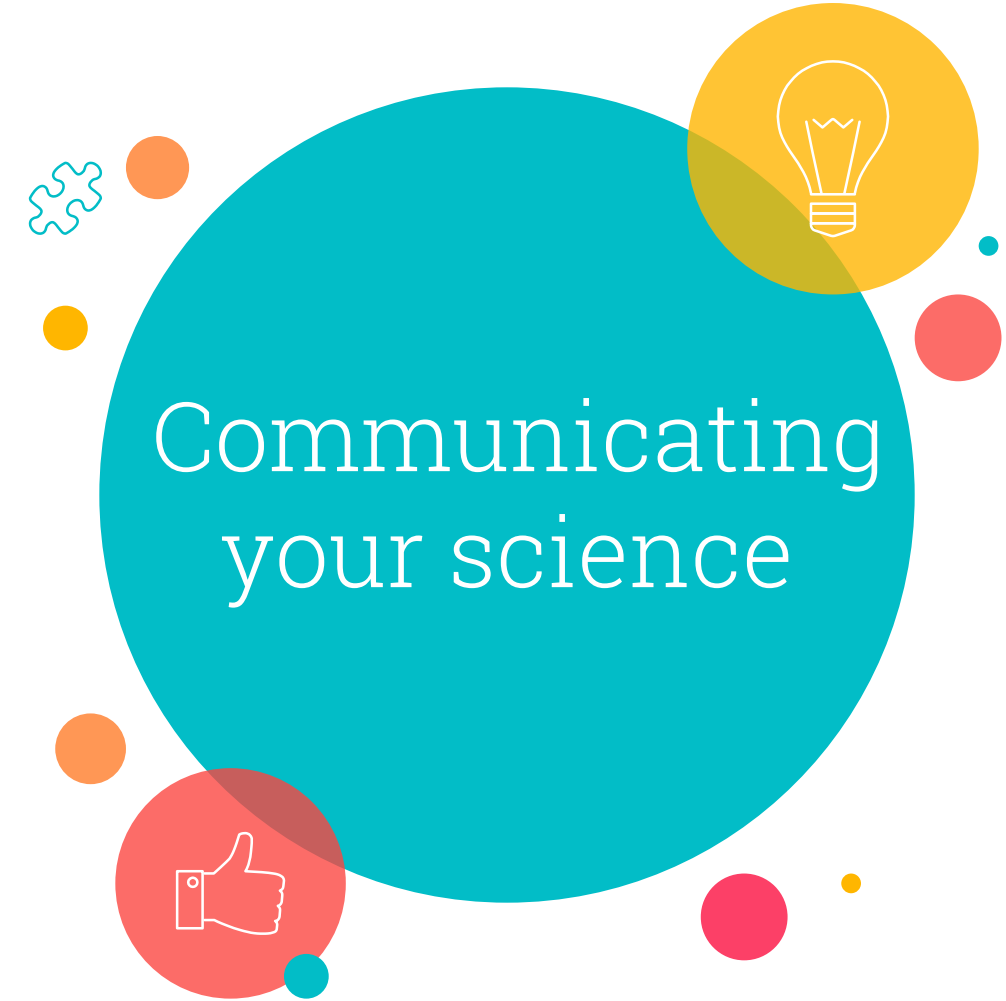
Communicating your science




Why does
it matter?
Why should YOU do it?

The internet is the primary source for science information **for 60% of Americans**

Science & Engineering Indicators, ed. J. Gawalt (2008)

8% of Americans say **scientists contribute "not much" or "not at all" to society**

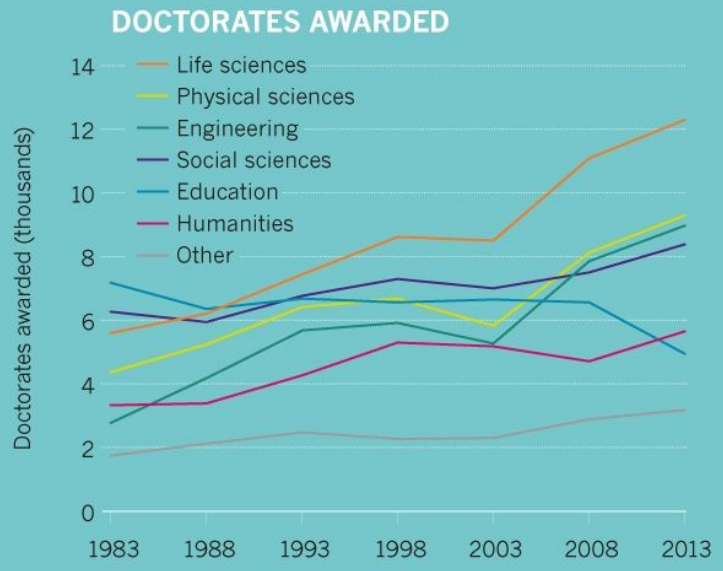
(General public appreciation of science also dropped to 65% (from 70%, 2009 to 2013)

