

SEPTEMBER 17, 2024

STRATEGIC COMMUNICATIONS TO BUILD SUPPORT



KATIE YURKEWICZ

Chief Communications Officer
Senior Director for Communications and Public Affairs
Argonne National Laboratory



Photo: Smith College

DZero CMS
CDF ATLAS

CEP2011
3/10-3/17
Conference
3/17-3/23

Don't forget
to Submit
Paper!!

$$F_{\mu\nu} F_{\mu\nu} - \frac{1}{4} (\partial_\mu B_\nu - \partial_\nu B_\mu)^2$$

$$(\phi^\dagger \phi - \frac{v^2}{2})^2$$

$$- i \frac{1}{2} g' B_\mu \not{\partial} \phi$$

MINIMUM
NOT AT 0!

Options

LHC
H → γγ

TeVatron

Higgs

Associated
Production

b, τ, W⁺

\bar{b}, τ^-, W^-

Higgs

Photo: Fermilab



Photo: Maize & Blue Nation, [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/), via Wikimedia Commons

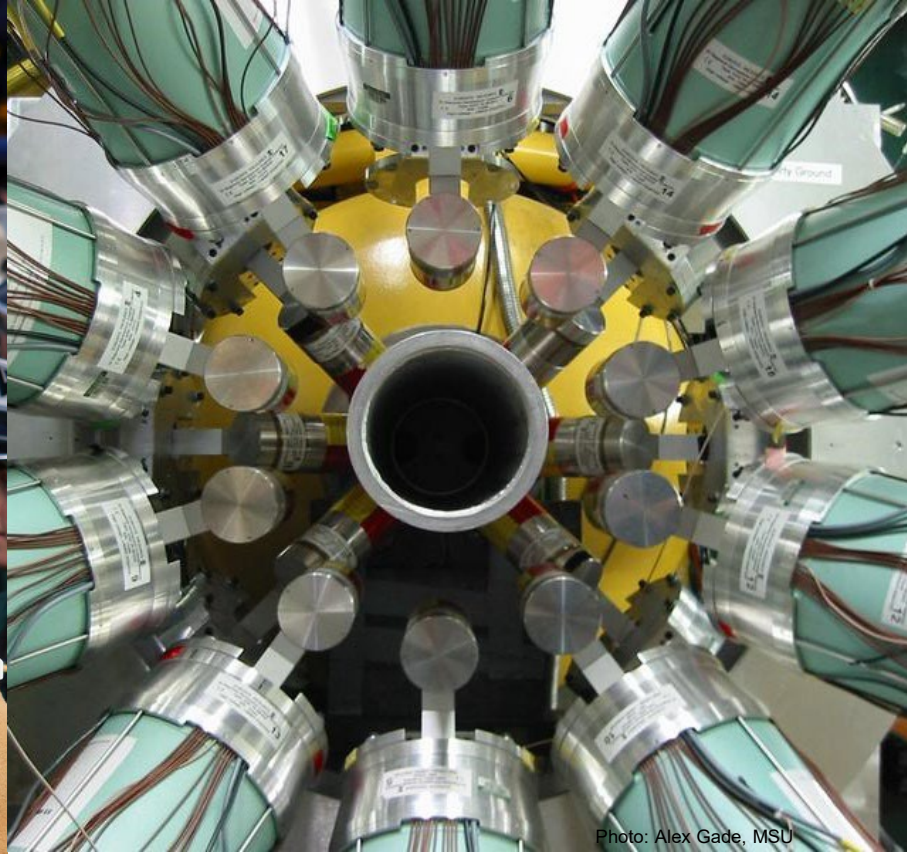


Photo: Alex Gade, MSU



Photo: Reidar Hahn/Fermilab



Photo: Fermilab

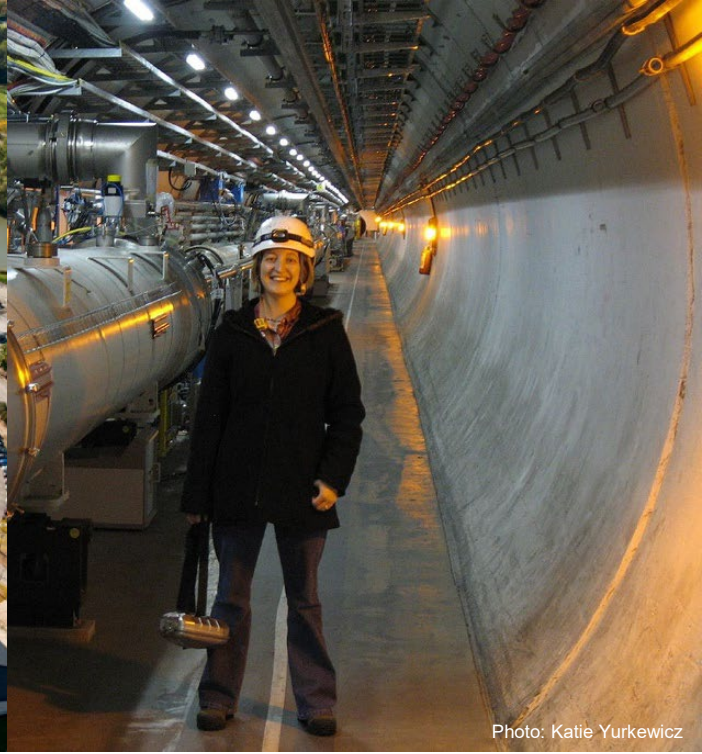


Photo: Katie Yurkewicz



Photo: Argonne National Laboratory

STEPS TO STRATEGIC COMMUNICATION

Identify your goal



Know your audience



Connect and engage

IDENTIFY YOUR GOAL

What do you want to accomplish?

- Education
- Appreciation
- Action
- Behavior change



Goal

Audience

Connect

KNOW YOUR AUDIENCE

Who do you want or need to reach?

- Sectors, professions?
- Positions?
- Geographic areas?
- Demographics?

What are their characteristics?

- Background in science (if any)?
- What do they want/need from you?
