

# Extraordinary Discoveries and the Press's Role in Accurate Dissemination

(Or, how to tell the public we might have found some aliens)

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**The Atlantic**

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So you've discovered potential evidence of extraterrestrial life and now the press is going to share the news



## ‘Oumuamua, 2017

- Astronomers announce the detection of the first known interstellar asteroid
- The news arrives in press releases from the University of Hawaii and NASA
- The headlines:
  - *ScienceNews*: An interstellar asteroid might have just been spotted for the first time
  - *The New York Times*: Astronomers Race to Study a Mystery Object From Outside Our Solar System
  - *The Washington Post*: A space rock from another star is spotted in our solar system — a cosmic first
  - *The Guardian*: Mysterious object seen speeding past sun could be 'visitor from another star system'

# Phosphine on Venus, 2020

- Scientists announce they've detected phosphine gas in Venus's atmosphere, and they've ruled out a bunch of abiotic explanations, leaving them with the extraterrestrial hypothesis
- The news arrives via a paper published in *Nature Astronomy*
- The headlines:
  - *The Verge*: Discovery of noxious gas on Venus could be a sign of life
  - *The New York Times*: On Venus, Cloudy With a Chance of Microbial Life
  - *The Guardian*: Scientists find gas linked to life in atmosphere of Venus
  - *The Daily Mail*: Is there alien life on Venus? Scientists detect traces of phosphine gas that could be coming from MICROBES in clouds swirling high in the planet's atmosphere

## BLC1, 2020

- Astronomers detect an unusual radio signal coming from the direction of Proxima Centauri, and they're trying to rule it out as Earth interference
- The news is leaked to *The Guardian*, which breaks the story
- The headlines:
  - *The Guardian*: Scientists looking for aliens investigate radio beam 'from nearby star'
  - *Space.com*: E.T. signal from Proxima Centauri?
  - *Forbes*: A \$100 Million Message From Aliens Next-Door? What We Know About The Mysterious 'BLC1' Radio Signal
  - *The Atlantic*: Astronomers are keeping a close watch on the next star over

# On the next potential detection of extraterrestrial life

News coverage depends on the nature of the discovery. Is it..

- fossilized microbes excavated from a Perseverance rover sample returned to Earth?
- hints of life in plumes spewing from Europa?
- an interstellar object that doesn't resemble any known asteroids or comets?
- strange chemistry in the atmosphere of an exoplanet?
- a recurring radio signal from another star that can't be explained as terrestrial?

# How will the press find out?

News coverage also depends on how findings become public. Is it through..

- a NASA press release?
- a peer-reviewed paper published in a journal?
- a leak to one or more news organizations?
- a White House press conference?
- someone accidentally tweeting about it?

# The ideal situation

Ingredients for accurate and informative news coverage:

- embargoed findings
- interviews with study authors
- interviews with outside sources
- history and context
- caveats
- forward-looking tone
- transparency



# The reality

There could be:

- leaks or broken embargoes
- sensationalized coverage
- disbelief or distrust from readers
- conspiracy theories
- an all-around messy experience

## After the breaking-news story

The press must follow new developments in the story:

- deeper follow-up coverage
- even more interviews
- even more caveats
- reminders of how science works

## Final thoughts

- What's newsworthy to the science press
- Takeaways for readers
- Lean into the term “aliens” a little bit