Public and Scientists' Views on Science and Society, Pew Research Center (2015)

A Crowded PhD Market

UPS AND DOWNS OF PHDS

The number of students in the United States who graduate with a doctorate has increased, with the most rapid rise in life-sciences degrees. The proportion of PhDs in permanent academic positions is falling, and the number graduating with no job or postdoc lined up is on the rise.



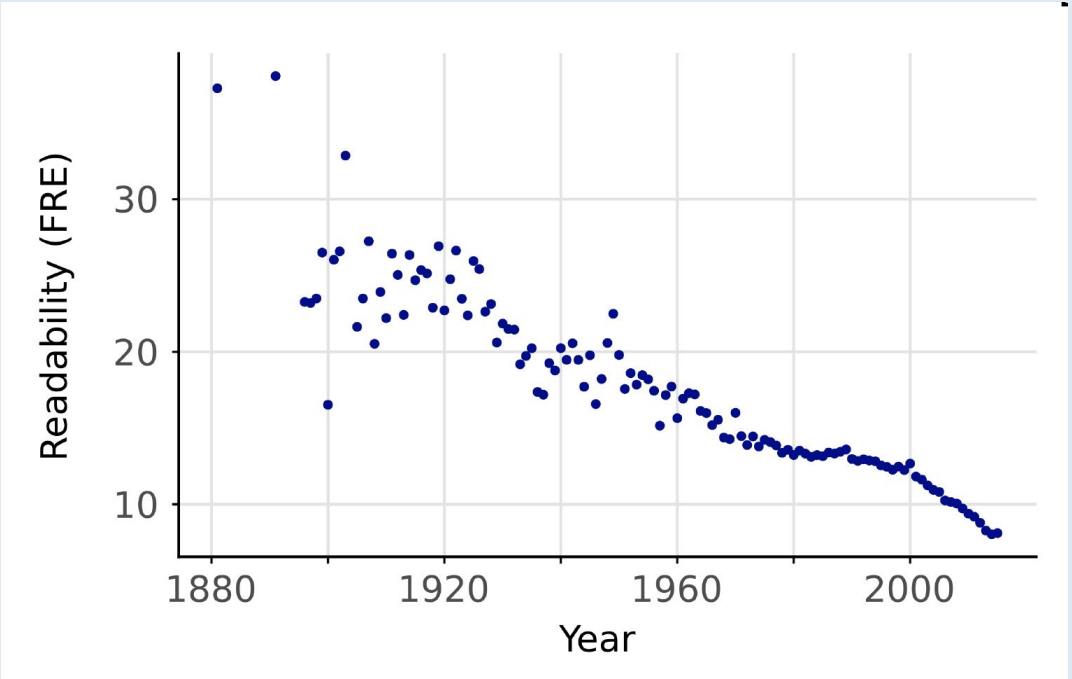
National Center for Science & Engineering Statistics & *Nature* (Dec 2015)

AAAS Researcher Competencies (7)