- What may they bring to the interaction?
- Do you have anything in common?
- How much of their dedicated attention will you have?

Goal

Audience

Connect

CHOOSE YOUR VEHICLES



Photo: Argonne



KATRIN HEITMANN
Deputy Division Director, High Energy Physics

Dark Universe

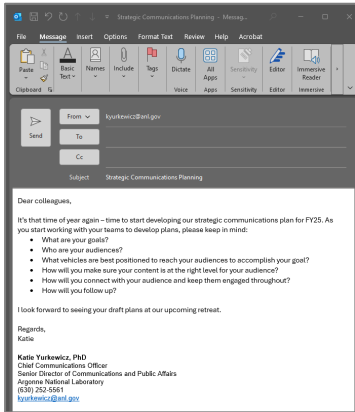
- Understanding the Secrets of the Dark Universe
- Vera C. Rubin Observatory
- Using the Rubin Observatory Dataset
- Conducting Simulations

Future of Exascale Computing

Argonne 75



Photo: Argonne



ARGONNE TANDEM LINAC ACCELERATOR SYSTEM
By the numbers

The Argonne Tandem Linac Accelerator System (ATLAS) is the world's first superconducting linear accelerator for heavy ions. This is the energy domain best suited to study the properties of the nucleus, the core of matter, and the fuel of stars.

- 6,000+** hours of beam time delivered annually
- 40%** of requested beamtime approved on high priority
- 30** scientific and user support staff
- 250** heavy ion beams provided by ATLAS
- 300+** unique users in a typical year
- 60%** from U.S. national labs and universities
- 40%** from international labs and universities
- 1-2** calls for proposals per year
- 25%** of users are students
- 15+** states
- 15+** countries

Our heavy ion acceleration capability is **10-20%** the speed of light



Opinion | Technology

The Metaverse Is Coming, and the World Is Not Ready for It

The physical metaverses may be ready for tomorrow.

