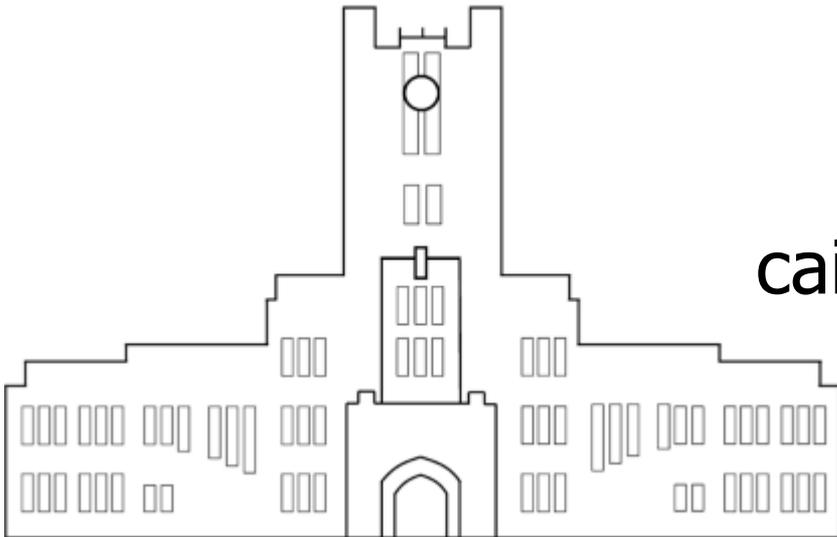
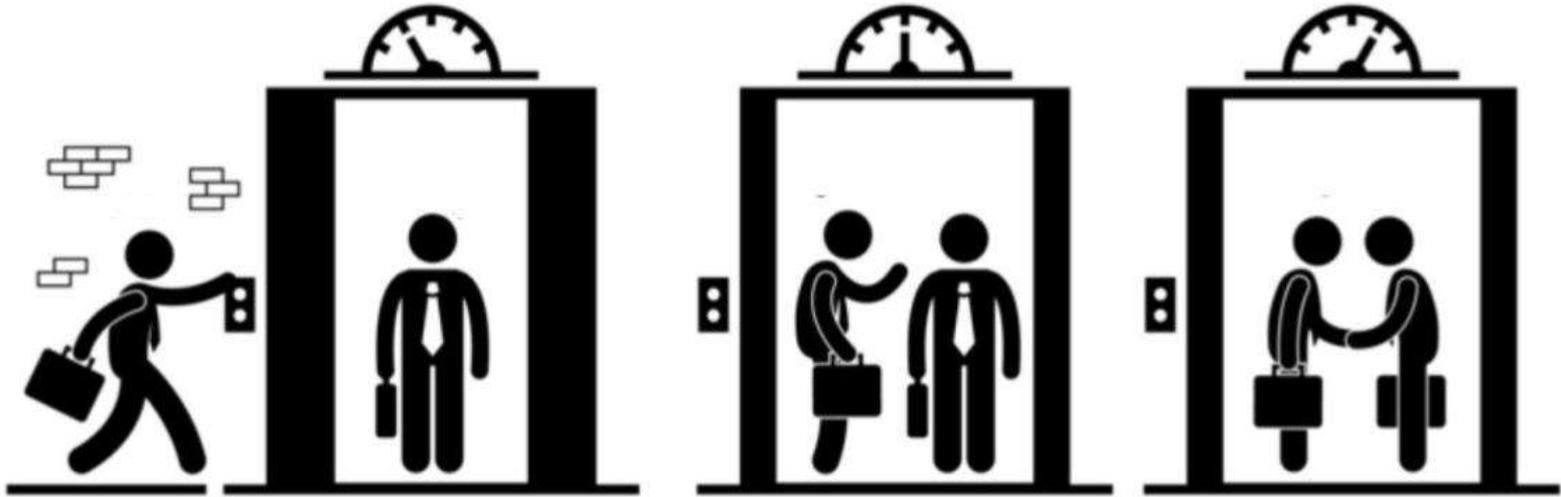


Elevator Pitch



Caitlin DEVOR
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13 June 2019

Introduce Yourself

What is your speciality?

Why are you here today?



How was your introduction?

How long was it?

What did you learn?

What is the next action?



Today's Workshop

What is an elevator pitch?

Know your audience!