AAAS Researcher Competencies

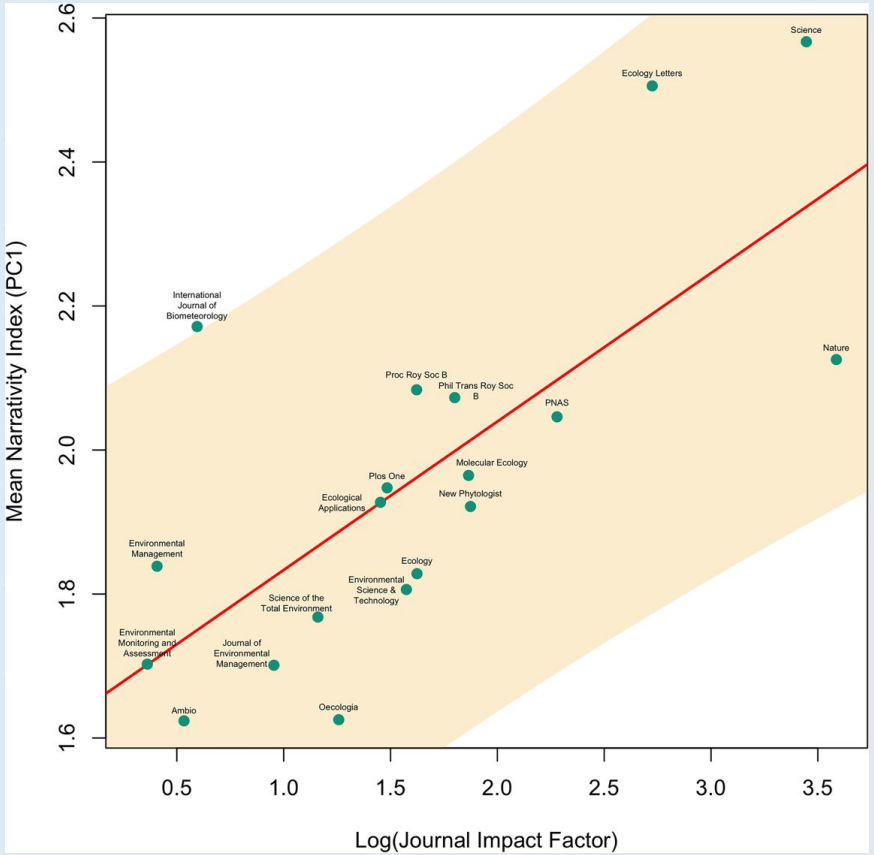
- Scientific Knowledge
- Research Skills
- Communication
- Management/Leadership
- Professionalism
- Responsible Conduct of Research
- Career Management

Readability of Scientific Journal Articles



The readability of scientific texts is decreasing over time, Plavén-Sigray, Matheson, Schiffler, Thompson (pre-print bioRxiv)

Narrativity of Journal Abstracts



A Hiller et al, Narrative Style Influences Citation Frequency in Climate Change Science, PLoS ONE (2016)

National Survey of Employers Top Ten Priorities

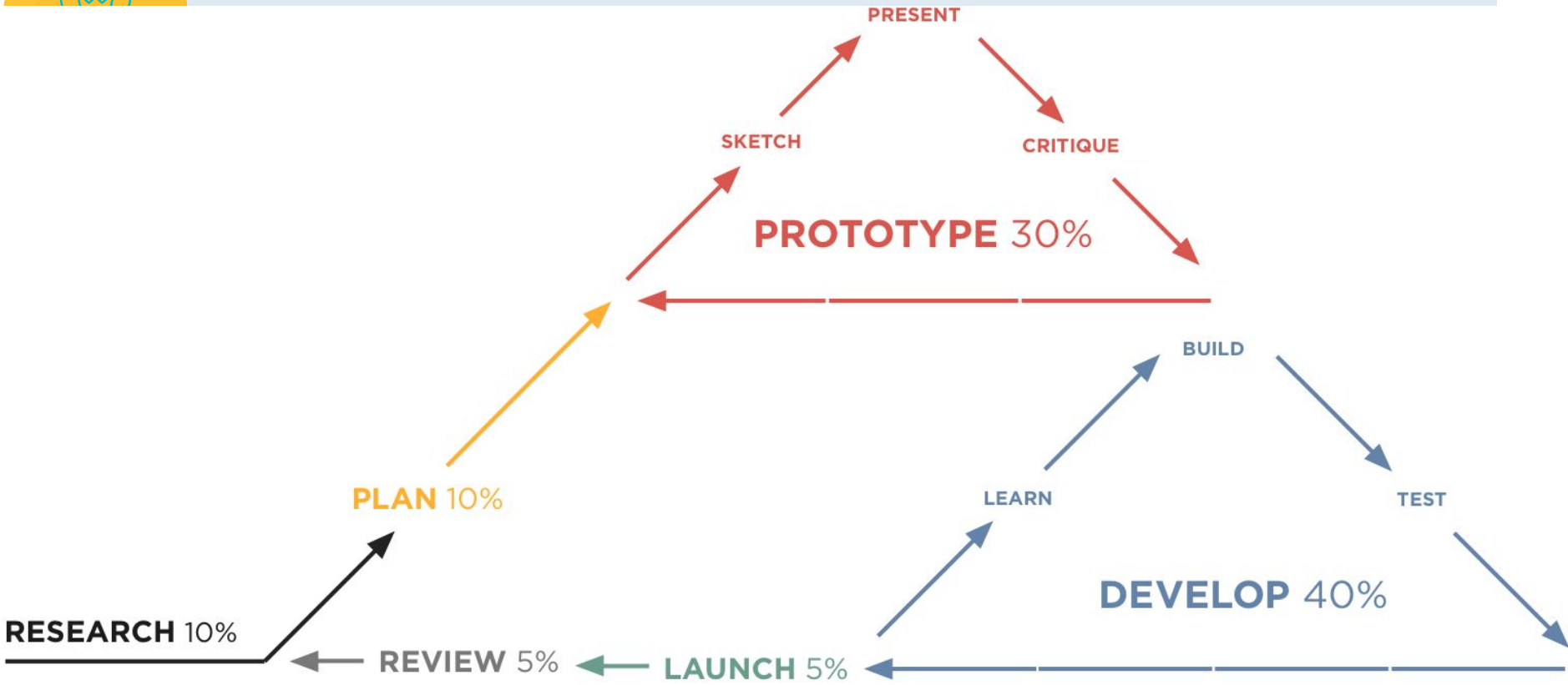
National Association of Colleges and Employers Survey (2016)

