



GAMES FOR HEALTH

EUROPE

Citizen Science: What we learned yesterday to change tomorrow

DISCLOSURE SLIDE
for presentations at the

GAMES FOR HEALTH EUROPE 2025 CONFERENCE

I herewith confirm that there is not any conflict of interest with the conference organization or any of its sponsors.

Citizen Science: What we learned yesterday to change tomorrow

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Theme: Citizen Science for Health – CS4H**

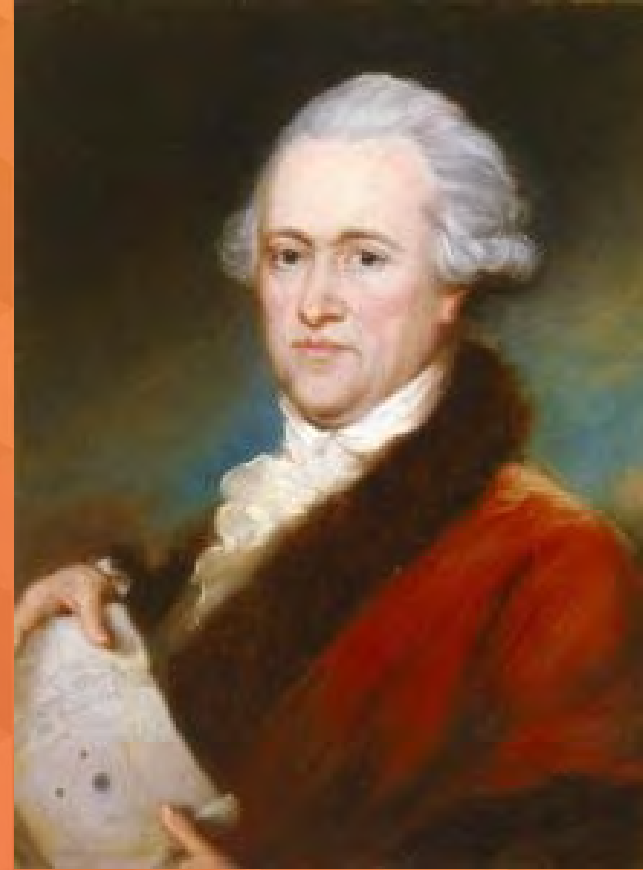
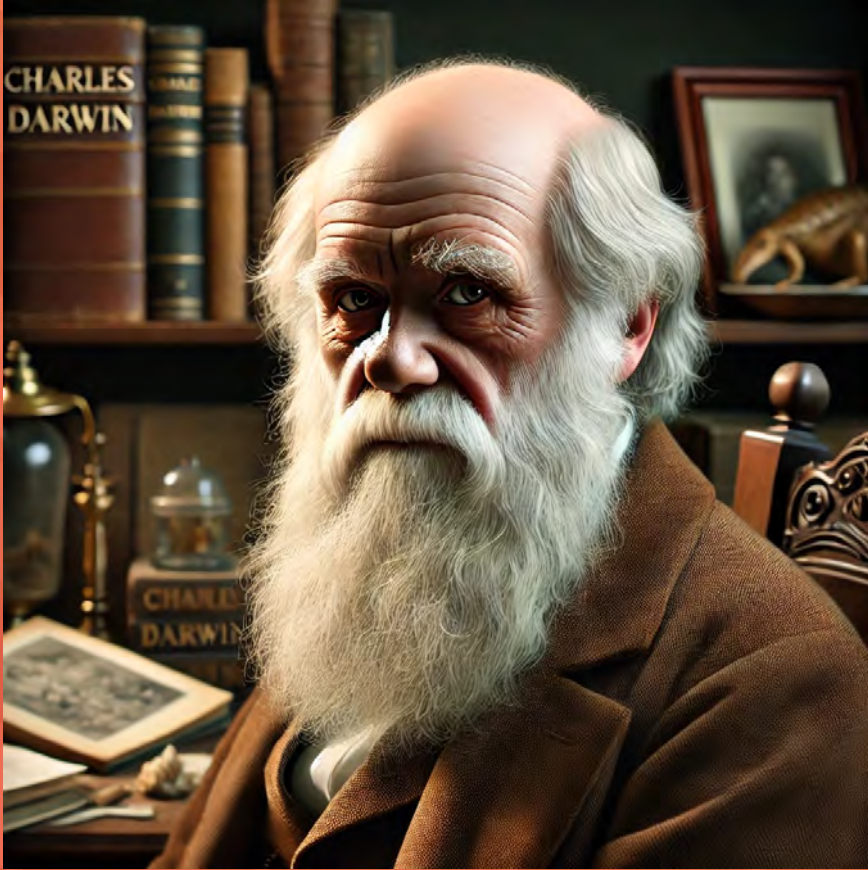