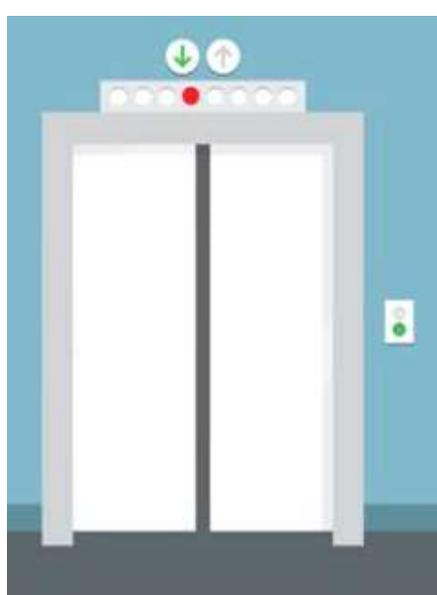
Narrative ABT

Analogies 101

Elevator pitch examples

Write your own elevator pitch!

Perform your own elevator pitch!



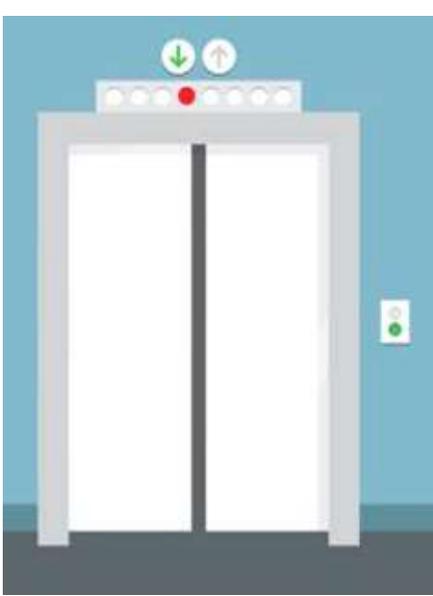
What are we doing?

No slides, no jargon, < 2 minutes

Why are we doing it?

A powerful introduction may lead to:

- collaborations
- funding
- recognition (citations/interviews)



Average TV interview spot is 0:45

Long TV interview spot is 2:30

Journalist telephone interview might be 5-15 minutes.

Similar Formats

Plain language summary in journals

Tweets

Falling Walls Lab

@Falling_Walls

Fame Lab

@FameLab

Three Minute Thesis

@3MT_Official

Science Cafe

Nerd Nite Tokyo

@nntokyo



Rules

<150 words (90 seconds)

No jargon!

Academic is no one's native language.

Practice out loud.

how you write \neq how you speak

Step 1

Who is your audience?



Designing a presentation
without an audience in mind
is like writing a love letter
and addressing it:

To whom it may
concern.

-AT&T executive



**The “general public”
does not exist.**

define YOUR audience

Age

Where did they grow up?

Where are they now?

Education

Job

Hobby

Who are their family or friends?

Your turn!

Choose an audience for your elevator pitch.
Describe them in as much detail as possible.

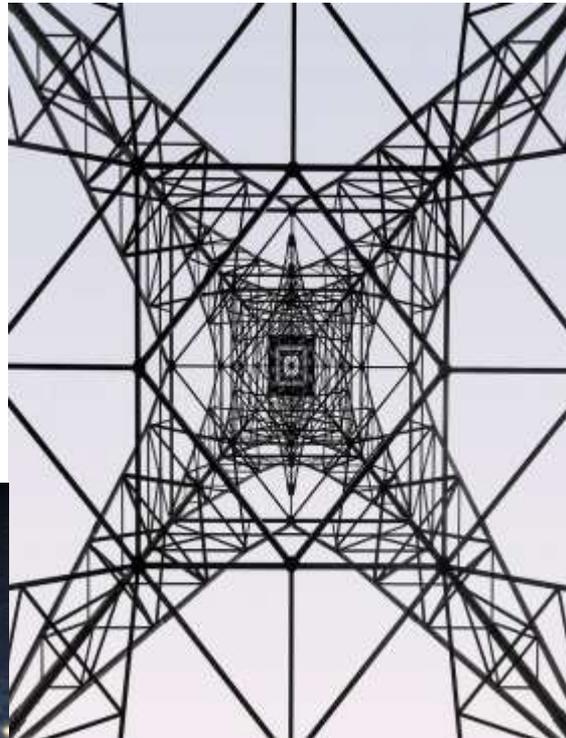
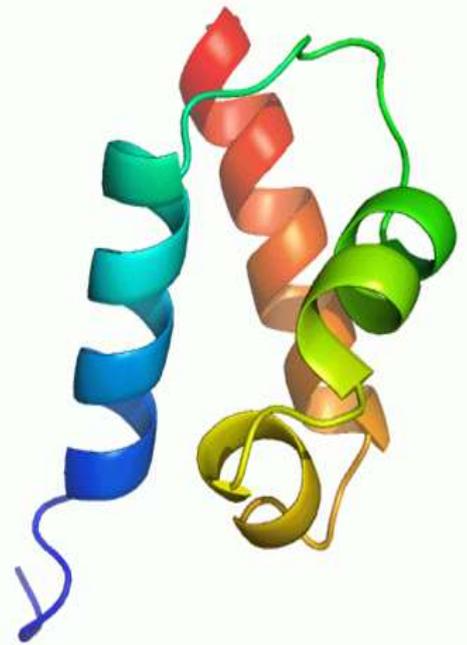
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DO YOUR BEST!

