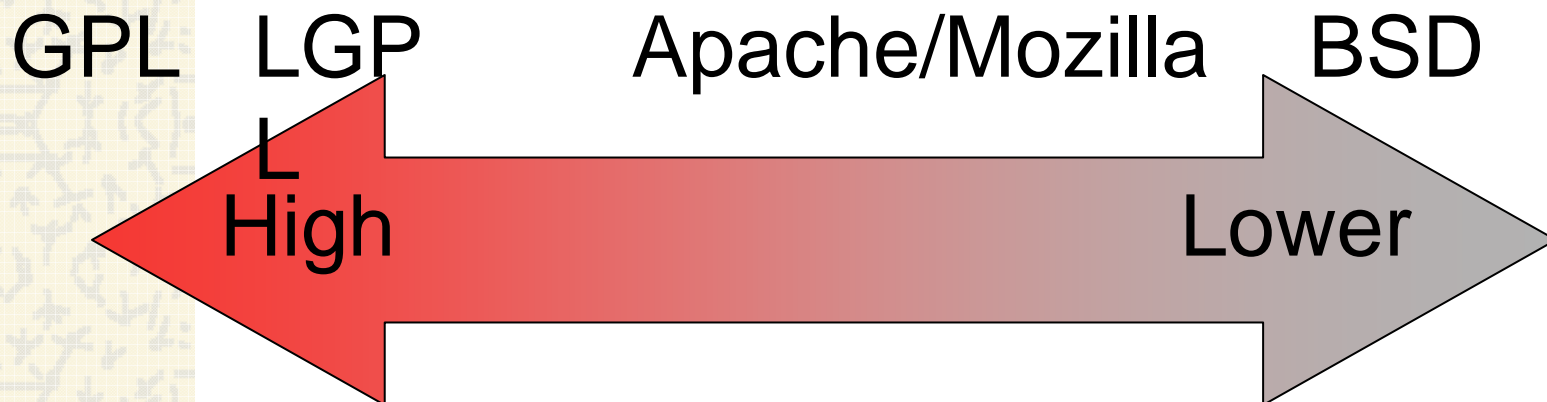
## licence conditions

"as is"  
no indemnities  
no warranties

conditions  
also cover  
any changes  
*you* make  
and  
derivatives

# what are open source conditions

- ✦ GPL <http://www.gnu.org>
- ✦ Apache <http://www.apache.org/licenses/LICENSE-2.0>
- ✦ Mozilla <http://www.mozilla.org/MPL/MPL-1.1.html>
- ✦ MIT <http://www.opensource.org/licenses/mit-license.php>
- ✦ BSD <http://www.opensource.org/licenses/bsd-license.php>



# open source conditions

	copyright notice	copy of licence in source code	copy of licence in materials	royalty free	provide source code	covers modifications	covers combinations of OSS code and other code in one program
BSD	X	X	X				
MIT	X	X		X			
Apache	X	X	X	X			
Mozilla	X	X		X	X	X	
GPL	X	X			X	X	X



# manage open source risk

- ✚ use open source
- ✚ BUT manage the risk
- ✚ *compliance* – comply with licence
- ✚ AND *compatibility* – OSS and your code / product
- ✚ OSS planning part of design – **otherwise too late**

# BSD

- ✖ can redistribute in source or binary
- ✖ copy of licence and copyright notice
  - in source code if distribute source
  - in materials if distribute binary
- ✖ name of creator / contributors not used to endorse derived code / products
- ✖ "as is", no warranty
- ✖ **NOTE no obligation** to distribute source code
- ✖ **NOTE no obligation** royalty free
- ✖ **NOTE no obligation** modifications / derivative works

# MIT

- ✚ royalty free
- ✚ can deal in the Software including use, copy, modify, merge, publish, distribute, sublicense and/or sell
- ✚ copy of licence and copyright notice in copies or substantial portions of software
- ✚ "as is", no warranty
- ✚ **NOTE no obligation** to distribute source code
- ✚ **NOTE no obligation** to include notice in materials
- ✚ **NOTE no obligation** modifications

# Apache 1/

- ✦ royalty free
- ✦ copyright licence - reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form
- ✦ patent licence – make and have made, use, sell, import and transfer, to extent contribution necessarily infringes (terminate if you bring patent lawsuit)

