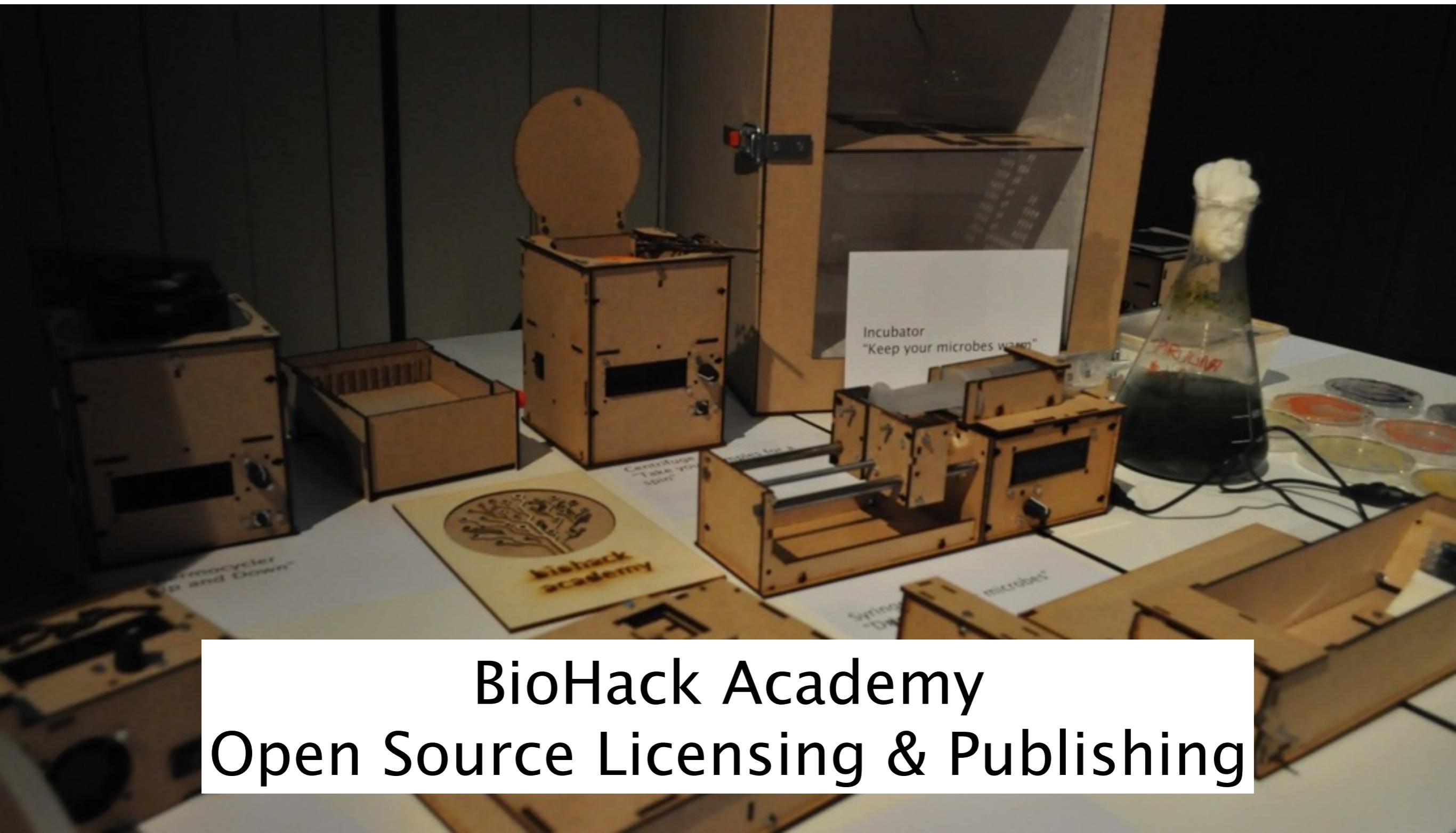




waag society

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 : we are the way
The larks still bravely singing, fly
Scarce heard amid the guns below.

We are the Dead. Short days ago
He lived, felt dawn, saw sunset glow,
Lived, and was 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.

