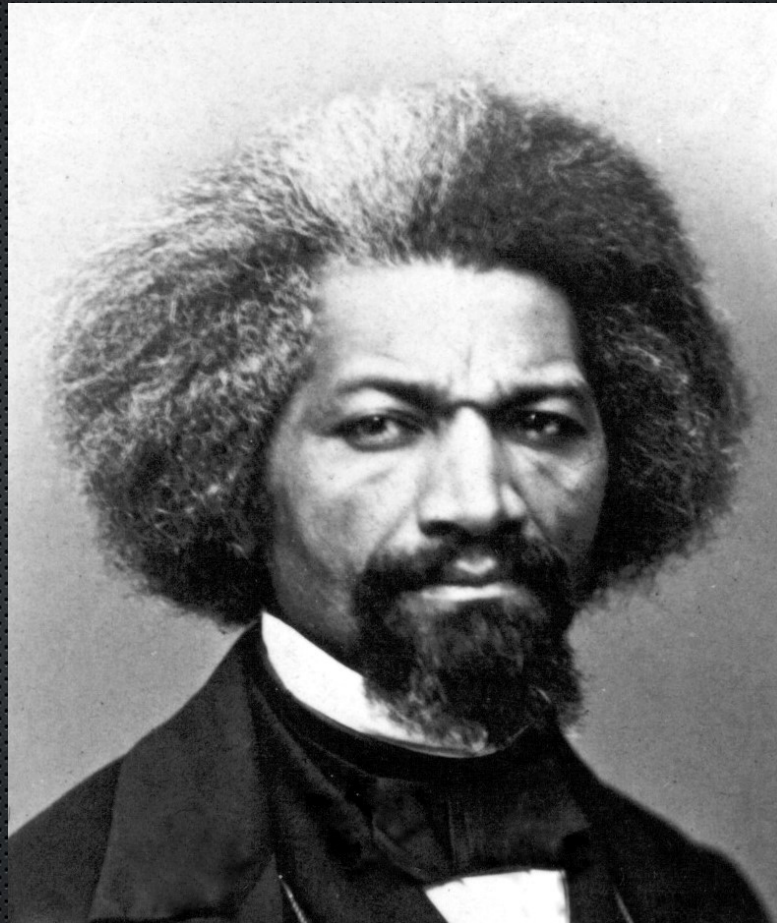


LIS-3353

Anonymity



How did he learn he was a slave?





# Encryption $\neq$ Anonymity

- They are related, but can be different.

Encryption = hides the **contents of the message**

Anonymity = hides the **identity of the sender**



# Why Anonymity?

Shouldn't you always be personally responsible?

(similarly, why encryption?)



“Great invention..  
..can you disable the “bank robbery getaway” function?





# Re: Dangerous Techs

- Yes, new dangers are created but...
- - there are legitimate needs
- - there will be a demand →
- Someone WILL have it, ergo better to decentralize/democratize it.



Anonymity: these guys liked it...





# History of Anonymity

- “Silence Dogood”

Constitutional-ish

(it doesn't say “right to anonymity,” per se...  
..but it doesn't say “right to privacy” either..)

..and don't forget the most important  
anonymous speech of them all....



# VOTING!



We say “secret” ballot, but that's technically wrong....think about it.



# Reduction of personal risk

- - whistleblowers
- - crime victims
- - (literal) minorities
  - sometimes good ideas are (really) unpopular.
- - it's part of the 1<sup>st</sup> amendment.



# How to do it online

- No magic math here, unlike encryption..
- 
- But we can use real life analogies



