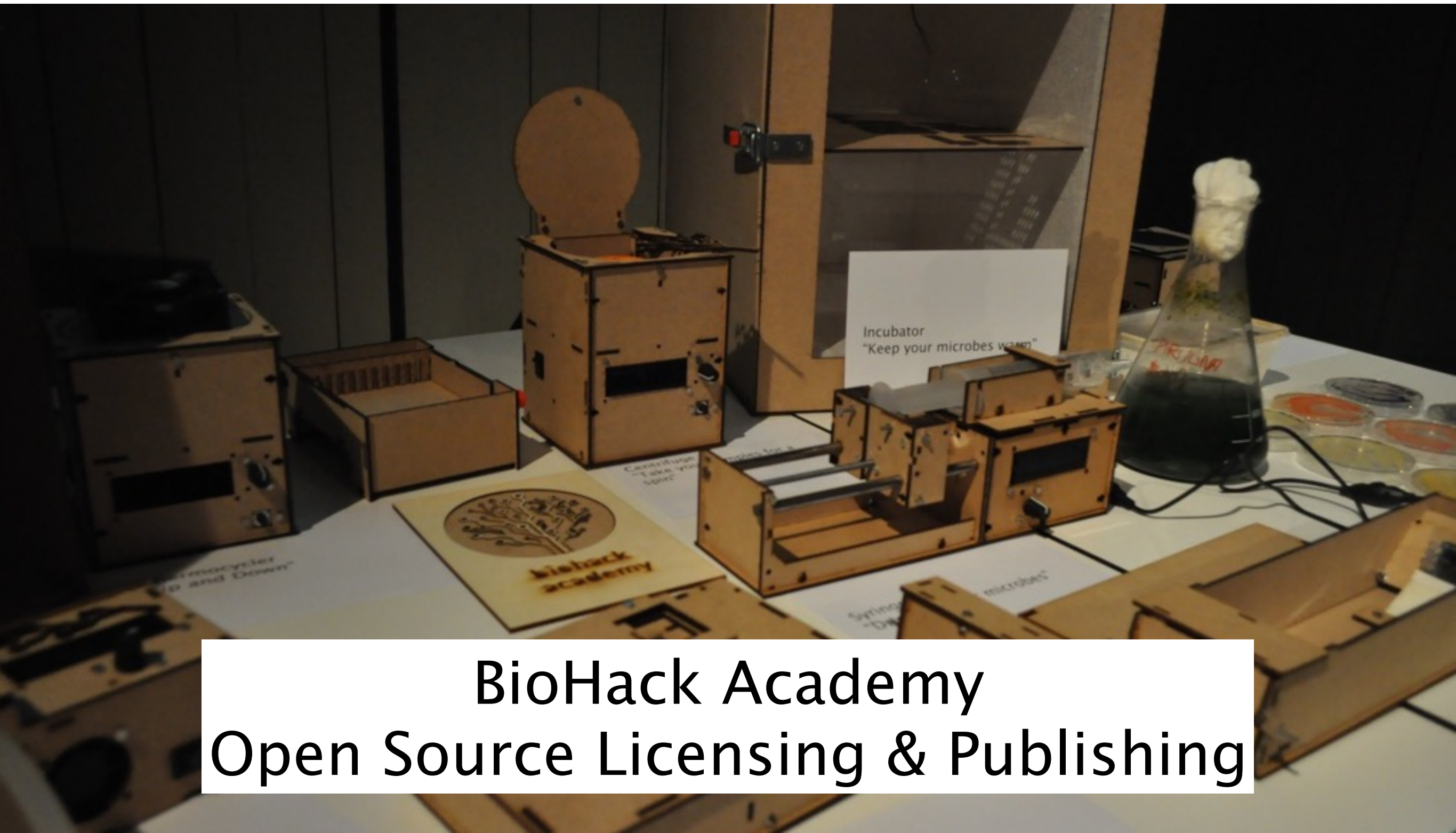




waag society

institute for art, science and technology



BioHack Academy
Open Source Licensing & Publishing



Intellectual Property

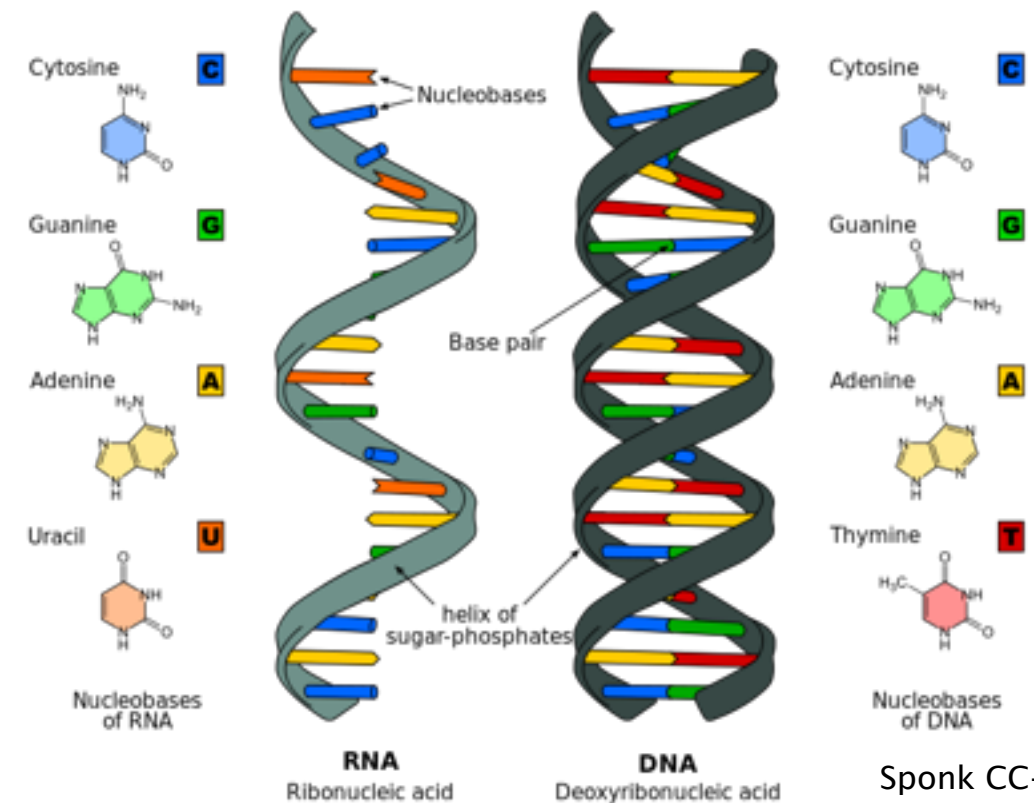
In Flanders Fields

In Flanders fields the poppies grow
Between the crosses, row on row
That mark our place: and in the sky
The birds their bravely singing, fly
Scarce heard amid the guns below.

We are the Dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved, and were loved, and now we lie
In Flanders fields.

Take up our quarrel with the foe:
To you from failing hands we throw
The torch: be yours to hold it high!
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders fields.