# Apache 2/

- ✦ if reproduce and distribute copies / derivatives
- ✦ provide copy of licence (*doesn't say where*)
- ✦ modified files carry notice that you changed
- ✦ attributions in NOTICE txt file must appear in derivatives NOTICE txt file, source code, materials or display (*you can also add yours*)
- ✦ can add / change terms that apply to your modifications / derivatives (provided consistent)

# Apache 3/

- ✖ "as is", no liability, no indemnity
- ✖ any contribution *intentionally submitted* for inclusion covered by licence *unless* say otherwise
- ✖ can charge fee for support, warranty and indemnity, *but* solely responsible and indemnify other contributors if they are liable because of yr indemnity
- ✖ **NOTE no obligation** distribute source code
- ✖ **NOTE no obligation** your modifications / derivatives *provided* comply AND not intentionally submitted

# Mozilla Public Licence

## ✚ royalty free

- IPR rights (except TM and patent) - use, reproduce, modify, display, perform, sublicense and distribute
- patent rights - make and have made, use, practice, sell, dispose of, to extent contribution necessarily infringes

## ✚ your modifications covered by licence

## ✚ *provided* make commercial use of original code / modifications

## ✚ can charge fee for support, warranty and indemnity, *but* solely responsible

# Mozilla Public Licence

- ✎ "as is", no warranty
- ✎ if distribute source, must include copy of licence
- ✎ if distribute binary, must make source available
- ✎ (include notice in materials that source available)
- ✎ include file documenting changes that you made
- ✎ include Mozilla Exhibit A notice in each file of source code or in directory if no files
- ✎ **NOTE no obligation** combined code
- ✎ **NOTE only applies if make commercial use**





# ● GNU – GPL – General Public Licence /1

- copy and distribute exact copies received
  - publish copyright notice/ warranty disclaimer
  - keep notices refer licence / warranty disclaimer
  - provide copy of licence
  - must provide source / offer to provide source

- ✦ if copy or distribute modifications / derivatives
  - notice on modified files that you changed

# GPL 2/

## ✦ if distribute modifications

- licensed to all 3<sup>rd</sup> parties without charge (ie any 3<sup>rd</sup> parties who receive down the chain don't have to pay you a fee)
- provide source / offer to provide source
- If program reads interactively, cause it when started to print or display an announcement
  - » copyright notice / warranty disclaimer
  - » users may redistribute the program under these conditions
  - » how user can view licence
- modifications includes combined works *unless*
  - identifiable sections that are separate and independent
  - distributed as separate works