Citizen Science: Ancient Times



Citizen Science: 15th to 18th century

William Herschel – Discovered Uranus 1781



Citizen Science: 19th and early 20th century

Founded in 1900



THE WEATHER.

METEOROLOGICAL REPORTS.

| Wednesday, July 31, 8 to 9 a.m. | B. | E. | M. | D. | F. | C. | I. | S. |
|---------------------------------------|-------|----|----|--------|----|----|----|----|
| Nairn | 29.54 | 57 | 56 | W.S.W. | 6 | 9 | o. | 3 |
| Aberdeen | 29.60 | 59 | 54 | S.S.W. | 5 | 1 | b. | 3 |
| Leith | 29.70 | 61 | 55 | W. | 3 | 5 | c. | 2 |
| Berwick | 29.69 | 59 | 55 | W.S.W. | 4 | 4 | c. | 2 |
| Ardrossan | 29.73 | 57 | 55 | W. | 5 | 4 | c. | 5 |
| Portrush | 29.72 | 57 | 54 | S.W. | 2 | 2 | b. | 2 |
| Shields | 29.80 | 59 | 54 | W.S.W. | 4 | 5 | o. | 3 |
| Galway | 29.83 | 65 | 62 | W. | 5 | 4 | c. | 4 |
| Scarborough | 29.86 | 59 | 56 | W. | 3 | 6 | c. | 2 |
| Liverpool | 29.91 | 61 | 56 | S.W. | 2 | 3 | c. | 2 |
| Valentia | 29.87 | 62 | 60 | S.W. | 2 | 5 | o. | 3 |
| Queestown | 29.88 | 61 | 59 | W. | 3 | 5 | c. | 2 |
| Yarmouth | 30.05 | 61 | 59 | W. | 5 | 2 | c. | 3 |
| London | 30.02 | 62 | 58 | S.W. | 3 | 2 | b. | — |
| Dover | 30.04 | 70 | 64 | S.W. | 3 | 7 | o. | 2 |
| Portsmouth | 30.01 | 61 | 59 | W. | 3 | 6 | o. | 2 |
| Portland | 30.03 | 63 | 59 | S.W. | 3 | 2 | c. | 3 |
| Plymouth | 30.09 | 62 | 59 | W. | 5 | 1 | b. | 4 |
| Penzance | 30.04 | 61 | 60 | S.W. | 2 | 6 | c. | 3 |
| Copenhagen | 29.94 | 64 | — | W.S.W. | 2 | 6 | c. | 3 |
| Helder | 29.99 | 63 | — | W.S.W. | 6 | 5 | c. | 3 |
| Brest | 30.09 | 60 | — | S.W. | 2 | 6 | c. | 5 |
| Bayonne | 30.13 | 68 | — | — | — | 9 | m. | 5 |
| Lisbon | 30.18 | 70 | — | N.N.W. | 4 | 3 | b. | 2 |

General weather probable during next two days in the—
 North—Moderate westerly wind; fine.
 West—Moderate south-westerly; fine.
 South—Fresh westerly; fine.