John McCrae



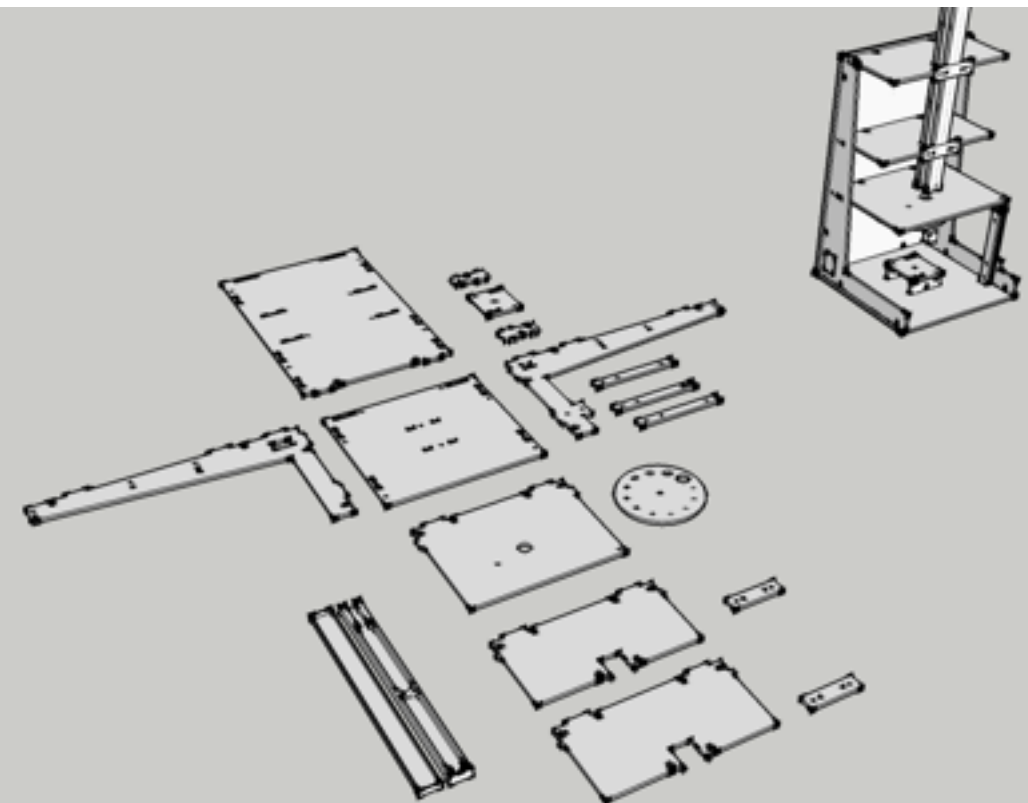
Sponk CC-BY-SA 3.0

Turns on an LED on for one second, then off for one second, repe

This example code is in the public domain.

*/

```
void setup() {  
  // initialize the digital pin as an output.  
  // Pin 13 has an LED connected on most Arduino boards:  
  pinMode(13, OUTPUT);  
}  
  
void loop() {  
  digitalWrite(13, HIGH);    // set the LED on  
  delay(1000);               // wait for a second  
  digitalWrite(13, LOW);     // set the LED off  
  delay(1000);               // wait for a second  
}
```





The age of conquest





Public Domain

- Free for everyone
- No rights reserved





Creative Commons

- SA: Share Alike
- BY: Attribution
- NC: Non commercial
- ND: No Derivatives

- Versions





GPL

GNU Public License

Right to:

- Copy
- Modify
- Distribute
- Sell
 - along with GPL

License has to be
included in code

Viral clause





MIT

Minimal type

Right to:

- Use
- Copy
- Modify
- Sell
- Distribute

Attach the license

Viral clause





BioBricks Public Agreement

- DNA is not code
- Biology is not software
- Contract based
- Contribution
- No viral clause
- No share alike