National Survey of Employers Top Ten Priorities

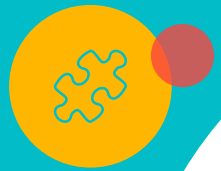
#1: Verbally communicate with persons inside and outside the organization

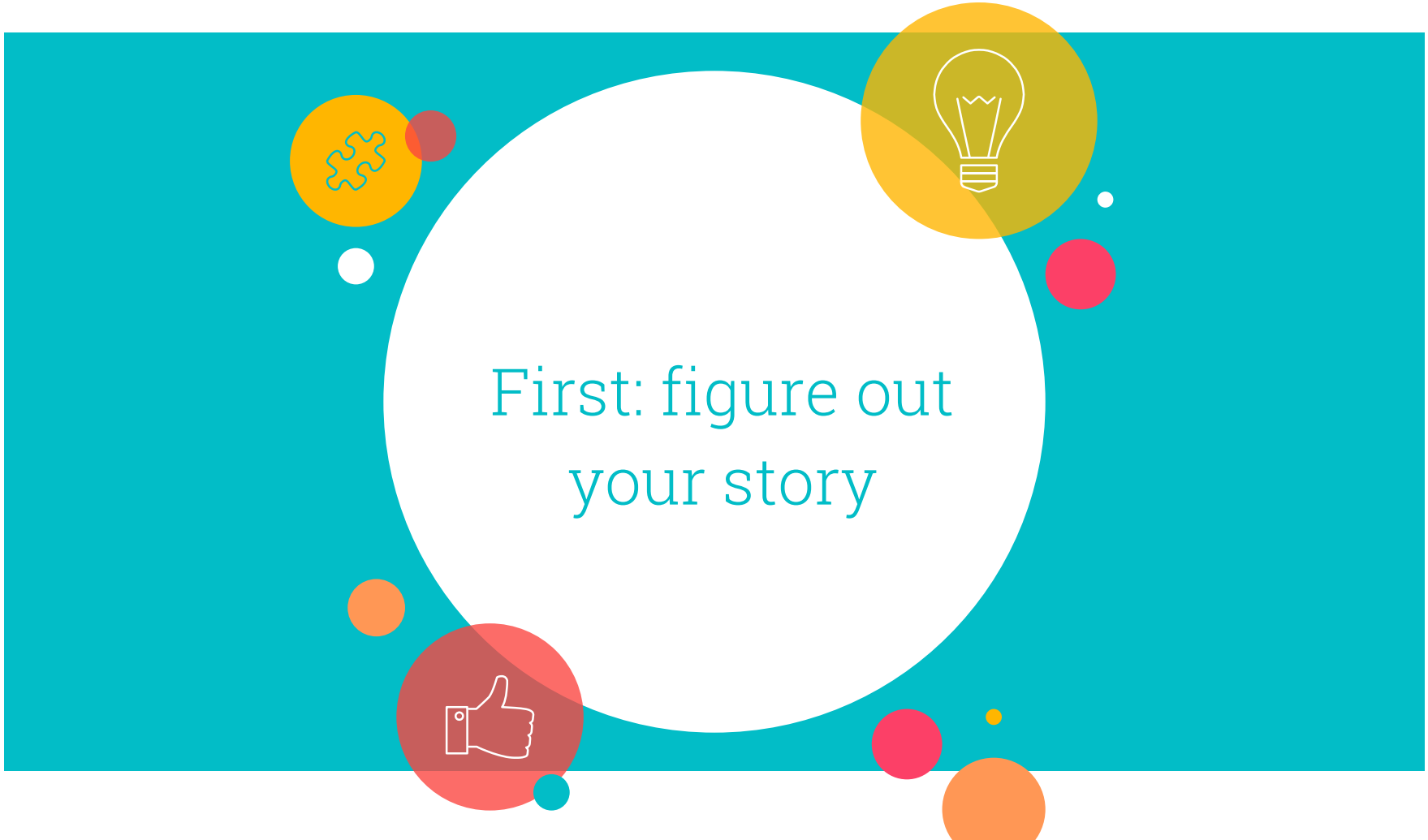
National Association of Colleges and Employers Survey (2016)

