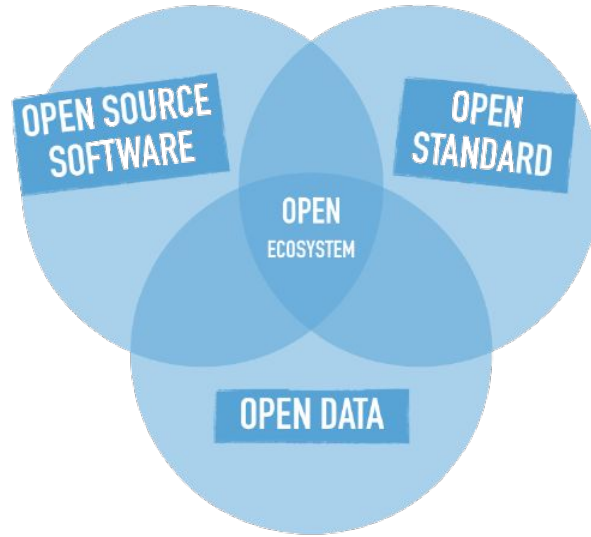


# 'open' geospatial



peering out of the box



'open' minds  
spuiw ,uədo,

**MINDS ARE LIKE  
PARACHUTES**



# kill the company

- an exercise where employees try to poke holes in the organization
- putting yourself in the competition's shoes and analyzing how to sink the company

....and as a result, you expose the things that are holding the company back

# kill the company

esri exits the picture (or more plausible, esri permanently suspends agrc)

steal paid projects

decentralize gis in state government

automate data aggregation

route 911 funding elsewhere

steal TURN GPS subscribers

## Permanent suspension of @realDonaldTrump

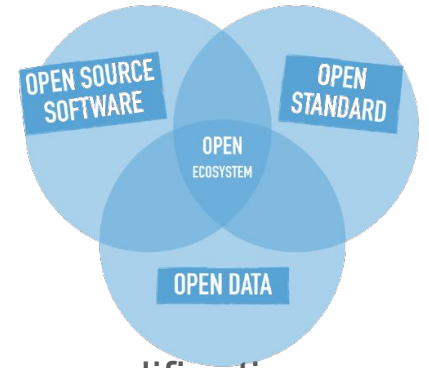
By [Twitter Inc.](#)

Friday, 8 January 2021 [Twitter](#) [Facebook](#) [LinkedIn](#) [Share](#)

# There's a world of GIS outside of the box



# The world of 'open' geospatial



## 'free' and 'open source'

freedom to use, freedom to modify, and freedom to share the modifications

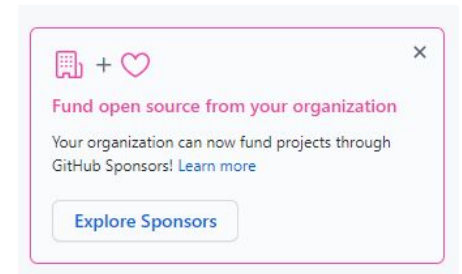
free as in freedom (or puppies)



freedom has a cost

upkeep, contributions, the idea of playing (or paying) a role to make it better

the investment of time = invested users = greater user control



# The world of 'open' geospatial

## access to source code

- public domain
- audit and modify

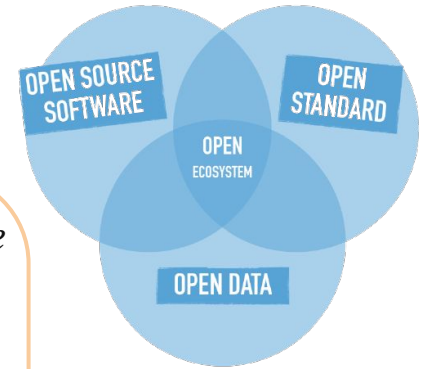
## benefits include...