BioBrickTM
PUBLIC
AGREEMENT



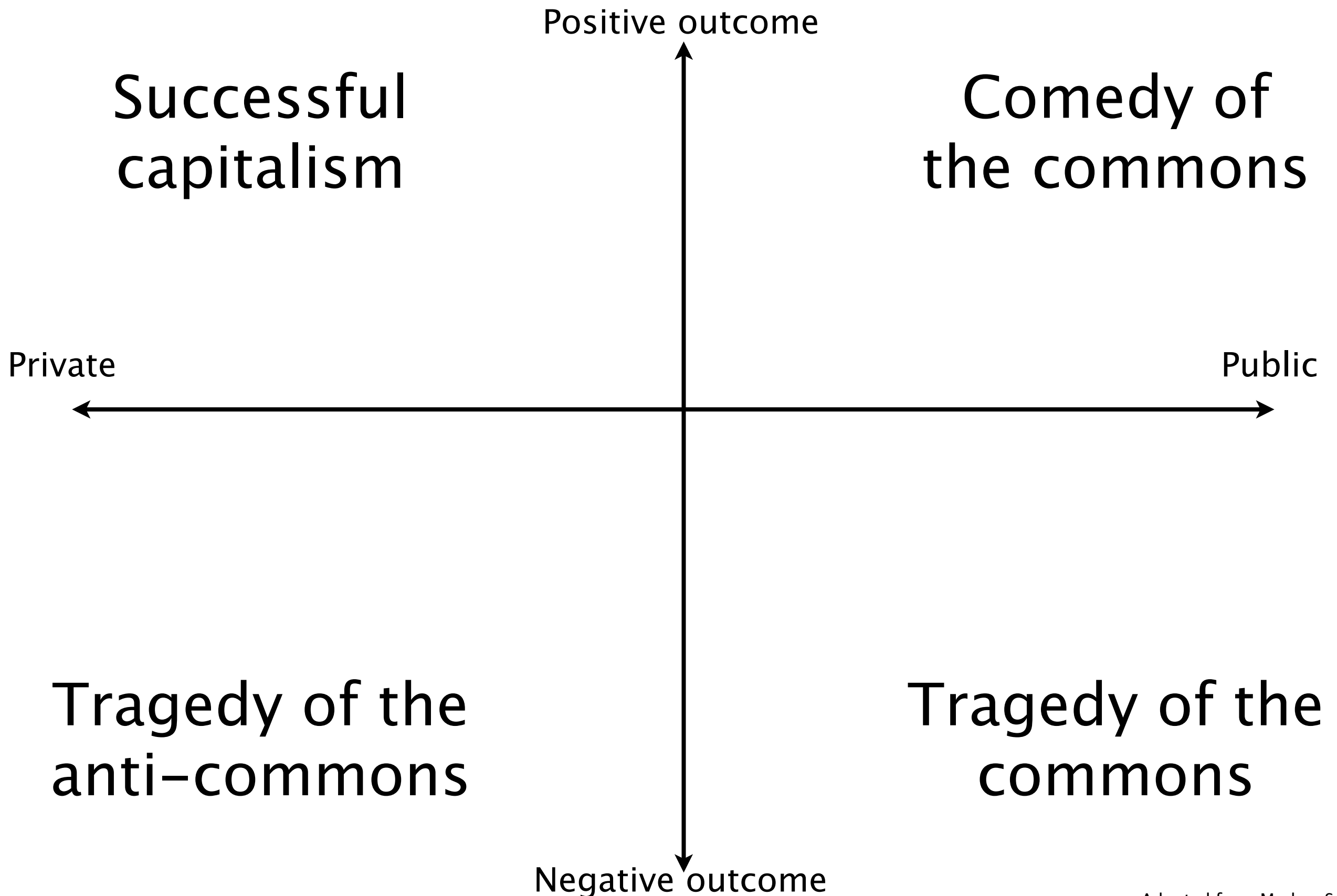
CAMBIA BIOS

- Open access to private patents
- Improvements open to CAMBIA

BIOS



Do we need a commons?





How to make money in/despite of the commons?





Why pharma is not open source?

- Difficult to invent around compound
- Culture





Biocommons

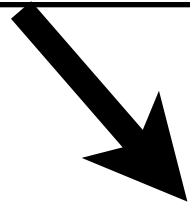
Picture by Pixelache



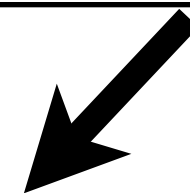


Biological Enclosures

Private Enclosure	Public Enclosure
WTO, IP Rights	Prior Informed Consent, Access Benefit Sharing, Mutually Agreed Terms
Increased Costs Increased Regulatory Burden	Difficult Access to Resources Lack of Research



Bio Piracy





Additional resources

- Software licences
 - <https://opensource.org/licenses/category>



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