Explanation.
 B. Barometer, corrected and reduced to 32° at mean sea level; each 10 feet of vertical rise causing about one-hundredth of an inch diminution, and each 10° above 32° causing nearly three-hundredths increase. E. Exposed thermometer in shade. M. Moistened bulb (for evaporation and dew-point). D. Direction of wind (true—two points left of magnetic). F. Force (1 to 12—estimated). C. Cloud (1 to 9). I. Initials:—b., blue sky; c., clouds (detached); f., fog; h., hail; l., lightning; m., misty (hazy); o., overcast (dull); r., rain; s., snow; t., thunder. S. Sea disturbance (1 to 9).

METOFFICE



Citizen Science: Rise of Institutional Science Mid 20th century

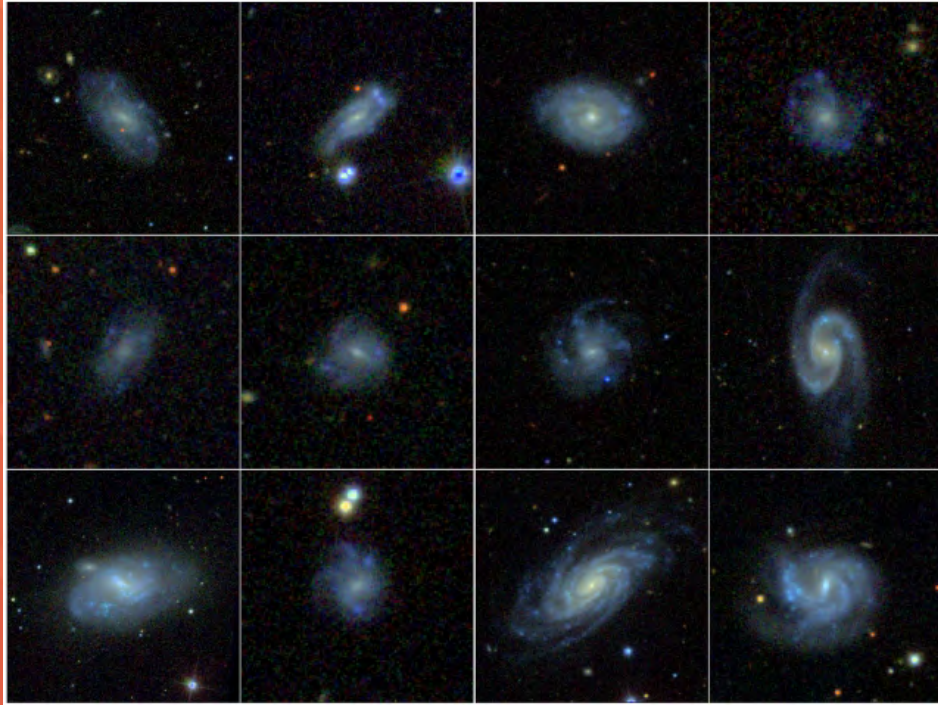


Institutional science refers to scientific research and knowledge production that takes place within formal organizations, such as universities, government agencies, research institutes, and corporate R&D departments.

