



**UNIVERSITY OF ALBERTA**  
**FUTURE ENERGY SYSTEMS**

# Communication Fundamentals Workshop

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**This presentation focuses on the fundamentals of **effective** communication.**

**Good** communication skills are best developed through practice and one-to-one peer mentorship.

To work on **good** communication skills, participate in:

## **Peers In Research Communication**

**Every Wednesday, 11:30 AM – 1:30 PM**

**Room W4-46, Gunning/Lemieux Chemistry Centre**



## Communication and Research Communication

**Communication:** a professional activity that involves the sending and receiving a message.

**Research communication:** a communication activity primarily concerned with sending and receiving messages directly related to research.

Every communication has objectives and obligations.

**Research communications involve particular obligations.**



# Effective and Good Communication

**Effective:** communication is effective when your audience understands your message.

**Good:** communication is good when your audience enjoys the experience of receiving your message.

**Effective communication is not necessarily good.**

**Good communication is not necessarily effective.**

Strive to be both **effective** and **good**.

In **research communication**, prioritize being **effective**.



# A methodology you use **every time**

1. **Context:** Your audience and the format
2. **Message:** What to say 'about' your research
3. **Data:** Not too little, not too much
4. **Explanation:** Help your audience understand

If at any point you find it difficult to complete a step, you probably need to change the decisions you made in a previous step.



# 1. CONTEXT

**Who is your audience?  
What is the format?**



# Examples of questions to ask about your context

## Audience

Who are you  
communicating with?

Why are they in  
communication with you?

What do they know?

What do they care about?

## Format

Speaking or writing?

How much time or space?

What venue or forum?

What is commonly known  
about your topic?

*Depending on the situation, there may be many more!*



## How to find out more about the context

- **Discuss the activity with the organizer**
- **Speak to people familiar with your audience**
- **Speak to people familiar with the venue**
- **View and analyze other examples**
- **Search online (news, editorials, social media)**
- **Ask your audience!**





## 2. MESSAGE

**What will you say ‘about’ your research?**



## What is a message?

- It is **not** condensation of your research
- It is **not** a slice of your research without context
- It is something you choose to say ‘about’ your research
- It is a complete thought that is relevant to your audience and format



## **Common types of messages**

- **What your research findings or method will contribute to your field**
- **How your research findings, method or field can affect people's daily lives**
- **How your research findings, method or field is different or unique**



## Questions to help choose a message

- What are you trying to solve?
- What will be the result of solving it?
- What is unique about what you are doing?
- How will your work impact people (including you)?
- **How much can you cover in this context?**



# 3. DATA

**How much data do you need to include?**



# What is a **data** and what is **explanation**?

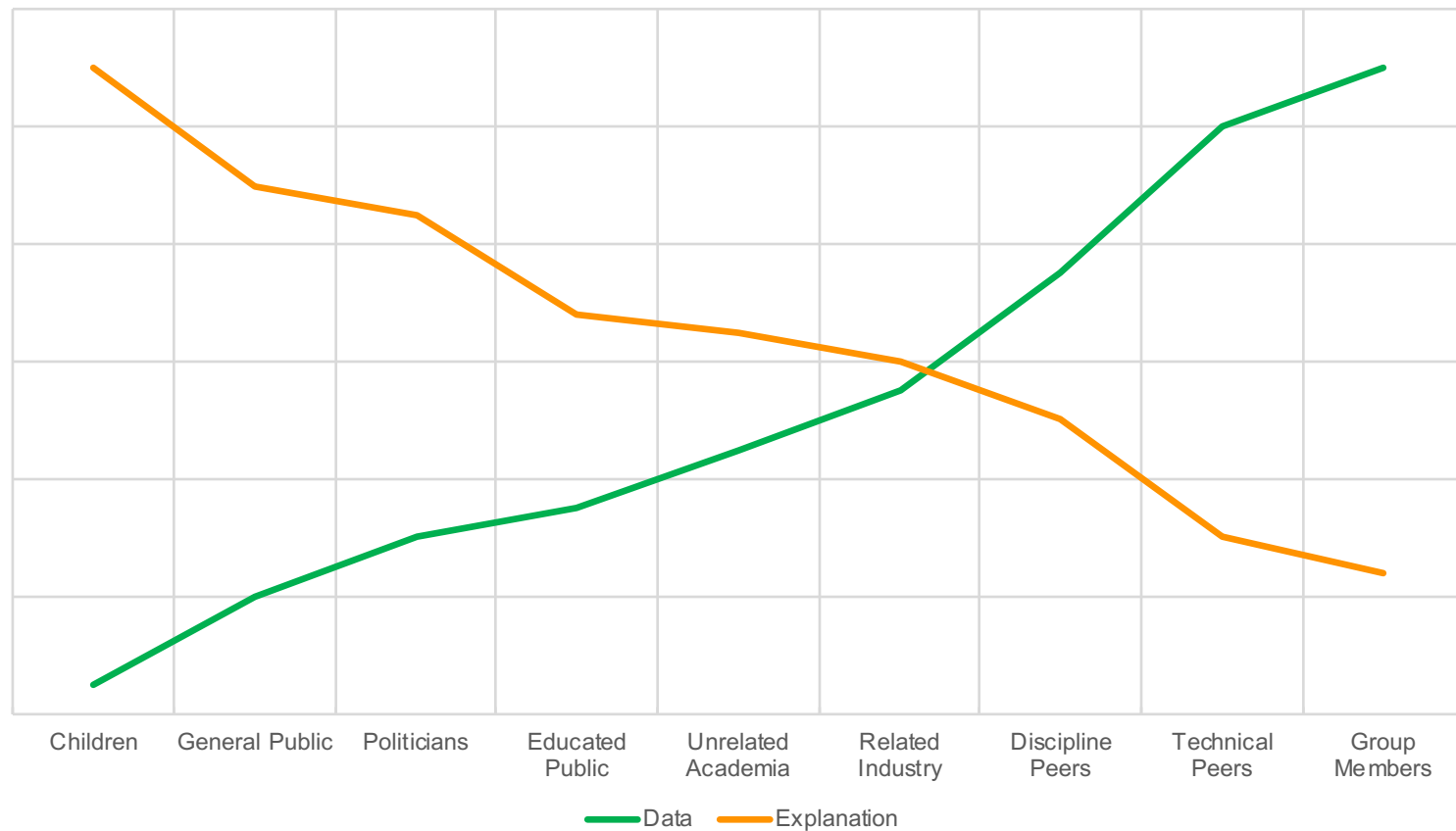
**Data:** Definitions vary depending on discipline. In this context, it is any information from or about your research used to support your message.

