



Why public outreach?

- Engage with people who may not otherwise get an opportunity to enjoy the night sky
- Generate interest in astronomy and the sciences in general
- Create a connection with nature
- Encourage curiosity, especially in young kids

How do we do it?

- Sidewalk astronomy - set up in public spaces and let passersby look through a telescope
- Star parties - same idea but in a park with lots of telescopes and astronomers
- Planetarium shows
- University lectures

Left: sidewalk astronomer c. 1925 (Wikipedia)



A selection of posts from several different subreddits

- Left: r/CrappyDesign
- Bottom left: r/Iceland
- Bottom right: r/elliottsmith

If you are interested in something, you can find it on Reddit



	body	subreddit
0	they will speed to mach 6 only, not exit velocity	space
1	Like, you'll be on the plane this telescope's ...	space
2	It's because of the incredible expense of gett...	space
3	So it's a bad thing they want to redo a test t...	space
5	What is wrong with the lunar gateway project? ...	space

	body	subreddit
0	The majesty of the Cosmos knows no bounds.	Astronomy
1	That's awesome man. I live in Boston and you c...	Astronomy
2	I sure did! [This is a wider image](https://i....	Astronomy
3	I was almost expecting M104 - Hubble's image o...	Astronomy
4	Were you able to see any of the Milky Way with...	Astronomy

Methodology

- Grab many posts from r/space and r/Astronomy (legally and ethically)
- Turn them into numerical data
- Create and compare several models to determine which subreddit a post is from using the words that appear in the post
- Extract the words with the most predictive power

Top: five of 7,522 r/space posts

Bottom: five of 9,449 r/Astronomy posts

mars
boeing
planet
telescope
greek
stars
thanks
nebula
nasa
rover
star
space
curiosity
sky
astronomy
light
beautiful
mount
scope
atmosphere
selfie
rocket
image
named
thank
god
congress
earth
night
orion
uranus
pluto
amazing
water
names
galaxy
humans
arm
andromeda
years

Findings and recommendations

- Most important (not necessarily most frequent) words:
 - Greek
 - thanks
 - beautiful
 - god
 - earth
 - amazing
 - humans

What does this information mean and what can we do with it?

- Laypeople are using words like “amazing,” “beautiful” - these are words we often hear from people looking through a telescope for the first time
- Words like “Greek,” “Roman” (further down the list) - people are not only interested in the science, but also the mythology
- “Humans”, “god”, “earth” - astronomy can give perspective on humanity and our place in the universe
- Bottom line: focus on these aspects in order to engage ordinary people and inspire the next generation of scientists