- prevents vendor lock-in
- promotes secure software
  - 'secure' software can be decompiled, potentially exposing sensitive information
- improved quality
  - incentive to do best work

*“Publishing government software as open source has many benefits with no drawbacks.” Waldo Jaquith*

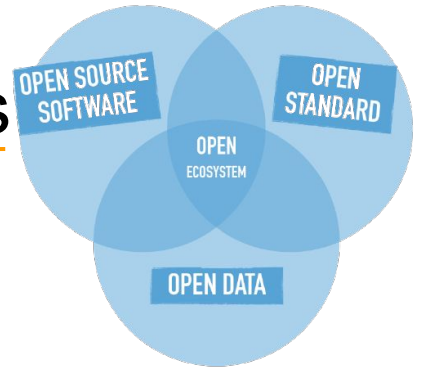


[Make sure your UI modernization plan includes an open source clause](#)





# The world of 'open' geospatial: standards



## 'open' standards

- interoperable
- vendor-neutral
- data-neutral
- publicly available
- no license fees
- unencumbered by patents and other intellectual property

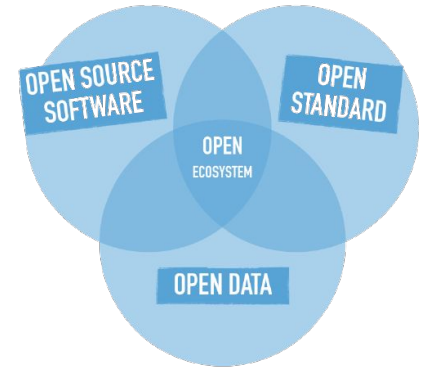


The Great Baltimore Fire of 1904

# The world of 'open' geospatial: data

## 'open' data

- free to use (public domain)
- welcomes collaboration
- data use = better data
  - OSM

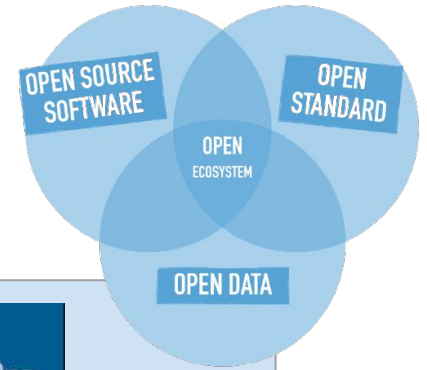


who  
gets  
out?



# The world of 'open' geospatial: software

'open' source software geostack 



<b>Desktop</b>	 	
<b>Database</b>	 	
<b>Web Server</b>		
<b>Web GIS</b>	 	 

# So then, how does esri maintain customers?

- government: local, state, and federal
- academia: secondary and higher education
- brand (think Tylenol)
- corporate procurement practices

- vendor liability
- customer support



- licensing strategy
  - Enterprise Licensing Agreements (ELAs)
    - negates the idea of 'free' alternatives
- network effect (talkative customers)
  - ESRI UC ~18k | International FOSS4G ~1k
- breadth of offering & partner network
  - 1,600+ partners

*“The open source software movement, while formidable, is objectively not disrupting Esri’s core business, nor in my opinion is it threatening to any time soon.”*  
- Joe Morrison



# keep your options 'open'

- hybrid model is the best approach
  - aka, a diversified portfolio (ELA)
- comply with open standards --> interoperable
- pick and choose solutions in the open geospatial ecosystem
  - blending open and proprietary



**Chetan Puttagunta**

@chetanp

I think the open source movement is certainly in the early innings and there's a lot of potential for innovation. I believe that it is not a zero sum equation and both open source and proprietary software will thrive over the next decade.

1:50 PM · Nov 10, 2019



# keep your options 'open'

blending open proprietary

## open source

- grass-roots user control
- the code lives on (work with the existing source code or an established fork)
- free (as in puppies)
- outside of the monopoly

## proprietary

- vendor liability
- neatly cataloged and packaged solutions
- centralized documentation
- customer support
- fairly stable environment

# open ecosystem at agrc - closing some gaps

## quick wins

- serve WMS/WFS layers (alongside our esri hosted feature services)
- make SGID available in Google's BigQuery public datasets program

## larger-effort wins

- discontinue the use of attribute domains where value <> desc
- run sweeper on automated schedule
  - add more interoperable-data checks such as attribute-domain validation check
- expand our collaborative editing efforts
- public feedback mechanism for submitting data issues (spatially) [we have [chalkdust](#)]
- integration with OSM