Step 2

Structure your pitch.



Simple Narrative Structure



And - But - Therefore

(agreement, contradiction, consequence)

or...

Personal intro, context, result, societal value

NARRATIVE SPECTRUM

AAA

and, and, and

ABT

and, but, therefore

DHY

despite, however, yet

BORING

INTERESTING

CONFUSING

Non
Narrative

Optimally
Narrative

Overly
Narrative

Narrative & Science Communication

Sci com tells the story of science.

Stories are built with ABT model.

A: And

B: But

T: Therefore

Academic papers supporting the use of narrative in scientific research:

1. www.pnas.org/cgi/doi/10.1073/pnas.1320645111
2. <https://doi.org/10.1371/journal.pone.0167983>

Narrative about Sci Com

A: Science uses logical, rational, **and** fact-based communication.

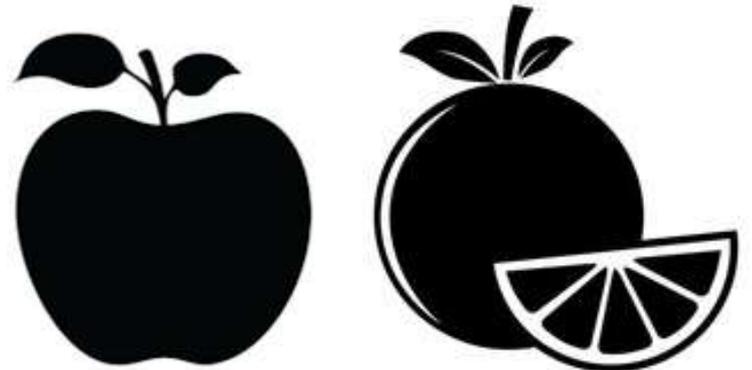
and = agreement, addition



Narrative about Sci Com

B: **But**, humans are emotional,
storytelling communicators.

but = difference, confrontation



Narrative about Sci Com

T: **Therefore**, science communicators are most effective when we tell an interesting, exciting, or emotional story with scientific facts.