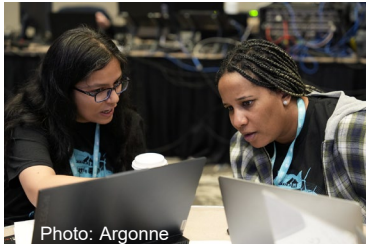


Photo: Argonne



Photo: Anna Shvets



CONNECT AND ENGAGE

Build trust and connection from the start



Common interests
Honesty, openness
Perceived expertise
Information consistent with their values



Persuasion
Self-interest



A GOOD FOUNDATION FOR TRUST

(But falling since the pandemic)

- More than 80% of U.S. adults agree that science provides more opportunities for the next generation
- 78% of U.S. adults agree that the government investments in scientific research are usually worthwhile
- 73% have at least a fair amount of confidence in scientists to act in the best interest of the public
- 52% say it is very important to be a world leader in scientific achievements (37% say it is somewhat important)

National Science Board, National Science Foundation, February 2024, [“Science and Technology: Public Perceptions, Awareness, and Information Sources”](#)
Pew Research Center, November 2023, [“Americans’ Trust in Scientists, Positive Views of Science Continue to Decline”](#)

LESS JARGON, MORE ENGAGEMENT

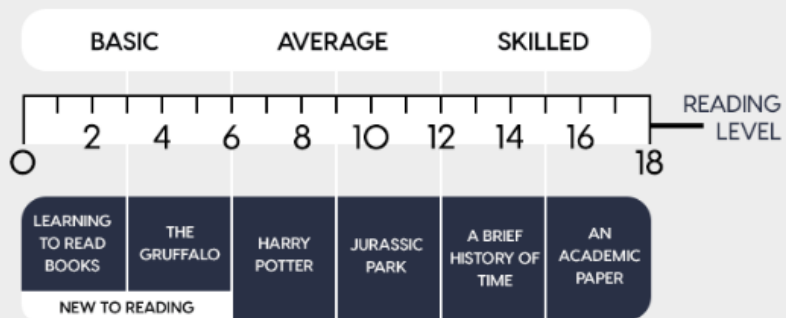
“The technical terminology or characteristic idiom of a special activity or group”

- *Any word or phrase that loses or changes meaning when you use it with people who aren't in your field.*



WORD	SCIENCE MEANING	PUBLIC MEANING
Earth		
Shear	difference in wind speed/direction	cut wool off of
Mantle	planet layer between crust and core	important role passed from person to person
Crust	outermost layer of planet	edge of pizza/pie
Fault	fracture in a rock with movement	responsible for accident/misfortune
Dating	determining age of site/artifact	initial stage of romantic relationship
Grade	gradient/slope	level of proficiency
Plastic	substance that is easily shaped/molded	synthetic material
Matter	physical substance in general	be of importance, have significance
Surf	line of foam on seashore from breaking waves	riding a surfboard
Shelf	a submarine bank	a surface for displaying/storing objects
Submarine	existing/occurring under the sea surface	a ship that stays submerged under water for extended periods
Current	water or air moving in a direction	belonging to the present time
Bank	land alongside a river/lake	a place where people store money
Fetch	distance traveled by wind/waves over water	go far and then bring back something/someone
Swell	sea movement in rolling waves that do not break	to become larger in size (e.g. a body part)
Processes		
Model	computer simulation	promotes fashion/product
Cycling	flow of nutrients or elements	riding a bicycle
Bonding	electrostatic attraction between atoms	making an emotional connection
Driver	influential factor	someone who drives a vehicle
Force	strength/energy of action/movement	make someone do something against their will
Stress	pressure/tension exerted on a material object	mental/emotional strain
Sample	to take a sample for analysis	a small part of something
Productive	creating organic matter through photo/chemosynthesis	busy and efficient
Code	software/computer language	encrypted message

Flesch-Kincaid Grade Level



Aim for grade 8 to ensure your content can be read by 80% of Americans.



