




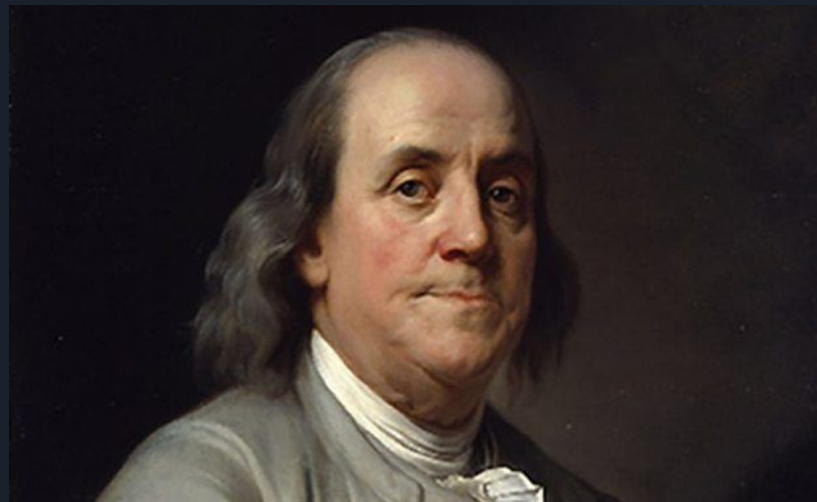
Citizen Science

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**“Tell me, and I forget. Teach
me and I remember. Involve
me and I learn.”**

- Benjamin Franklin





What is Citizen Science?

Oxford English Dictionary defines Citizen Science as:

“Scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions.”

<http://citizenscience.org/about/>



What is Citizen Science?

- Science done on behalf of the general public
- No STEM background needed
- Based on the belief of Open Data
 - Data is open source and available to the public
- A way of getting more people involved and interested in science
- Citizen Science has completed over 1,000 projects with over 1,000,000 volunteers

Citizen Science Association



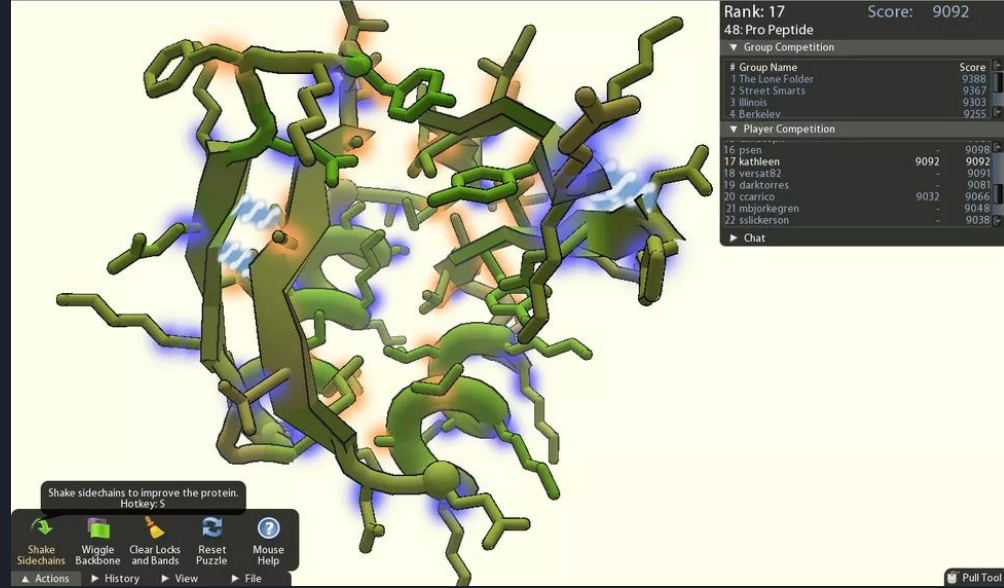
- Became formal organization in 2012
- Mission: Advance citizen science through communication, coordination and education.
- Launched their own open-access, peer-reviewed journal, *Citizen Science: Theory and Practice*



- CSA Conference 2019
- North Carolina Museum of Natural Science
- March 13th -16th