therefore = consequence,
conclusion

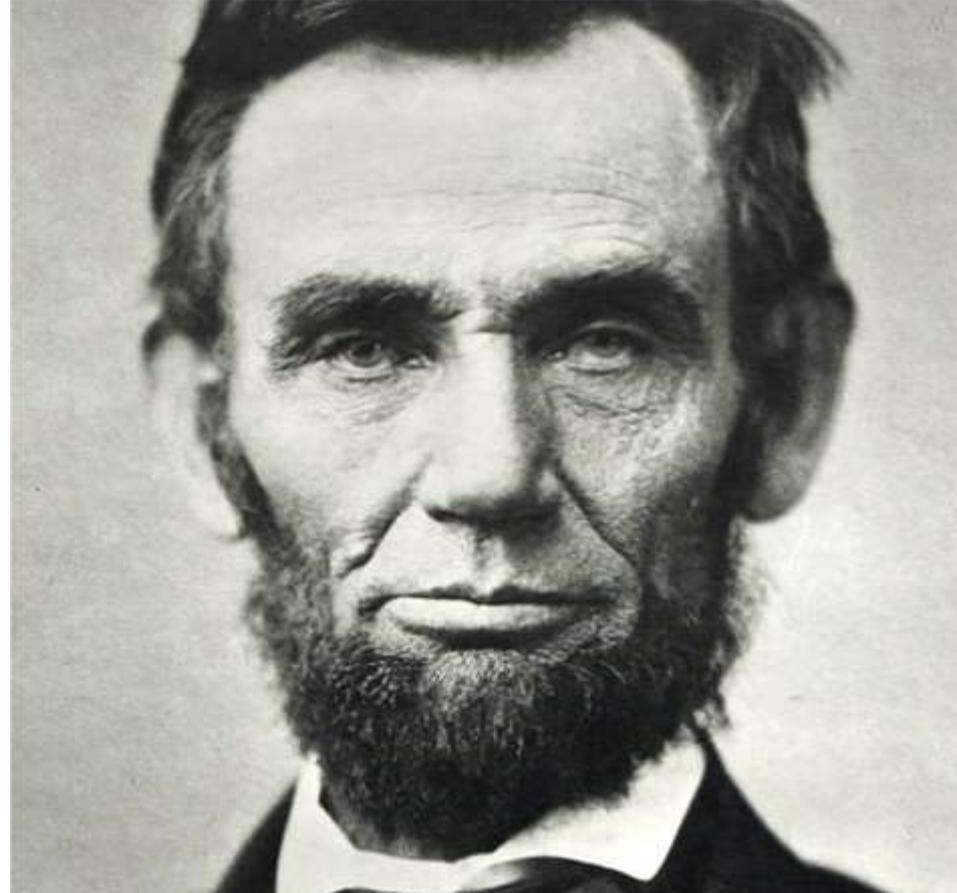


ABT in the Gettysburg Address

We are a great **and** mighty nation.

But, we are now engaged in civil war.

Therefore, it is up to us to make sure the lives lost on this battlefield did not die in vain.



Example by Randy Olsen, *Don't be such a scientist.*

ABT in “I have a dream.”

100 years ago, President Lincoln made a promise **and** part of that promise has been fulfilled.

But a century later, most of the same problems continue for African Americans.

Therefore, we are here today in D.C. to continue the effort.



Example by Randy Olsen, *Don't be such a scientist.*

Non-linear is OK

Don't bore us.
Get to the chorus.
-Bon Jovi

(also Aristotle)



Step 3

Give your pitch some flavor.



Analogies



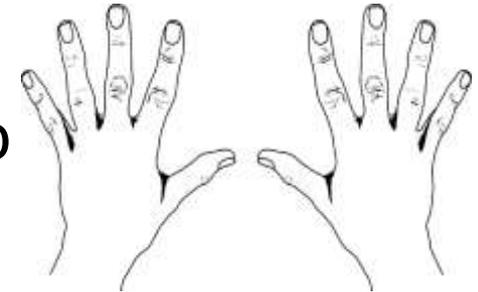
are to



as



are to



Connect what your audience cares about to what you care about.

Analogies, You, & Your Science

Analogies provide a mental framework or ladder to make an idea easier to understand.



2 parts of an analogy

1. The Source/Base

what is already familiar

1. The Target

what you want to understand

Effective science communication is to a researcher as good nutrition is to an Olympian.



Science communication is a researcher's *tamagoyaki*.

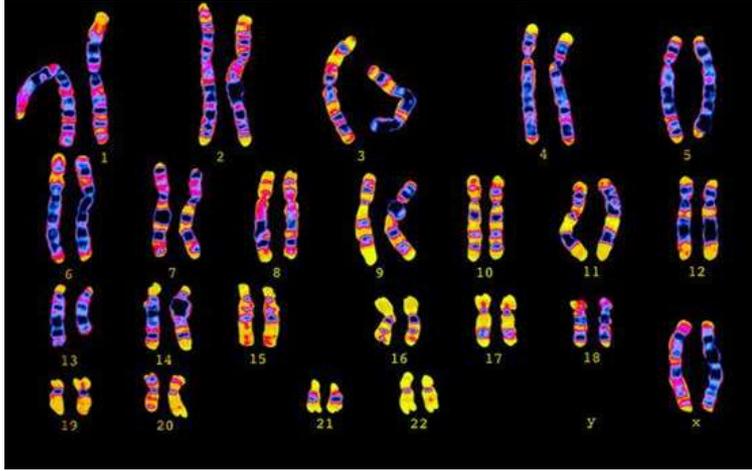


Emoji calendar of life on Earth

by @biolojical on
Twitter

Calendar of evolution:
Jan 1 🦠 1st life
Nov 2 🐟 1st animals
Nov 20 🦎 1st land animals
Nov 23 🦈 1st sharks
Nov 26 🐸 1st tetrapods
Dec 3 🌲 1st seed plants
Dec 9 🌋 🧠
Dec 10 🦖 1st dinos
Dec 11 🐭 1st mammals
Dec 19 🌻 1st flowers
Dec 20 🐦 1st birds
Dec 25 🦖 1st T rex
Dec 26 🦋 🧠
Dec 31 🙌 1st humans

Genome as recipe



DNA is a recipe for creating an organism.