ENGAGE THROUGH STORIES

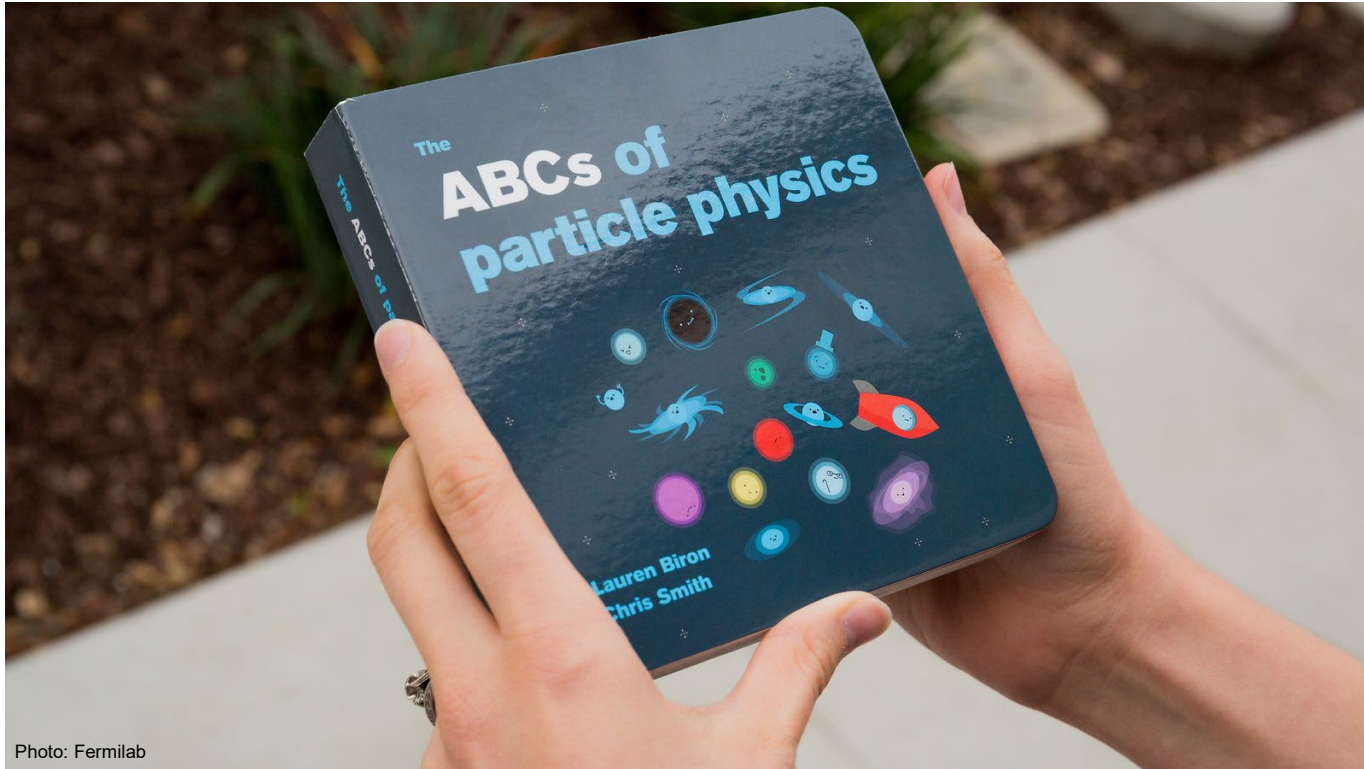
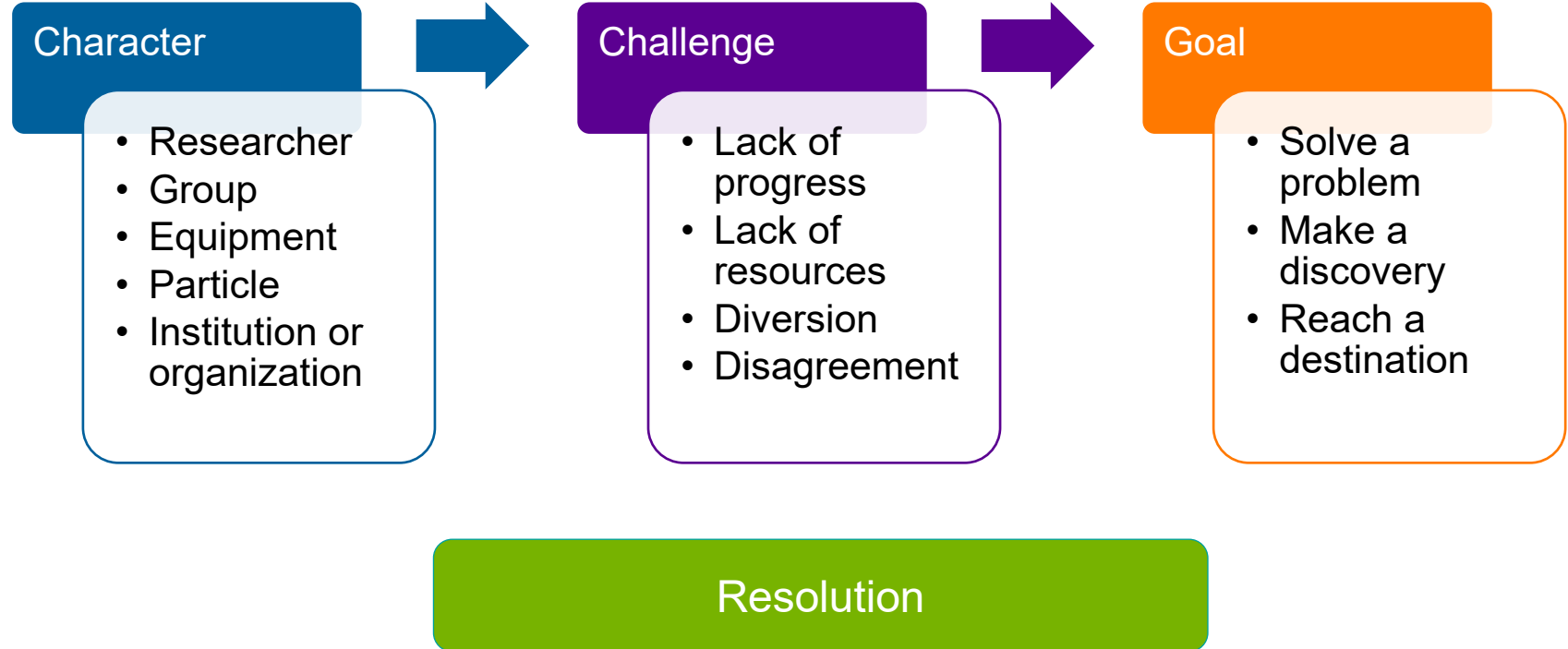