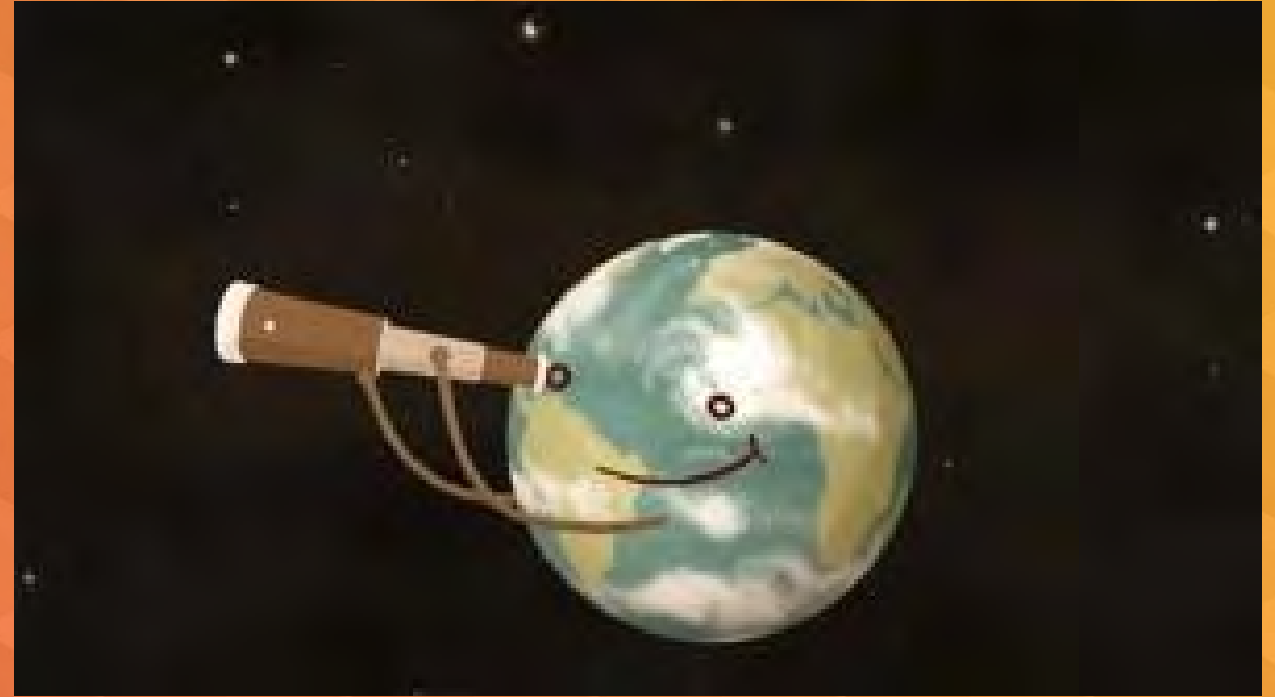


Citizen Science: The Digital Revolution – Late 20th century till now

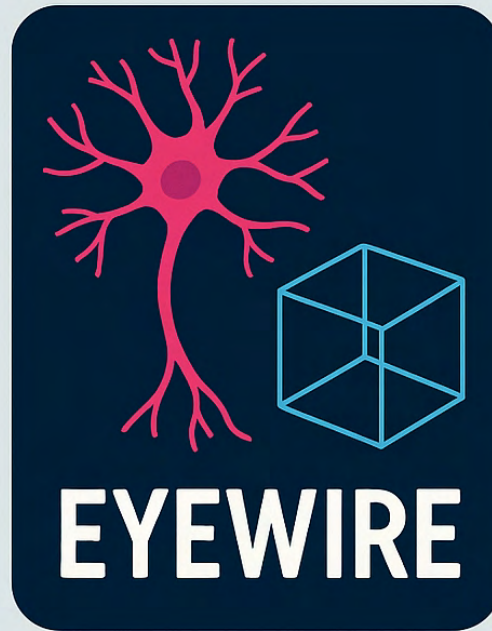
Galaxy Zoo




Backyard Worlds: Planet 9



Citizen Science: Making a Game to Support Research



Citizen Science: Active Community – like SciStarter



CITIZEN SCIENCE MONTH 2025 (APRIL)