Baking on a humid day makes heavier bread.

Baking with different yeast changes bread's texture.

In the same way, environmental conditions can change organisms with the same DNA.

Responsible Use of Analogy

1. Factual correctness
2. Socially acceptable language
3. Neutrality
4. Transparency

Professional Biologist, August 2014

DOI:10.1093/biosci/biu084

Try making a Food Analogy

If **your audience** thinks your research is interesting, they'll pay for your meal!



DIY Food Analogy

Who is the audience?

Try thinking about the opposite.

What is it not?

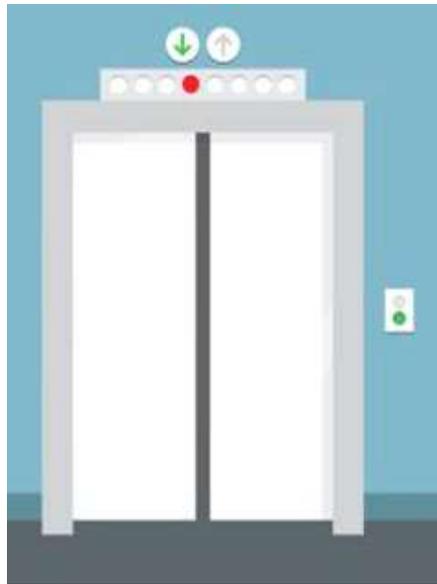
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DO YOUR BEST!

Putting it all together!

Examples of scientific



These examples are for whole careers, not specific research projects.

Michiyo Tsujimura (plant chemist)

wants government leaders to invest in research

I am Michiyo Tsujimura, someone who enjoys chemistry **and** drinking green tea.

But, the chemistry of Japanese tea was a mystery.

Therefore, I analyzed the compounds inside green tea, eventually increasing its global popularity.

Akira Endo (biochemist)

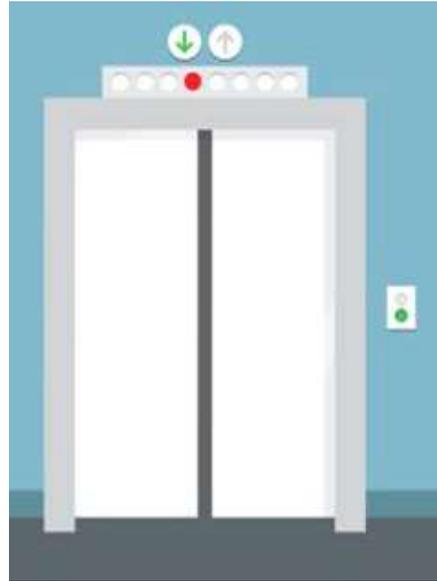
persuading a pharmaceutical company to stop polluting

I am Akira Endo **and** I believe nature can improve human health.

But, nature involves as much destruction as beauty.

Therefore, I found a chemical that fungi use to destroy bacteria, which doctors now use to stop heart disease.

Examples of scientific



ABT examples adapted into full Elevator Pitches.

Rebecca Wenker (sea whips)

wants fishers to participate in data collection

Hi, I'm Rebecca. I love to snorkel **and** eat seafood. I study an animal called the sea whip coral (*Leptogorgia virgulata*). Its soft, fan-shaped body provides a home for many types of fish right here in the Mid-Atlantic. Scientists **and** local experts know that sea whip corals are killed by algae blooms where fishing is common.

Rebecca Wenker (sea whips)

wants fishers to participate in data collection

But, little is known about our local reefs nor the individual sea whip corals that build them, despite their potential importance to commercial fisheries.

Therefore, I study the colony complexity, age, growth, **and** regrowth after damage of sea whips in the DelMarVa region to learn more about this ecosystem so we all can continue to enjoy and prosper from our ocean.

Bob Chen (protecting shorelines)

wants lawmakers to fund research

The Boston Harbor Islands are like a natural shield, protecting Boston from damage by current **and** future storm surge and waves. **And** there are tons of dredged-up sediments available for large scale landscape alterations.

But, the dredged materials are not currently used to protect the shorelines.