**Explanation:** Your comments that put the data into context and clarify its significance.

**Only include data that you have time to properly explain!**



## Determine your data-explanation ratio





# Choosing and grouping data

- **Decide which data to include – don't just put in everything!**
- **Choose data that is related to your message**
- **Simplify to the smallest number of data points possible**
- **Don't use multiple data to make the same point**





# 4. EXPLANATION

**How can you help your  
audience understand?**

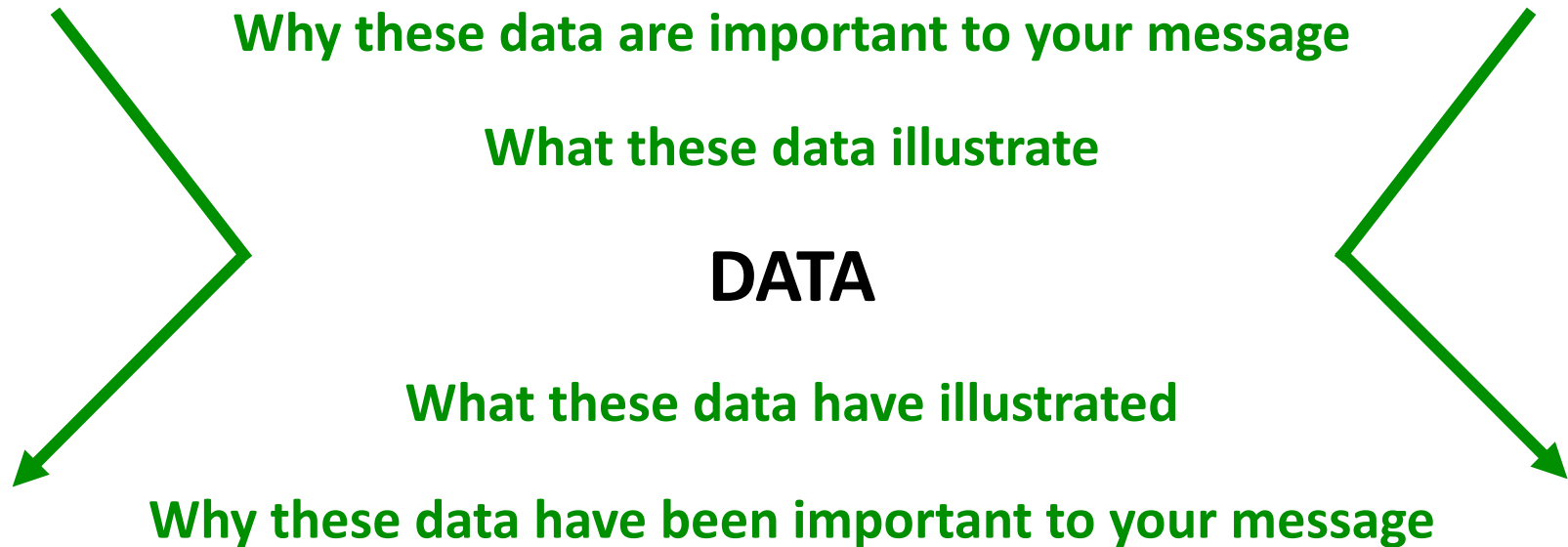


## **Principles of a good explanation**

- **Explains all technical terms**
- **Explains all elements of your data (chart fields, axis, etc.) and their relation to each other**
- **Discusses the relevance of the data to your message**
- **Emphasizes impact on people (including you) and their actions**
- **Doesn't overpromise or underpromise**



## Hourglass method for explaining data





## Questions to help explain data selection

- Why did you choose these data instead of other data?
- How much other data is there?
- Will you be seeking more data to validate these data?
- What is your level of confidence in these data?

**Never feel shy about reaching a conclusion based on your expertise, but never feel pressured to offer an ABSOLUTE conclusion.**



## **Consider Metaphors or Analogies**

- **Metaphors and analogies can help clarify and contextualize data**
- **Try to use visual metaphors that are universal and easily pictured**
- **Choose metaphors that illustrate comparable relationships and interactions with people**
- **Accept that metaphors and analogies are imprecise!**



**Need advice about a specific  
research communication activity?**

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