| SUN | MON | TUE | WED | THU | FRI | SAT |
|---|---|--|--|--|--|--|
| <p>There's still time! Add your Events to SciStarter.org/add/</p> <p>Prepare for Day 1: What is citizen science?</p> | <p>1 Let's Leap into Citizen Science Month Together!</p> | <p>2 Uncover History on National Archives Day!</p> | <p>3 Find a Rainbow today with GLOBE Observer: Clouds</p> | <p>4 REEF SAS Ocean Day! Explore the deep, monitor fish & sharks, visit the antarctic</p> | <p>5 Wildlife Week Camera traps, nature scavenger hunts, unique sightings!</p> | |
| <p>6 CITIZEN SCIENCE It's National Library Week! Celebrate programs at your local library! Check out a kit, attend a program, & more!</p> | <p>7 World Health Day Outbreaks Near Me Predict Epidemics Girl Scouts Overseas Catchathon</p> | <p>8 Public Health Week: Accessibility & Equity Projects PROJECT SIDEWALK</p> | <p>9 Public Health Week: Water Quality</p> | <p>10 ALL HANDS ON DECK Host a Watch Party!</p> | <p>11 National Pet Day Take a pet selfie & use #onemillionactsofscience Dog People Cat People</p> | <p>12 Space Day Do you need some space?</p> |
| <p>13 Eat Popcorn for Science to close out Public Health Week!</p> | <p>14 National Gardening Day is for the Bees! Watch buds burst, count pollinators, spot bees, plant native & more!</p> | <p>15 Citizen Science "Knock out" with WeDigBio Halfway there! Report your Acts of Science!</p> | <p>16 Spend the Day of the Mushroom Outdoors! Then, scan the horizon with Land Cover</p> | <p>17 Show your Appreciation for Bats with Bat Count! Bat Emergence Cam</p> | <p>18 Celebrate World Amateur Radio Day with a Ham Radio Open House</p> | <p>19 Spring Migration Celebration</p> |
| <p>20 Dark Sky Week is Nigh! Stargaze, identify constellations, & monitor light pollution</p> | <p>21 COOLWATER How are you celebrating? #onemillionactsofscience #earthday</p> | <p>22 EARTH DAY How are you celebrating? #onemillionactsofscience #earthday</p> | <p>23 #LeaveNoTrash University Challenge April 19-27</p> | <p>24 DNA Day / Arbor Day / World Penguin Day / City Nature Challenge Measure trees, count penguins, play video games for research, and document wildlife</p> | <p>25 Super Science Days: City Nature Challenge</p> | <p>26</p> |
| <p>27 NEW New Moon for New Projects</p> | <p>28 International Moth Night - Create a moth hangout!</p> | <p>29 Try Environmental Listening Activities for Noise Awareness Day</p> | <p>30 Don't forget to report your Acts of Science!</p> | <p>ONE MILLION ACTS OF SCIENCE - CITIZEN SCIENCE MONTH - APRIL</p> | <p>Print this Calendar Customize this Calendar</p> | |

SciStarter
Science we can do together.

Participating is as easy as 1, 2, 3!