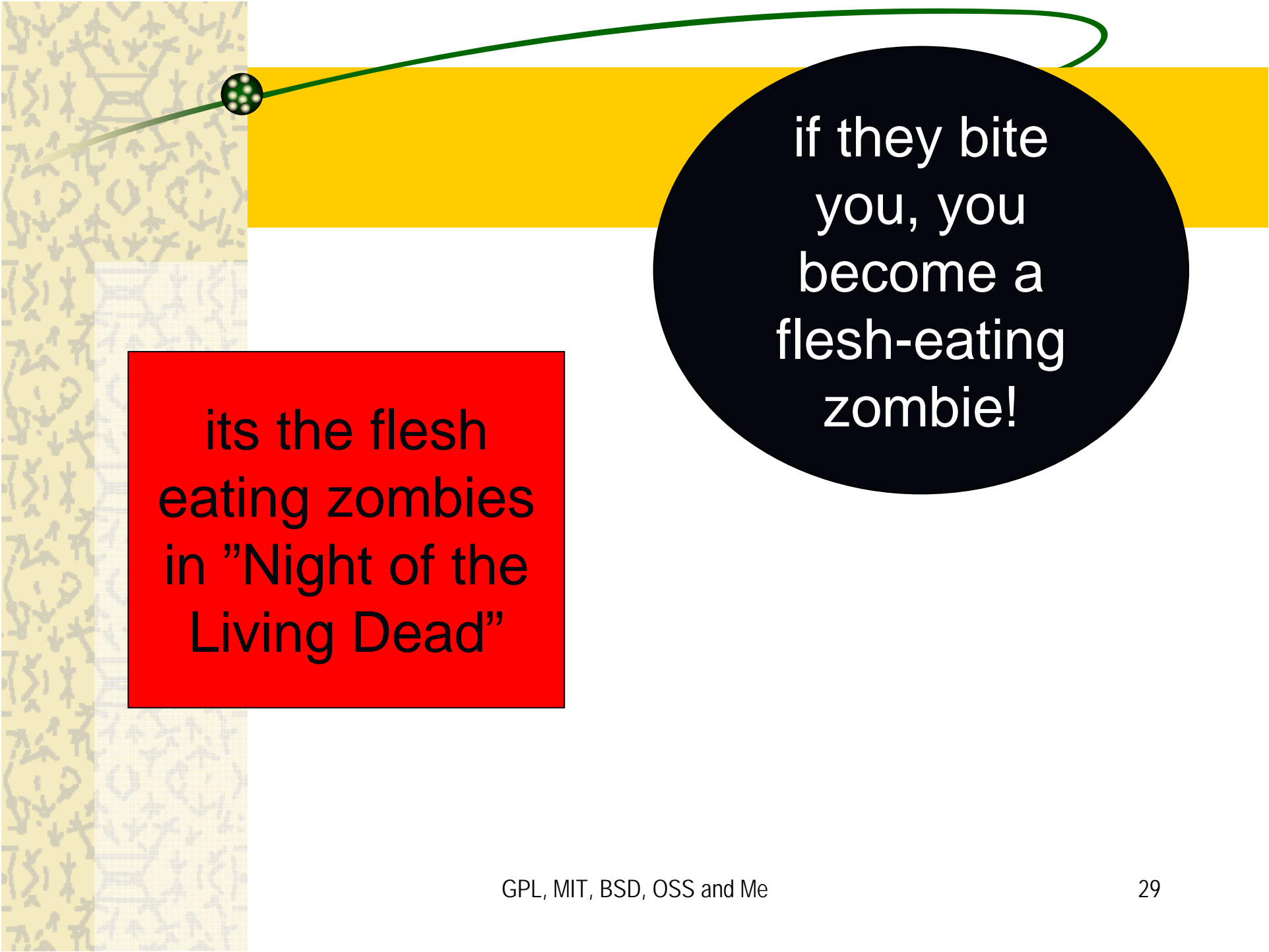


# GPL 3/

- "as is", no liability, no indemnity
- can't impose other restrictions on rights
- can charge fee for physical copy and warranty
- NOTE only applies if distribute
- NO OBLIGATION royalty free

## why is this an issue - changes and derivatives

- ✦ if you change code / write code based on other code
- ✦ you own and control the new code / changes to code
- ✦ *subject to* the rights in the original code
- ✦ you can decide how code is used – can impose conditions on use
  
- ✦ *unless the underlying code is open source*
- ✦ it doesn't matter who owns the new code / changes to code
- ✦ the owner can't choose its own conditions on use of code
- ✦ **all code based on open source code becomes open source code and subject to open source conditions**



**its the flesh  
eating zombies  
in "Night of the  
Living Dead"**

**if they bite  
you, you  
become a  
flesh-eating  
zombie!**

# whats a derivative?

- ✦ *Apache* - any work, whether in Source or Object form, that is based on (or derived from) the Work
- ✦ **NOT** works that remain separable from, or merely link (or bind by name) to the interfaces of the work
  
- ✦ *GPL* work based on the program
- ✦ combining modules
  - depends on
    - mechanism of communication (exec, pipes, rpc, function calls within a shared address space)
    - semantics of the communication (what kinds of information are interchanged)
  - same executable file
- **NOT** mere aggregation, **NOT** same storage or distribution medium

# why is this an issue – no indemnities

- ✖ a company cannot launch a commercial product ”no indemnities, no warranties”
- ✖ a company is liable for products it puts on the market
  - breach of IPR
  - product defects
- ✖ **BUT**
- ✖ you cannot rely on any indemnities and warranties from any supplier of the code – the licence says ”no indemnities”
- ✖ you cannot rely on the good reputation / good working practices of the supplier – who knows who wrote the code?



## why is this an issue – distribution on same conditions

- ✖ some open source licences royalty free
- ✖ you need to charge money for its products
  
- ✖ some open source licences allow further distribution
- ✖ you needs to stop customers from further distributing the products – otherwise potential customers will get the products from your customers instead of you!





## why is this an issue – distribute source code

- ✖ you operate in a tough market
- ✖ your source code gives you a market advantage
- ✖ your source code is a critical trade secret
  
- ✖ if you distribute your source code, it could be distributed to one of your competitors!



## why is this an issue – distribute source code

- ✖ the Patent Office will only grant a patent if an invention is "new"
- ✖ "new" means new in the public area
- ✖ if you distributes source code, the source code is public
- ✖ you have lost your right to patent