# A Trusted 3<sup>rd</sup> Party

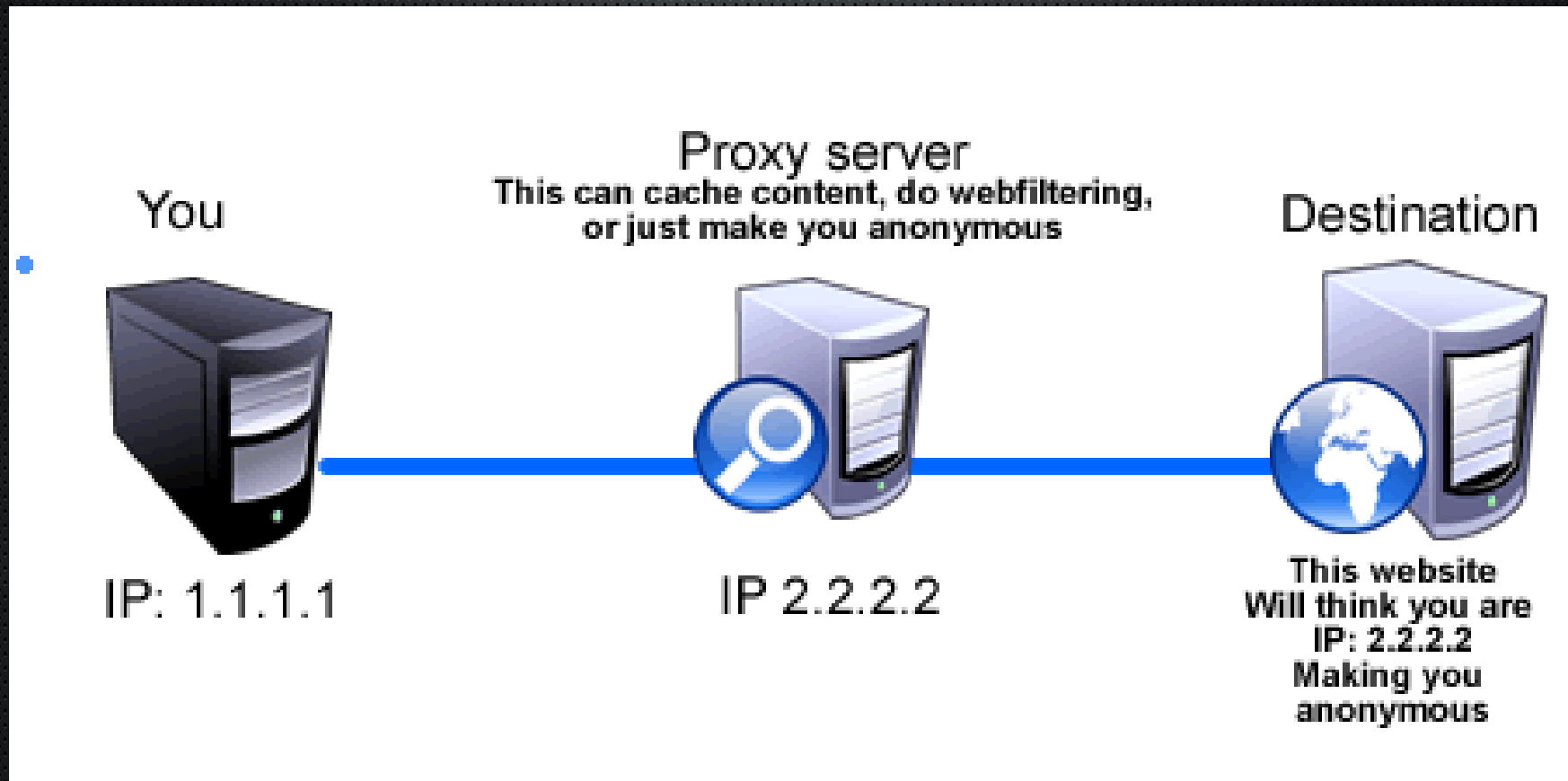
- This is good --- but only as good as the 3<sup>rd</sup> party.

Stranger? Can you trust them?

- Close friend? But what about
  - - detection
  - - selling out
  - - endangering the friend?



# 3<sup>rd</sup> Parties online = Proxy





Lost in the crowd?



“I am Spartacus!”