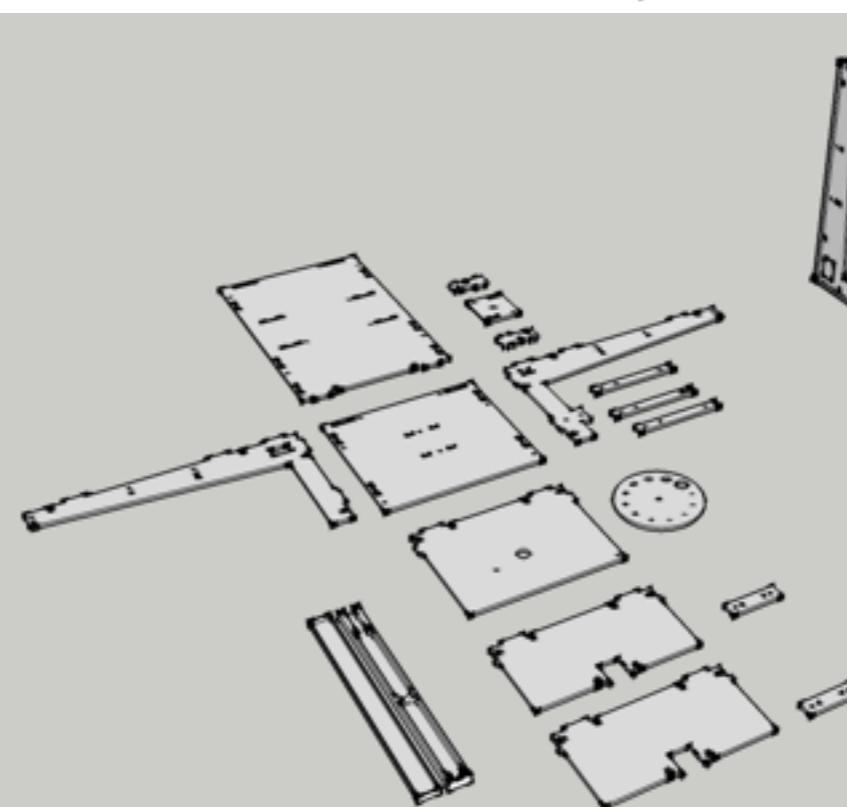
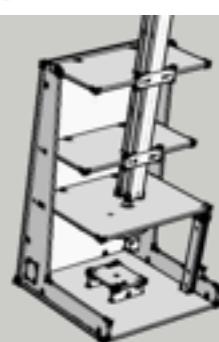
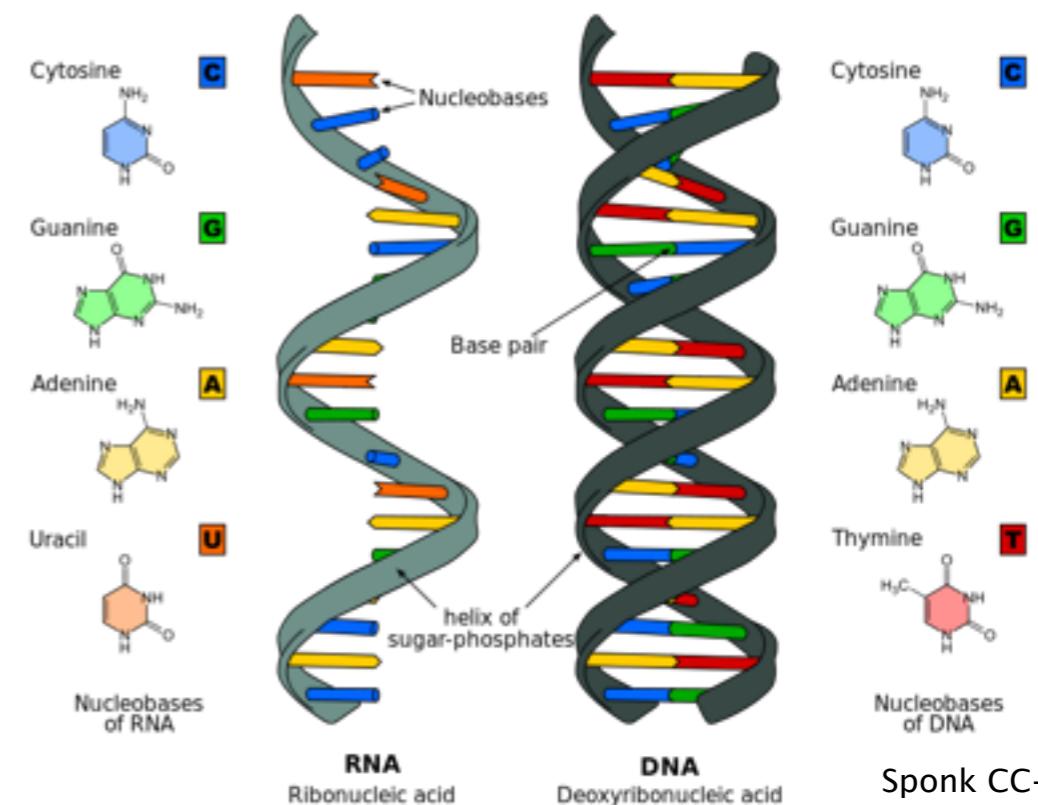
John McCrae