1 PARTICIPATE
Participate in any citizen science project or event you find on SciStarter in April.

2 REPORT
Report your act(s) at SciStarter.org/go/report.

3 SHARE
Use #OneMillionActsofScience and tag @SciStarter to be featured on our website!



Citizen Science Future: Open science becomes the standard

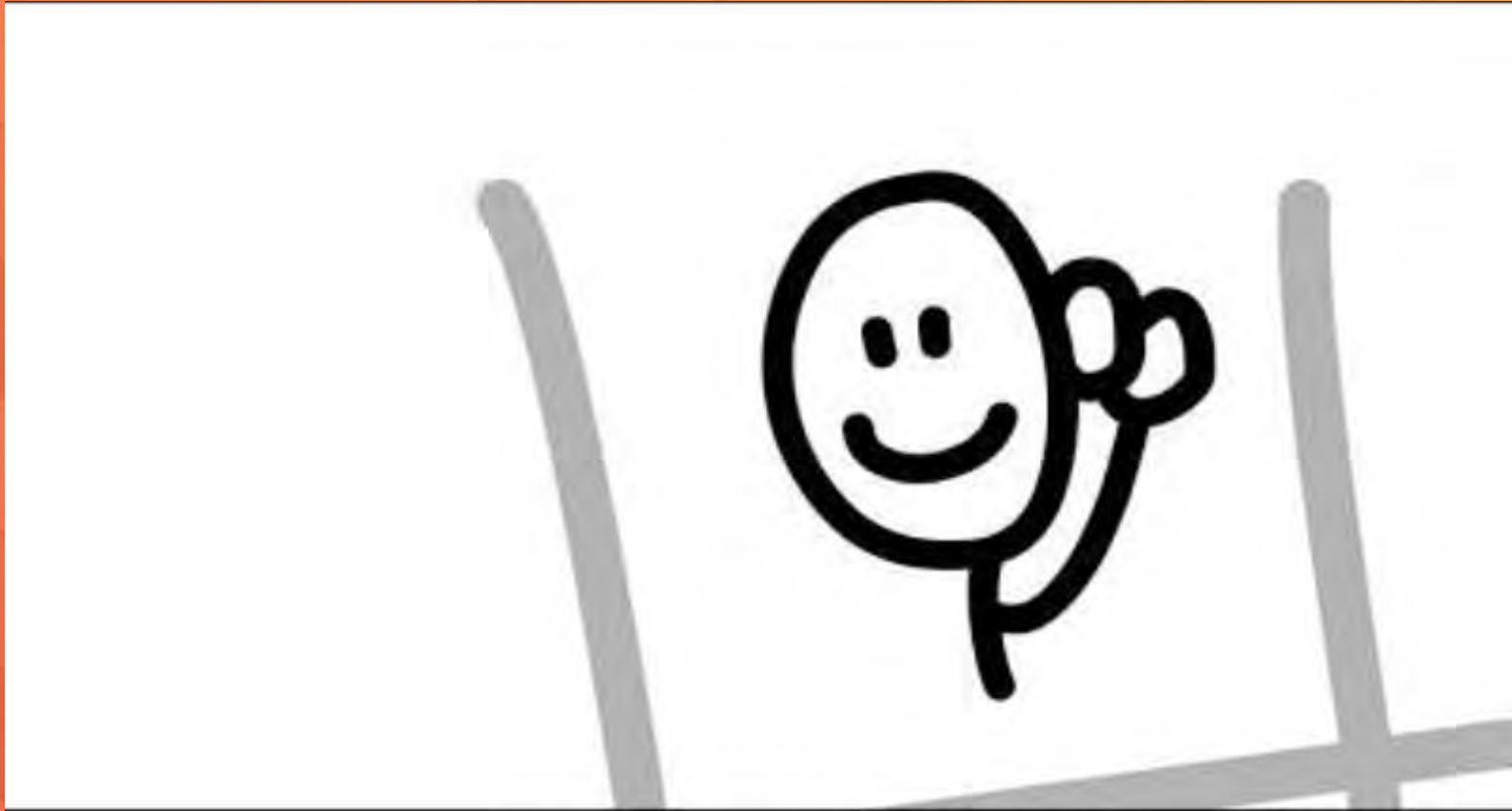
- ❖ 2020 - Dutch government declares that “Open Science” has to become the open standard for research within 10 years
- ❖ 2022 – Start National Program Open Science
 - ❖ By initiative of the Netherlands Science Agenda (NWA)
- ❖ 2023 – Start Citizen Science Netherlands (SC-NL)
- ❖ 2024 – Budget allocated for SC

“Open science is the movement to a more open and participative research practice by which publications, data, software and other kinds of scientific information are shared in an as early possible stage and made available for re-use”

“Open science results in a higher impact, both for science as society”



Citizen Science Future: Open science becomes the standard



Citizen Science Future: Integration with Artificial Intelligence



AI will enhance citizen science by automating data analysis, improving pattern recognition, and providing real-time feedback. It will make projects more accessible, expand participation, and increase accuracy. However, it may also reduce the need for human involvement in some areas. The future will likely involve a hybrid model where AI handles tedious tasks, while humans focus on interpretation and decision-making.



THE FUTURE OF CITIZEN SCIENCE



The future of citizen science includes greater integration with AI, real-time data collection through smart devices, increased global collaboration, and **expanded participation through gamification** and education. It will become more accessible, efficient, and impactful in tackling environmental, health, and space research challenges.