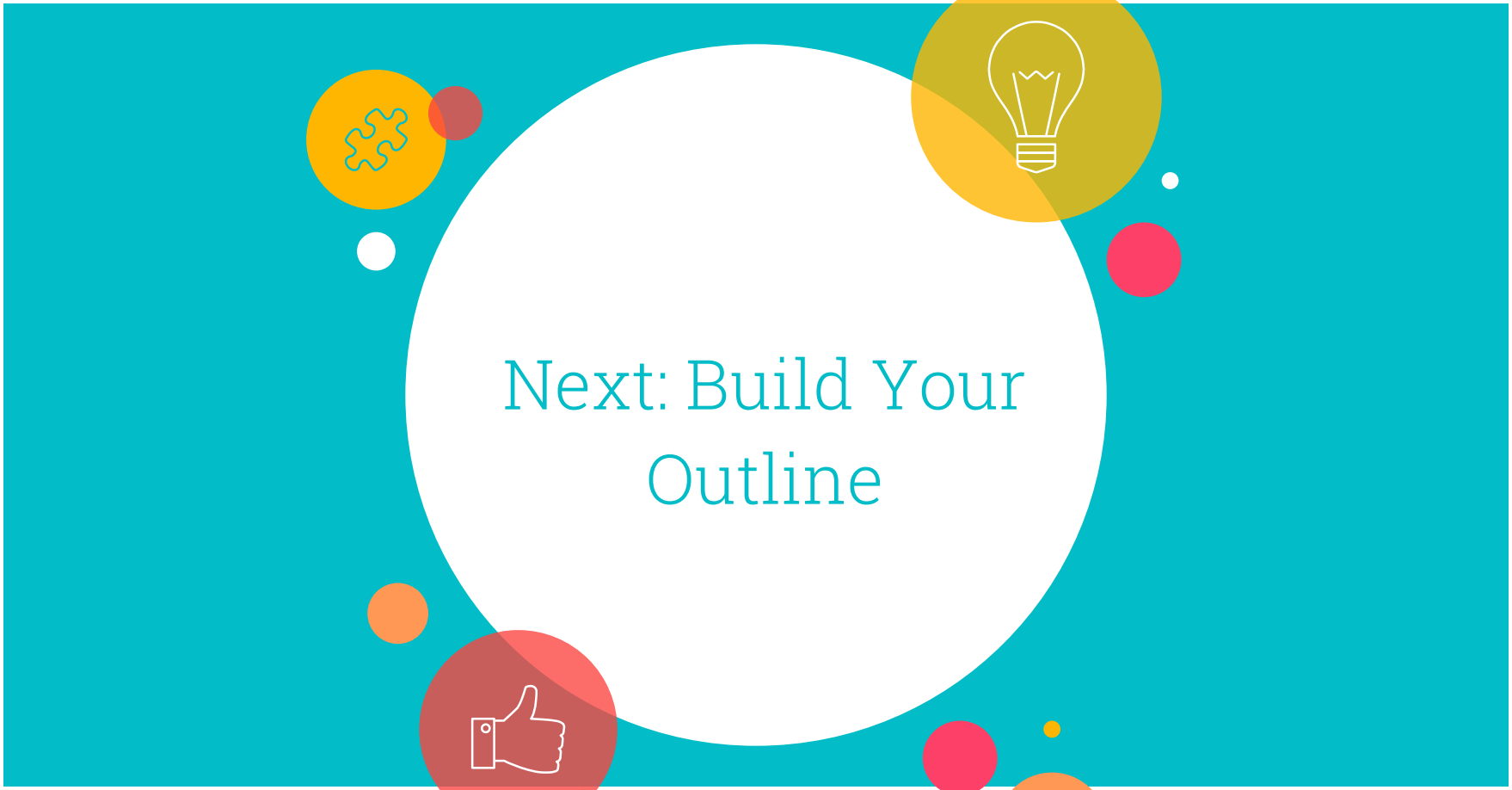

So how
learn to
do we do it?