Bob Chen (protecting shorelines)

wants lawmakers to fund research

Therefore, I want to start a Living Laboratory project to study the reuse of dredge materials along the Boston Harbor Islands. Investing in this research will lead to cost-effective ways to protect our shoreline environments **and** communities in your local constituencies by efficiently using already available resources.

Your turn!

Create your elevator pitch for your audience.



Always Remember

The audience is your friend.
They want to see you do well.



Practice with your neighbor!

Who was the audience?

Did you hear any jargon?

What was interesting?

What was confusing?

How much time did it take?

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DO YOUR BEST!

Go* to the elevator!

(*not really, it'd be crowded)

Who was the audience?

Did you hear any jargon?

Do you want a longer conversation?

Do you want to tell other people?



Where to use these skills?

Twitter

Interdisciplinary or industry collaborations

Conferences or events

When the Dean is in the elevator

Being concise is hard. Practice!

“I have made this letter longer than usual because I have not had time to make it shorter.”

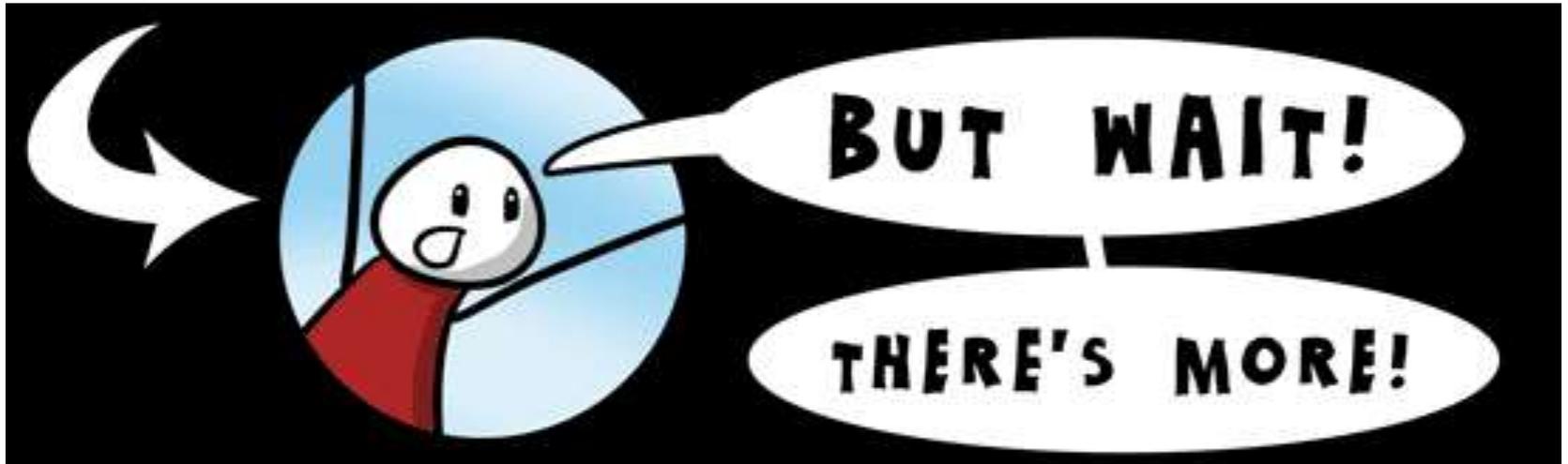
-Blaise Pascal, French
mathematician and physicist

More skills?

Create an article with Public Relations group!

Practice elevator pitch in real life.

See the resources on next page.



Additional Resources

American Geophysical Union, plain English summaries

<https://sharingscience.agu.org/creating-plain-language-summary/>

UK National Institutes of Health Research, guide to plain English

<http://www.plainenglish.co.uk/files/howto.pdf>

Blog entry with links to additional resources

<http://thepostdocway.com/content/elevator-pitches-scientists-what-when-where-and-how>

2014 Nature Jobs Expo

<http://blogs.nature.com/naturejobs/2014/12/22/how-to-communicate-your-science-in-the-best-way>

The Use of Metaphor as a Science Communication Tool: Air Traffic Control for Your Brain, Journal of Applied Communication Research, DOI: 10.1080/00909882.2013.836678

The War on Prevention: Bellicose Cancer Metaphors Hurt (Some) Prevention Intentions, Personality and Social Psychology Bulletin DOI: 10.1177/0146167214557006