Photo: Fermilab

STORY CONSTRUCTION (TRADITIONAL)



STORY CONSTRUCTION (ABT)

From Randy Olson

▪ **AND**

- Word of agreement and positivity
- Starts your story without tension or conflict
- Other words also work (ex. Also, likewise, similarly, etc.)

▪ **BUT**

- Word of contradiction, negation and denial
- Establishment of tension or conflict
- Driving force in stories
- Other words also work (ex. Despite, yet, however, conversely, etc.)

▪ **THEREFORE**

- Word of consequence
- Whats your point? What are you getting at?
- Other words also work (ex. Thus, hence, consequently, etc.)

STEPS TO STRATEGIC COMMUNICATION

Identify your goal



Know your audience



Connect and engage

RESOURCES

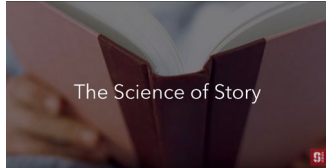
First stop: Your institution's communications office



[Your Brain on Story](#) *Kendall Haven*



[This is Your Brain on Communication](#) *Uri Hasson*

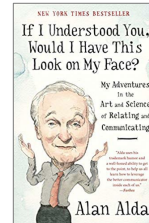


[Science of Storytelling](#) *Ash Agarwal, Jeff Hau, Dylan Moore, Wendy Tsu*



Houston, We Have a Narrative *by Randy Olson*

[YouTube video on the ABT template](#)
(Language warning!)



If I Understood You, Would I Have This Look on My Face *by Alan Alda*



QUESTIONS?



U.S. DEPARTMENT OF
ENERGY

Argonne National Laboratory is a
U.S. Department of Energy Laboratory
managed by UChicago Argonne, LLC.

Argonne 
NATIONAL LABORATORY

Argonne 
NATIONAL LABORATORY



U.S. DEPARTMENT OF
ENERGY