PRESENT
SKETCH
CRITIQUE
PROTOTYPE 30%
BUILD
PLAN 10%
LEARN
TEST
DEVELOP 40%
RESEARCH 10%
REVIEW 5%
LAUNCH 5%

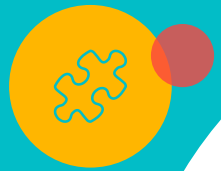
The Funnel of User-Centered Comms Design




First: figure out
your story


Next: Build Your Outline

Next Steps



Our Revision Process

THIS WEEK:	Populate & reflect on your outline
NEXT:	Draft & develop text
7/27	Rough Draft due for peer editing
8/6	Final Draft due
8/13	Skype meeting w/ Sara's editing notes*
8/21	Final revisions & formatting to Aaron

Editing Meetings

On 8/6:

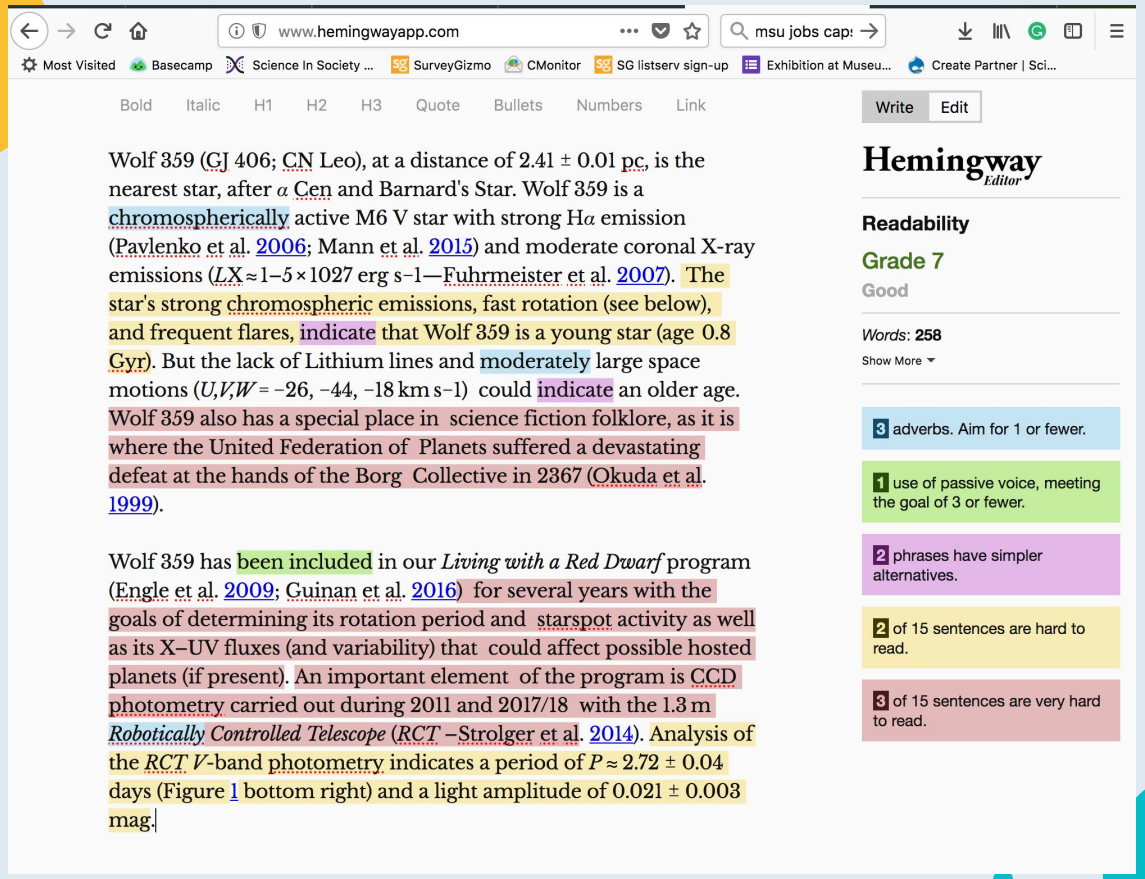
- Email saramgrady@gmail.com a Google Doc of your revised text
- Include your name, email address, PI's name
- Sign up for an editing slot on 8/13 at **http://bit.ly/2u4hLEk**