Alan Alda Center for Communicating Science

<https://www.aldacenter.org/>

#BetterPoster on Twitter

<https://www.npr.org/sections/health-shots/2019/06/11/729314248/to-save-the-science-poster-researchers-want-to-kill-it-and-start-over>

Additional Resources - Visual Competitions

Agar Art: <https://www.asm.org/index.php/public-outreach/agar-art>

Science data vis video competition:

http://www.sciencemag.org/projects/data-stories?_ga=1.158645882.1776168030.1466616048

Arizona State video competition:

<https://riskinnovation.asu.edu/scienceshowcase2017/>

Wellcome Trust Image Awards Competition:

<http://www.wellcomeimageawards.org/about/about-the-awards/>

Royal Society Photography Competition:

<https://royalsociety.org/journals/publishing-activities/photo-competition/>

Nature #ScientistatWork Competition:

<http://blogs.nature.com/naturejobs/2017/03/01/welcome-to-the-scientistatwork-photo-competition/>

British Society for Cell Biology Image Competition

<http://bscb.org/competitions-awardsgrants/image-competition/image-competition-rules/>

British Engineering and Physical Sciences Research Council Photo

Competition: <https://www.epsrc.ac.uk/newsevents/events/photocomp2017/>

MILSET Science Photo Contest (age must be <35): <https://spc.milset.org/>

Find UTokyo



<https://www.u-tokyo.ac.jp/focus/en/>



The University of Tokyo



@UTokyo.news.en

@UTokyo.News



@UTokyo_news_en

@UTokyo_news

Japanese Researchers on Twitter

(in no particular order)

1. Noriko Osumi (Neuroscientist at Tohoku University) @sendaitribune
2. Masayo Takahashi (RIKEN developmental biology) @masayomasayo
3. Jun Rekimoto (Joho-gakkan IIIS, human augmentation) @rkmt
4. Ken Mogi (Sony, cognitive neuroscience) @kenmogi
5. Masahiko Inami (RCAST, engineering professor) @drinami
6. Sputniko! (artist, IIS Design Lab) @5putniko
7. Shunji Yamanaka (IIS, design) @Yam_eye
8. Akiko Shimizu (Grad. School of Arts & Sciences, feminism/gender studies)
@akishmz
9. Shinichiro Kumagaya (RCAST, user-led research) @skumagaya
10. Masanori Okanishi (Grad. School of Science, marine brittle stars) @Mokanishi
11. Chihiro Kinoshita (AORI, sea turtle biologging) @chimomonga
12. Ryugo Hayano (nuclear physics, retired UTokyo) @hayano
13. Robert Geller (seismologist, retired UTokyo) @rjgeller

Other Researchers on Twitter (in no particular order)

1. Liz Reed (palaeontology) @LizReed_palaeo
2. Sarah Keenihan (immunologist turned science writer) @sciencesarah
3. Dr Kate Grarock (ecology) @KateGrarock
4. Prof Emma L Johnston (marine ecology) @DrEmmaLJohnston
5. Dr Katherine J Mack (astronomer) @AstroKatie
6. Erinn Fagan-Jeffries (entomology PhD student) @ErinnFJ
7. Dr Bryan Lessard (entomologist) @BrytheFlyGuy
8. Neil deGrasse Tyson (astronomer, physicist) @neiltyson
9. Andy Baker (groundwater geologist) @baker_and
10. Chris Hadfield (Canadian astronaut) @Cmdr_Hadfield

It is not science, but see @ASmallFiction for storytelling inspiration.

Ogino Ginko (gynecologist)

speaking to hospital managers at a conference

Tweet: I needed medical care & realized all healthcare professionals had the same life experience. So I became a gynecologist & diversity advocate.

And-But-Therefore Model

I am Ogino Ginko, a gynecologist and the first Japanese woman to obtain a license to practice Western medicine. But, when I started practicing medicine I watched a homogenous medical community struggle to serve a diverse patient community. Therefore, I now advocate for increased diversity in healthcare professions.

Ogino Ginko (gynecologist)
speaking to hospital managers at a conference

90 Second Pitch - 153 words

My name is Ogino Ginko. In 1885, I became the first Japanese woman to obtain a license to practice Western medicine. I provided essential Ob/Gyn services to my community and advanced diversity in the medical profession.

The goal of becoming a doctor first occurred to me when I was sixteen and I needed to visit a doctor for gynecological treatment. I felt uncomfortable having no choice but to visit a male doctor, so I decided to enroll in medical school.