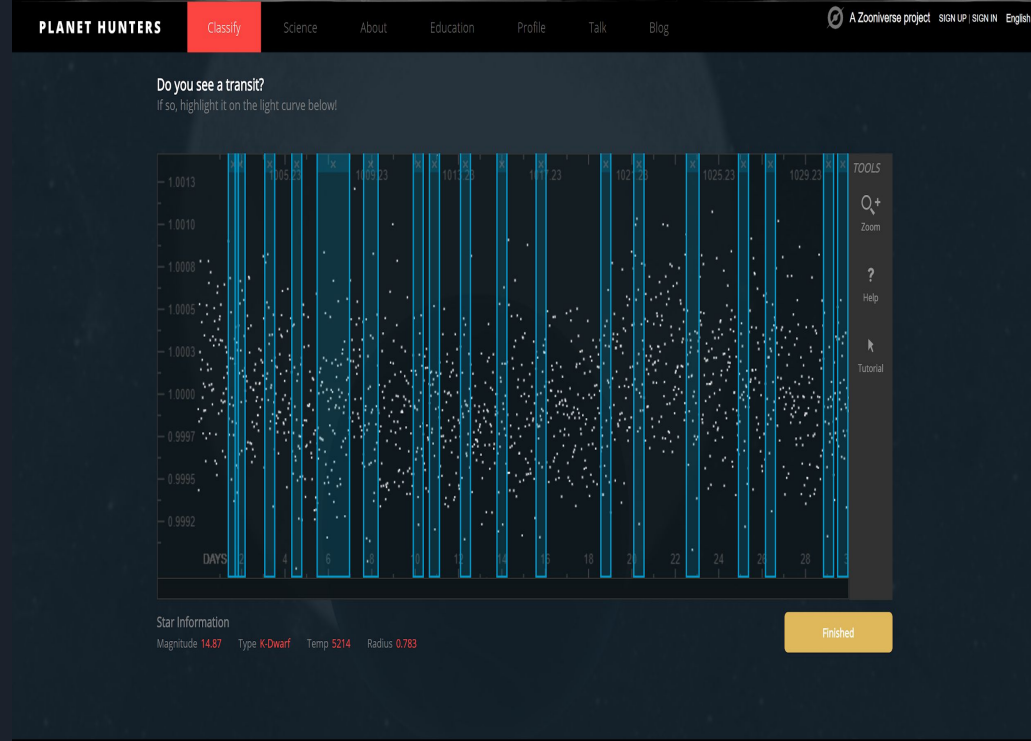
Projects: Biology Foldit Game

- Online game where users solve problems that help with protein folding
- Game managed to solve the hard problem regarding HIV enzymes in 3 weeks
- Relies on the power of the people



Projects: Space Planet Hunters

- Help NASA discover new planets
- Identify and mark drops in a star's light curve
- Uses human's excellence at pattern recognition
- Computers are ok at doing this, but not as good as humans
- Has resulted in over 30 planet candidates and several confirmed planet discoveries



Projects: Nature Camera CATalogue

- Hundreds of thousands of photos are collected yearly from motion-activated cameras set up in the wild
- Scientists need help combing through photos to track the population trends of the world's 40 wild cat species
- Anyone willing to help can simply go through photos and identify any animals shown in them



<https://www.zooniverse.org/projects/panthera-research/camera-catalogue>



Camera CATalogue ✓

ABOUT

CLASSIFY

TALK

COLLECT

BLOG

PANTHERA

FAQ



Rhino/Elephant

Pattern

Color

Horns

Tail

Build



Elephant, Asian

Showing 1 of 52 Clear filters

Done & Talk

Done

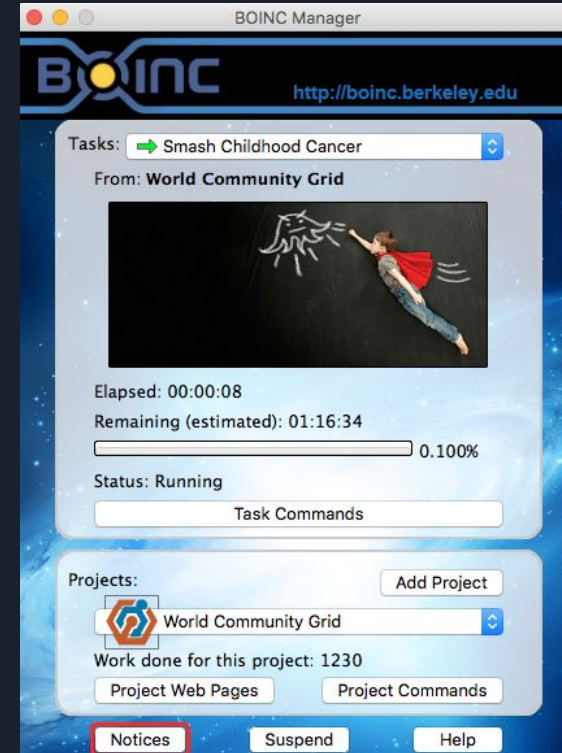
Show the project tutorial

You should sien in!

<https://www.zooniverse.org/projects/panthera-research/camera-catalogue/classify>

Projects: “Set and Forget”

- Donate your device's spare computer power to scientific research
- Download and Install BOINC Software on to your computer or Android phone.
- Choose the project you would like to “work on”
 - ClimatePrediction.net runs simulations to determine validity of climate change
 - World Community Grid- processes science research data
- The software gets tasks from the project servers
- Your computer processes data for the tasks on its idle time and uploads the information it computes
- The cycle is repeated indefinitely and automatically





Conclusion

- Citizen Science is a new and exciting way for everyone to get involved in scientific projects and research.
- Increase community participation in Science
- Streamline data collection and analysis
- By volunteering your time to Citizen Science projects, you can help make the world a better place



References

- <http://citizenscience.org/>
- <https://www.scientificamerican.com/citizen-science/>
- <https://www.zooniverse.org/projects?page=1&status=live>
- https://www.planethunters.org/?&_ga=2.187237096.1983185779.1520300877-118711938.1519237603#/science
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- <https://www.scientificamerican.com/article/foldit-gamers-solve-riddle/>