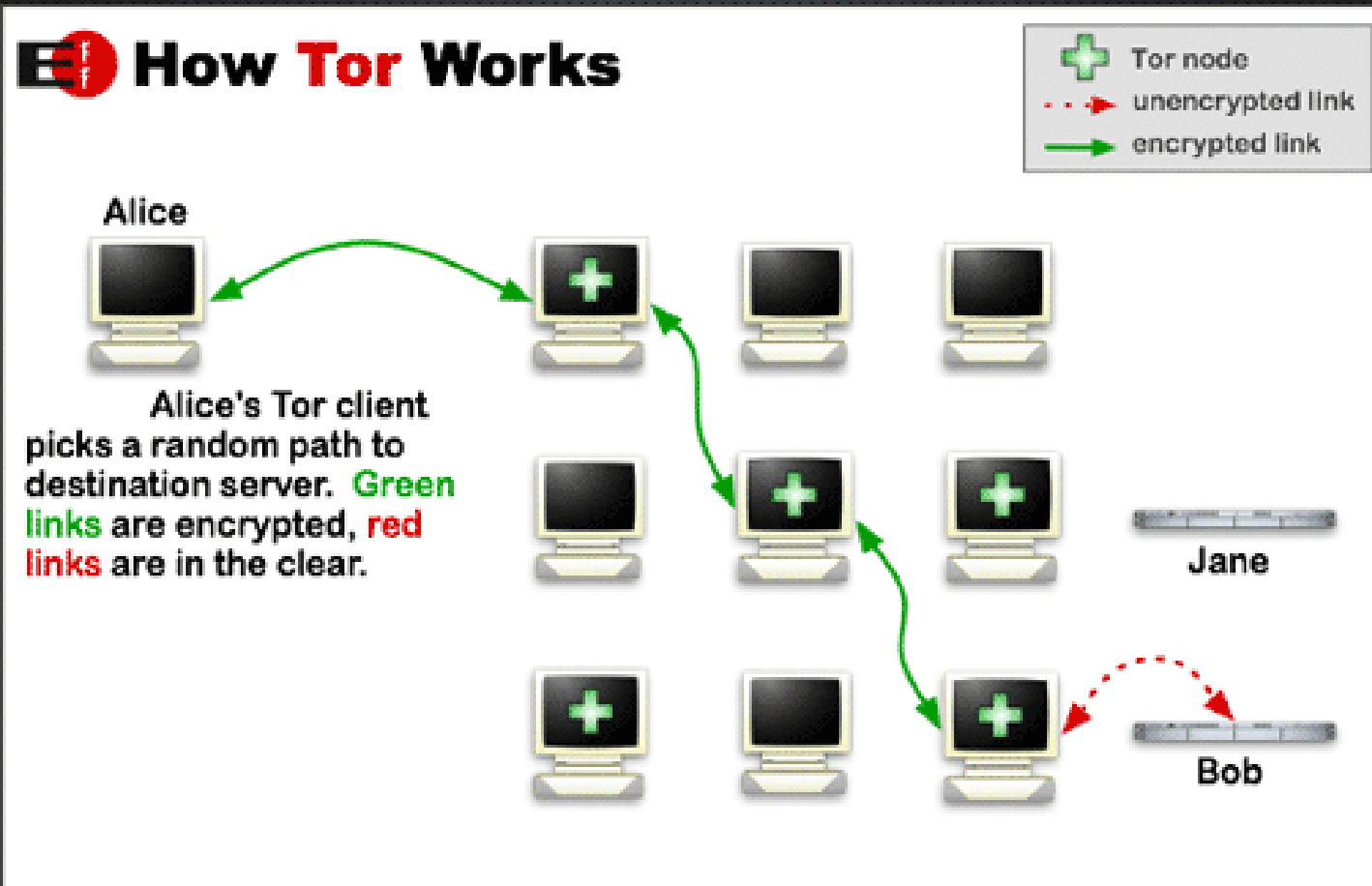


“Don't worry 'bout the law,  
they can't arrest us all!”





# Tor





# More on Tor

- - Why allowed? Military needs it too.
  - NOT really encrypted by itself (but you can just add it)
- - MANY other possible attacks (cookies, js)
  - Exit Nodes are dangerous
- - Like encryption, yes, the bad guys will use it too.



# Dark Web

- .onion sites
- The (former) Silk Road



So far, we've been thinking about “speaking”

But what about “hearing?”

“reading?”

“watching?”



Consider – “creeping de-anonymization of consumption”

If you're using:

- Amazon Books
- Netflix/Hulu
- Pandora/Spotify

... your stuff is reading you, too.



Back to Frederick Douglass...

Sophie Auld, who was bored one day,  
taught Frederick to read.



Quick side note  
(that happens to be literally the most important thing)

Reading, presently, is the only way to become smarter.

Also, you only TRULY control one thing in your life.

(See, also, “This is Water” – David Foster Wallace, Kenyon Commencement Speech)



Back to Frederick Douglass...

Sophie Auld, who was bored one day,  
taught Frederick to read, **ILLEGALLY**.

From there, he traded for, scammed, and  
stole books.

(though the books weren't necessarily kept forever...Perhaps we should  
say he “illegally downloaded them...”



Back to Frederick Douglass...

Luckily – books don't talk. They don't squeal on you, they don't run back to their owners and tell the owner who read them, and when, and how.



Back to Frederick Douglass...

Luckily – books don't talk. They don't squeal on you, they don't run back to their owners and tell the owner who read them, and when, and how.....

Well, they used to not do that, anyway :)



# Back to Frederick Douglass...





Julie Cohen, “Copyright Management in Cyberspace”

*“A fundamental assumption underlying our discourse about the activities of reading, thinking, and speech is that individuals in our society are guaranteed the freedom to form their thoughts and opinions in privacy, free from intrusive oversight by governmental or private entities.”*