I specialized in obstetrics and gynecology and advanced women's health care. I worked to create a more diverse community of medical professionals to better serve our patients. Regardless of your speciality, you can improve global health by welcoming and fostering diversity in your local health care settings. An open health care workforce ensures that we can more easily reach the most vulnerable members of our society and improve everyone's quality of life.

Michiyo Tsujimura (plant chemist)

wants government leaders to invest in research

Tweet: Green tea drinker & analytical chemist. 1st to ID Vitamin C in tea leaves. Ask me how science & business overlap.

And-But-Therefore Model

I am Michiyo Tsujimura, someone who enjoys chemistry and drinking green tea. But, the chemistry of Japanese tea leaves was a mystery. Therefore, I extracted and analyzed the compounds inside green tea, eventually increasing its global popularity.

Akira Endo (biochemist)

persuading a pharmaceutical company to stop polluting

Tweet: Professional biochemist & amateur naturalist. I found a way for fungi to stop heart disease. Protecting nature protects human health.

And-But-Therefore Model

I am Akira Endo and I believe nature can improve human health. But, nature involves as much destruction as beauty. Therefore, I found a chemical that fungi use to destroy bacteria and doctors now use to stop heart disease.

Tomoko Ohta (population geneticist)

speaking to SciFi enthusiasts

Tweet: I track subtle mutations across populations. No radioactive spiders or X-men here. I created nearly neutral theory.

And-But-Therefore Model

I am Tomoko Ohta and I am an expert in evolution. But, the “survival of the fittest” model didn’t make sense for the proteins and populations I studied. Therefore, I pioneered a new theory that better models evolution.

Michiyo Tsujimura (plant chemist)
wants government leaders to invest in research

90 Second Pitch - 157 words

Do you enjoy a cup of green tea? My name is Michiyo Tsujimura and I was the first to discover green tea contains Vitamin C. This discovery helped to boost the drink's global popularity.

After finishing a science degree, I worked as a teacher. Eventually my interest in science led me back to research labs where I started analyzing tea. I used a variety of techniques to extract different chemicals out of tea leaves. I studied the weight and shape of those chemicals to identify what makes Japanese green tea unique.

Research on food and nutrition provides everyone with health benefits, but agricultural chemistry can also affect global economics. After my discovery of Vitamin C in green tea, North America started importing more tea leaves. I registered a patent on my method of extracting vitamin C crystals from plants in 1935. Scientists and business leaders can collaborate to ensure discoveries have the best effect possible on society.

Akira Endo (biochemist)

persuading a pharmaceutical company to stop polluting

90 Second Pitch - 154 words

My name is Endo Akira and my childhood fascination with fungi led me to a career where I uncovered one of the most common prescription drugs in history.

As a child, I saw fungi protecting themselves from other organisms. As a researcher, I suspected that fungi defeat bacteria by stopping the creation of cholesterol, the same cholesterol that causes heart disease in people.

There is a natural roadblock in the pathway to create cholesterol. An enzyme must open this roadblock before the process can continue. I guessed that a chemical that could stop the enzyme would protect the roadblock, prevent cholesterol from forming, and stop heart disease. I and my colleagues tested over 3,800 fungi before we found one such chemical.

Today, these chemicals are known as statin medications and help many people stay healthy. Scientific advances like these often come from the natural world. Protecting the environment preserves a source of future innovation.

Tomoko Ohta (population geneticist)
speaking to SciFi enthusiasts

90 Second Pitch - 159 words

Superheros, Jurassic Park, zombie movies. Genetic mutations are often great or evil in fictions, but real medical advances are possible if we understand how less extreme mutations affect DNA. My name is Tomoko Ohta and I study nearly neutral mutations to understand the complexities of evolution.

Some parts of the genetic code change faster than others. I searched for an explanation and built the idea that some mutations have subtle effects based on where they occur and what type of change they make.

I suggested the nearly neutral theory of molecular evolution in 1973. The DNA sequencing revolution 20 years later created data that shows how subtle genetic changes can alter an individual's health and an entire population's evolution. The influence of nearly neutral mutations helps explain complex biological systems like immunity.

Theoretical research finds ways to understand a problem now so we can solve it in the future. The process is as dramatic as any sci-fi plot.

Alternative structure...

Elevator pitches are popular in business.

9C of an Elevator Pitch, according to business expert

1. Concise
2. Clear
3. Compelling
4. Credible
5. Conceptual
6. Concrete
7. Customized
8. Consistent
9. Conversational