Revision Resources

Hemingway App

http://www.hemingwayapp.com/

Hemingway App

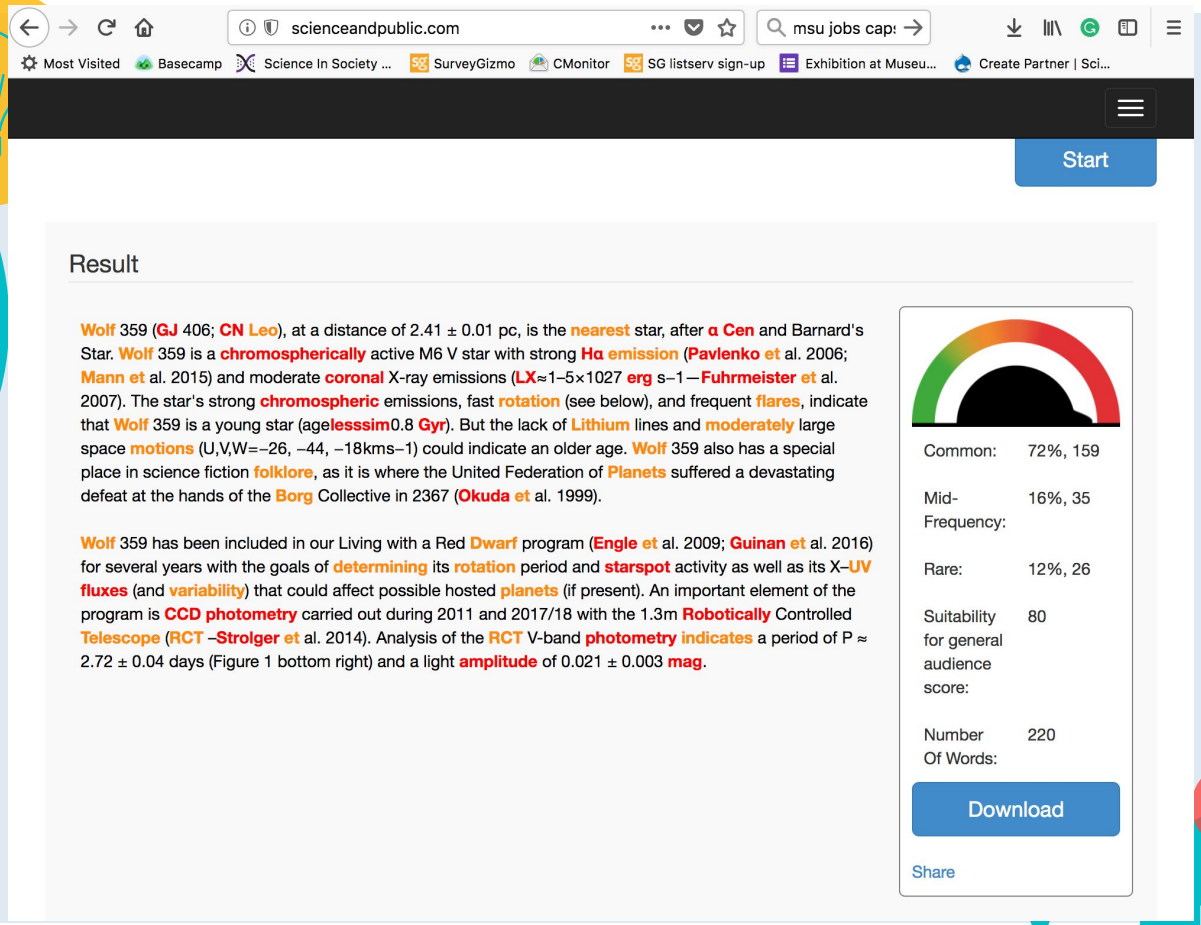


http://www.hemingwayapp.com/ http://iopscience.iop.org/article/10.3847/2515-5172/aabaf4