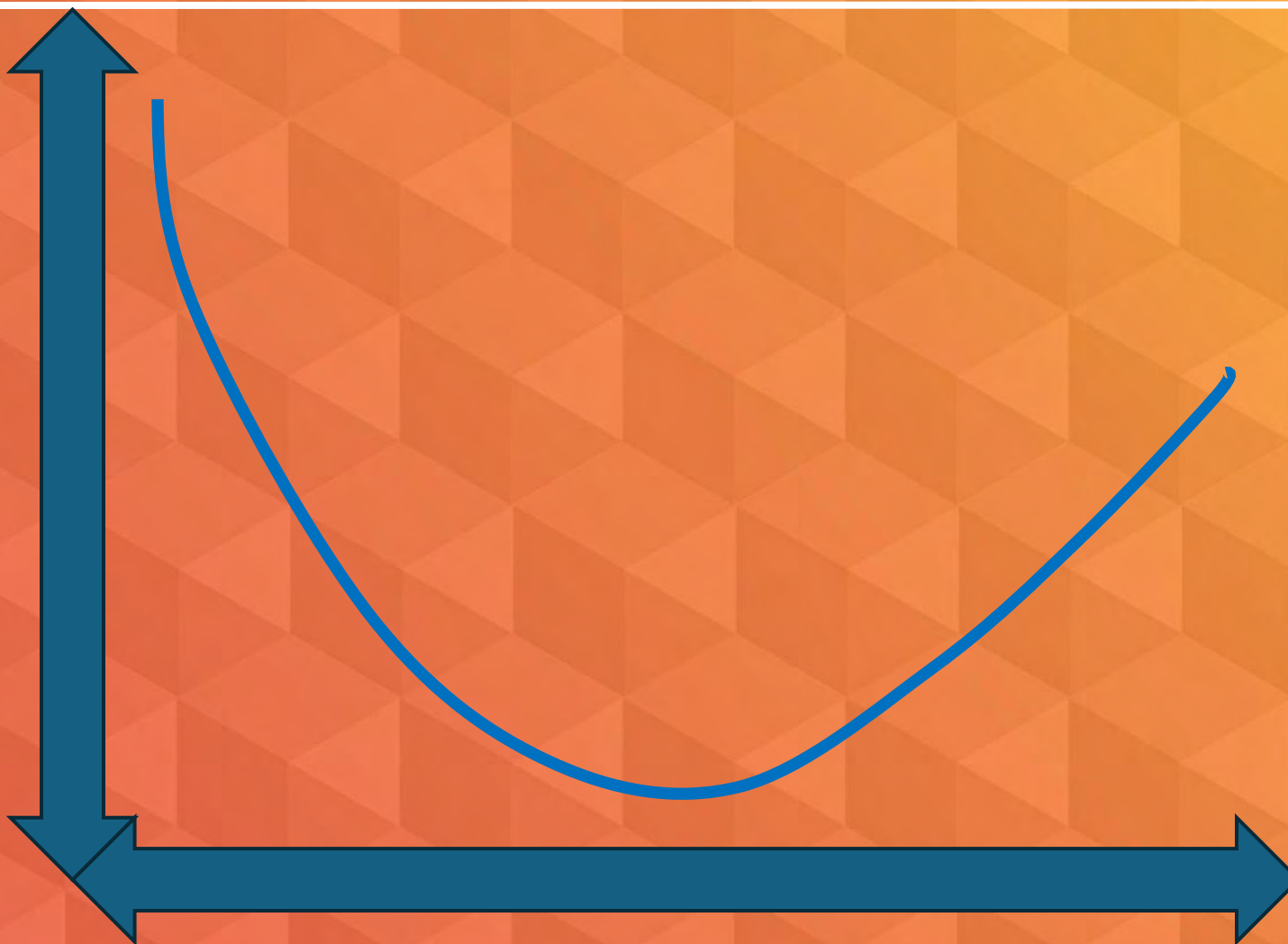
Citizen Science: Evolution over Time

100% citizen

0% citizen

0% scientist

100% scientist




Citizen Science and Games for Health



Scientist ETAIN 5G Scientist ETAIN 5G Scientist ETAIN 5G Scientist ETAIN 5G Scientist

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