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

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



BioBrick™
PUBLIC
AGREEMENT



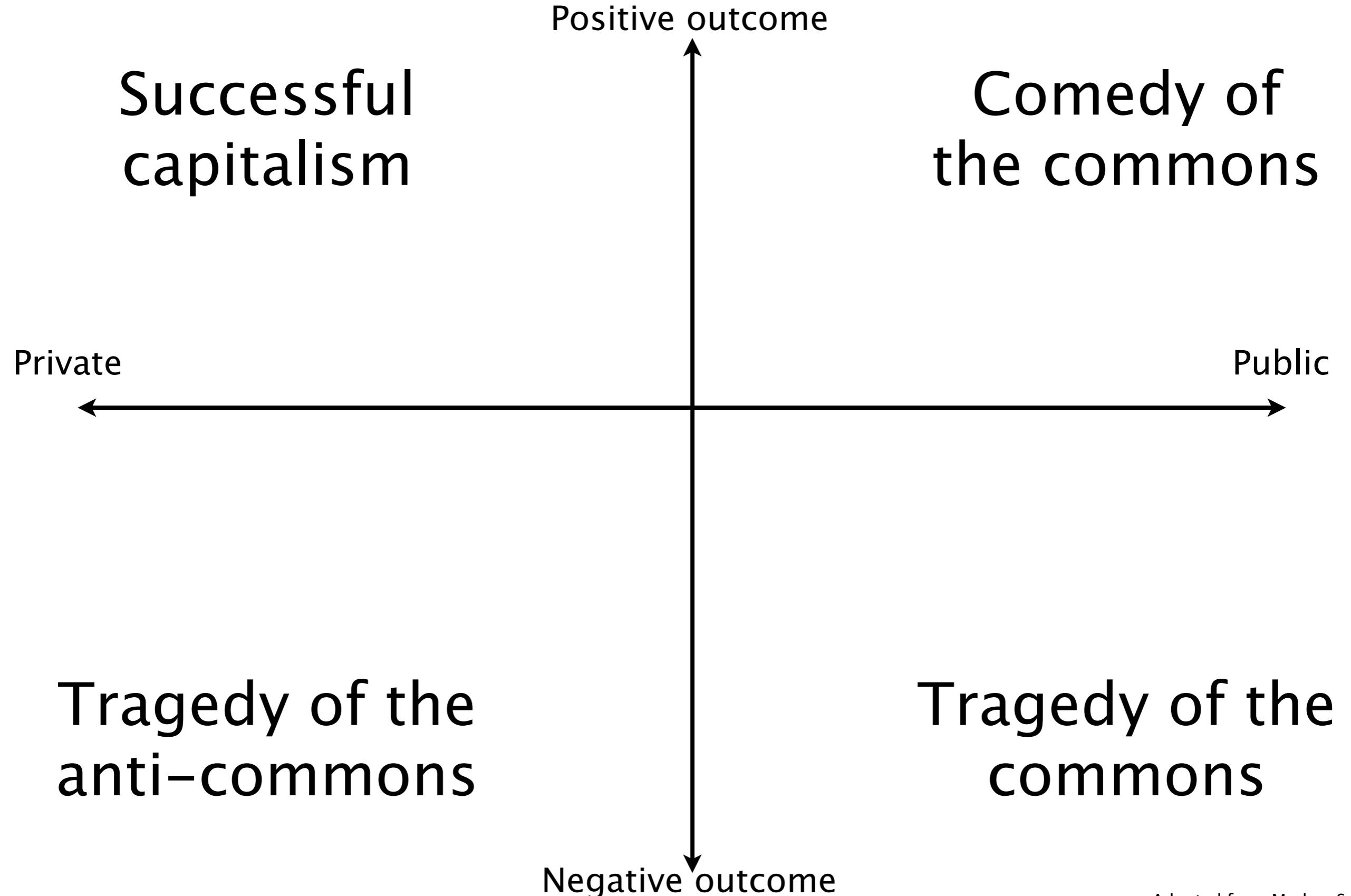
CAMBIA BiOS

- 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

WTO,
IP Rights

Increased Costs
Increased Regulatory Burden

Public Enclosure

Prior Informed Consent,
Access Benefit Sharing,
Mutually Agreed Terms

Difficult Access to Resources
Lack of Research

Bio Piracy



Additional resources

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



**some
rights
reserved**