Dr-Jargonizer

http://scienceandpublic.com/

Dr-Jargonizer

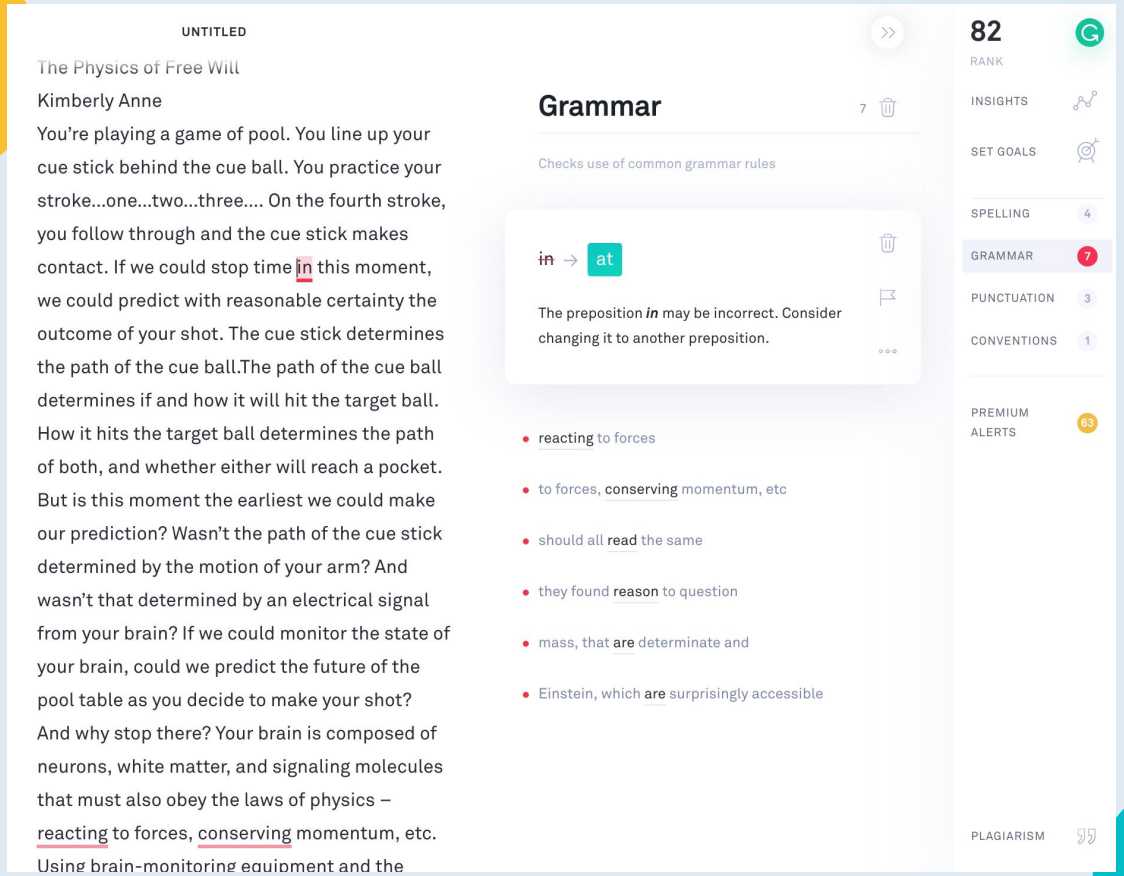


http://scienceandpublic.com/

Grammarly

https://app.grammarly.com

Grammarly



http://www.hemingwayapp.com/

http://iopscience.iop.org/article/10.3847/2515-5172/aabaf4

Helpful Reading

The Science of Scientific Writing, Gopen & Swan

Writing Science in Plain English , Anne Greene

Why Academics Stink at Writing, Steven Pinker

\+ Your university writing center, the library, and the internet

Thanks!

Any questions?

sara.grady@northwestern.edu saramgrady@gmail.com

@smgrady

sis.northwestern.edu

Slide template: Slide Carnival; Images: Pixabay, Wikimedia, PNAS, University of BC, Science in Society & Partners

Old ideas first, new ideas follow

Word choices & sequences focus attention and underline purpose

Sentences have only one main point

Sentence structures emphasize key points (stress positions)

Topic & stress positions string together to develop paragraphs in sequence

COMMUNICATION TIPS

1. Why does this matter? (What's the Big Idea?)
2. How does it connect to you/me/us?
3. How is it related to things your listener already knows?
4. What examples or definitions or analogies might you need to help describe this?

SlidesCarnival icons are editable shapes.

This means that you can:

- Resize them without losing quality.
- Change line color, width and style.

Isn't that nice? :)

Examples: