MODELS FOR SCIENCE COMMUNICATION

CRASC – 05/03/26

SHARE YOUR DEFINITION

What is Science Communication?

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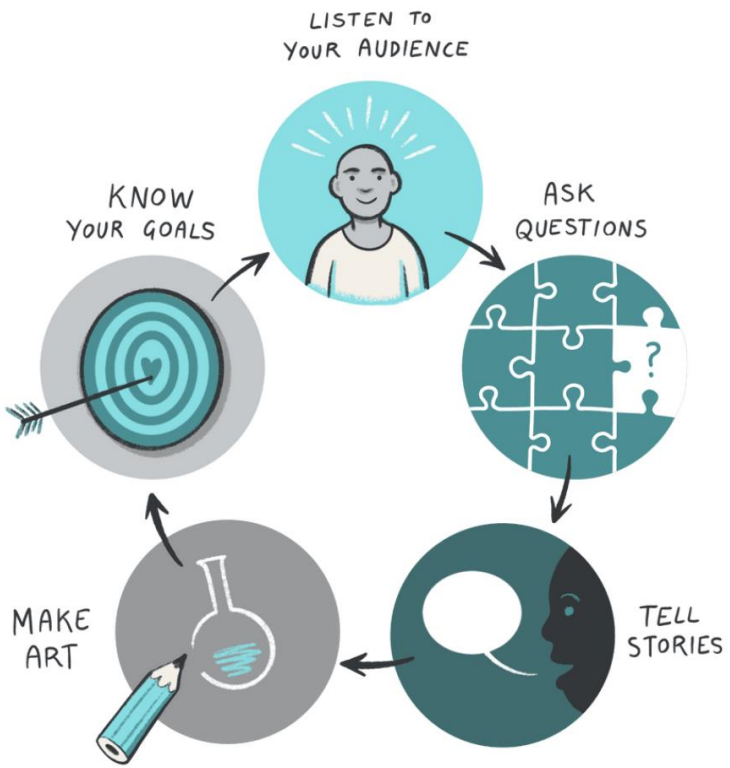
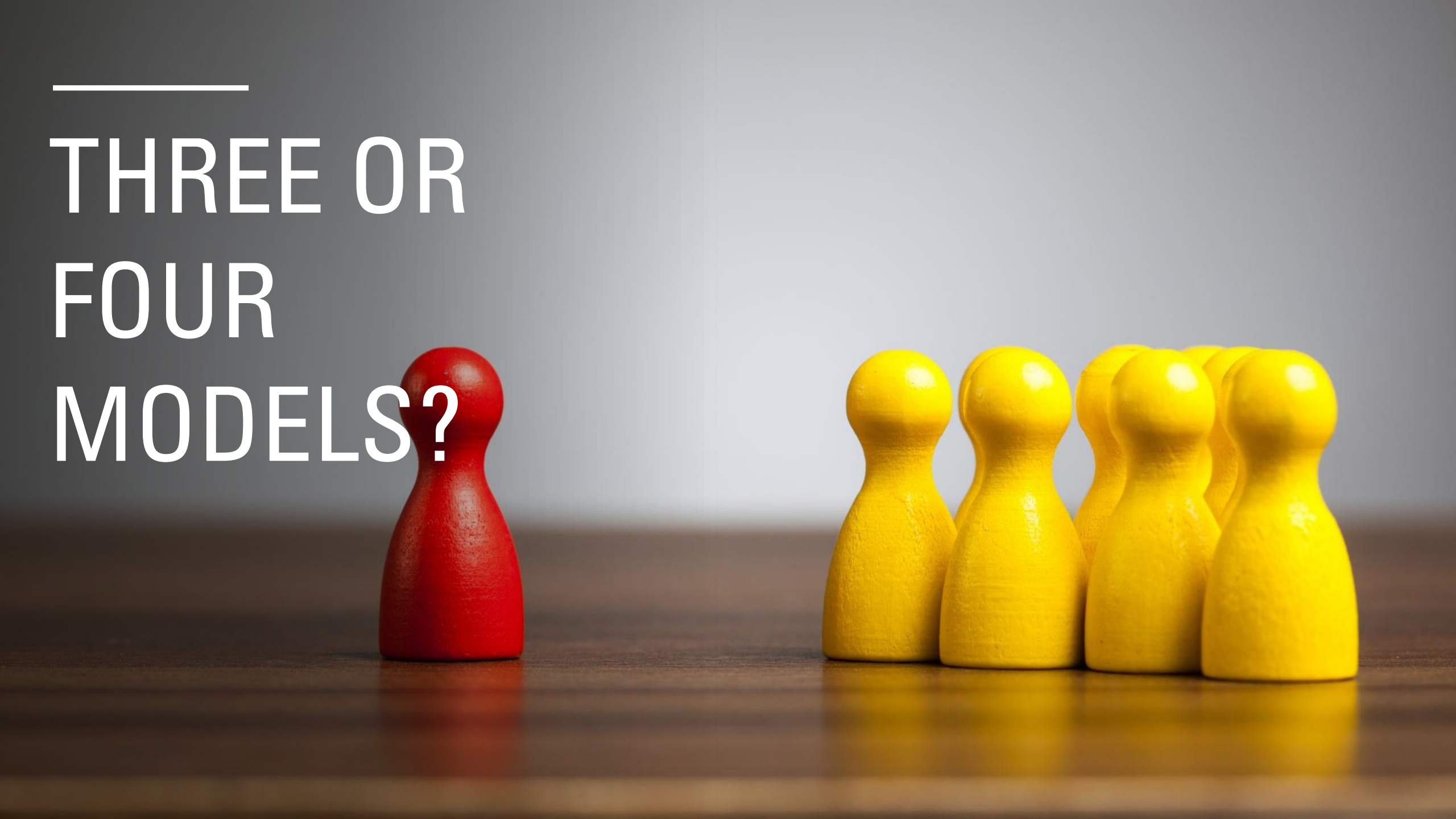


What is science communication? What is it all about? How can I practice it?

This course will help you discover the answers to these questions. Continue to learn!

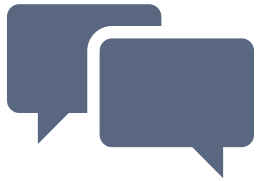
https://lifeomic.app.us.lifeology.io/viewer/lifeology/default/what-is-science-communication#830ba069acf1

THREE OR FOUR MODELS?



THREE MODELS

KNOWLEDGE DEFICIT



DIALOGUE

PARTICIPATION

PUBLIC ENGAGMENT

KNOWLEDGE DEFICIT

Category	Details
Main Focus	Public ignorance and technical education
Key Issues	Communicating science, informing debate, getting the facts straight
Communication Style	One-way, top-down
Model of Scientific Governance	Science-led, ‘science’ and ‘politics’ kept apart
Sociotechnical Challenge	Maintaining rationality, encouraging scientific progress, and expert independence
Overall Perspective	Focusing on science
Emphasis	Content
Aims	Transferring knowledge
Ideological Contexts	Scientism; Technocracy; Rhetoric of the knowledge economy

- TV and radio programs
- Public lectures
- Science articles
- Podcast

DIALOGUE

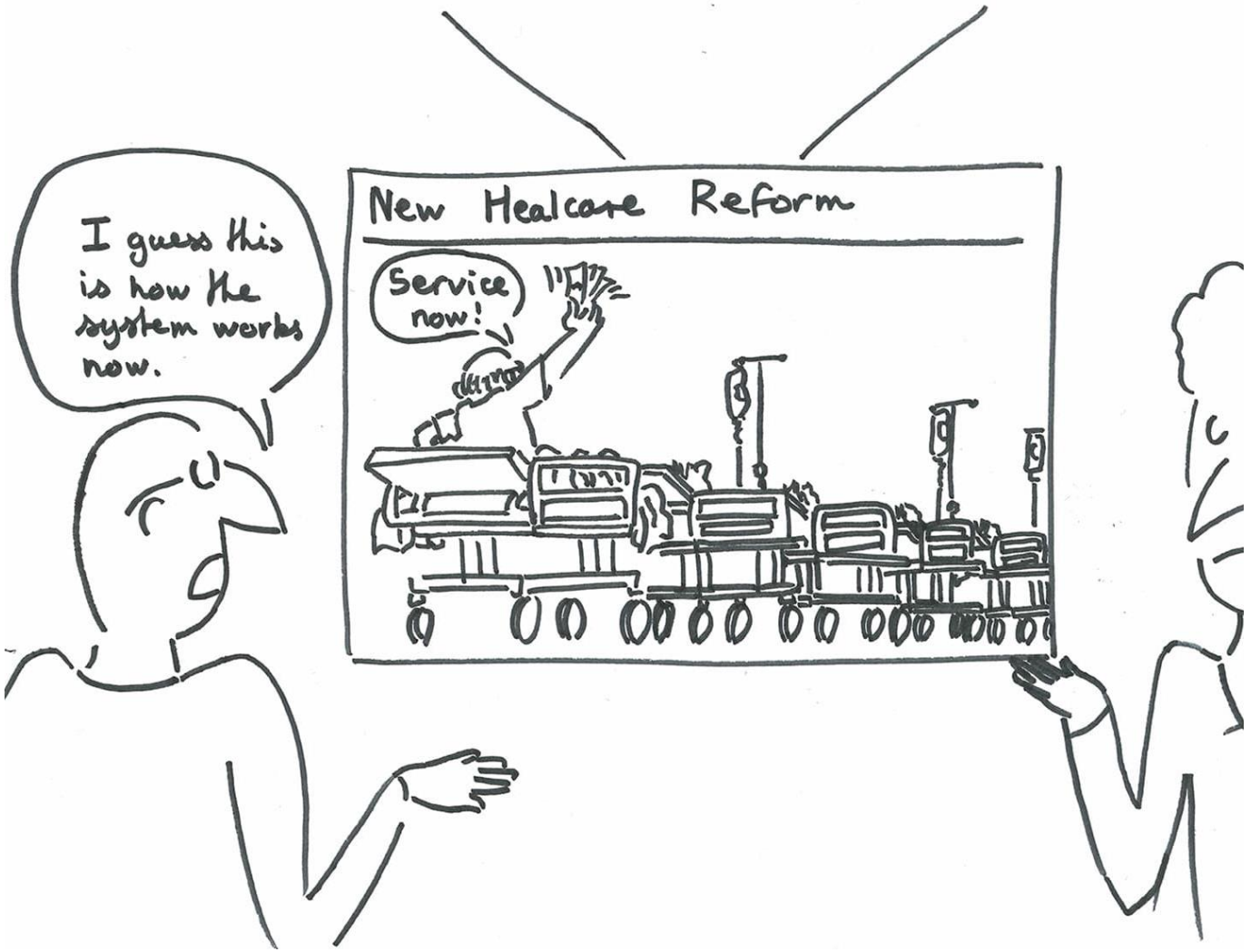
Category	Details
Main Focus	Dialogue, engagement, transparency, building trust
Key Issues	Re-establishing public confidence, building consensus, encouraging debate, addressing uncertainty
Communication Style	Two-way, bottom-up
Model of Scientific Governance	Transparent, responsive to public opinion, accountable
Sociotechnical Challenge	Establishing broad societal consensus
Overall Perspective	Focusing on communication and engagement
Emphasis	Context
Aims	Discussing implications of research
Ideological Contexts	Social responsibility; Culture

- Discussion games
- Participative exhibits
- Science café
- Interactive labs

PARTICIPATION

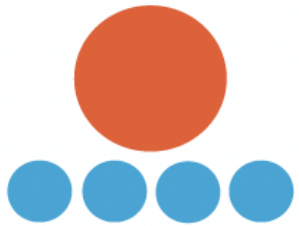
Category	Details
Main Focus	Direction, quality, and need for sociotechnical change
Key Issues	Setting science and technology in wider cultural context, enhancing reflexivity and critical analysis
Communication Style	Multiple stakeholders, multiple frameworks
Model of Scientific Governance	Open to contested problem definitions, beyond government alone, addressing societal concerns and priorities
Sociotechnical Challenge	Viewing heterogeneity, conditionality, and disagreement as a societal resource
Overall Perspective	Focusing on scientific/political cultures
Emphasis	Content and Context
Aims	Setting the aims, shaping the agenda of research
Ideological Contexts	Civic science; Democracy

- **Citizen science projects**
- **Consensus conferences**
- **Living labs**



THE AUDIENCE INVOLVEMENT SPECTRUM

https://www.chrisunitt.co.uk/2011/11/links-for-2-november-2011/audience-involvement-spectrum/



SPECTATING

Spectating is fundamentally an act of receiving a finished artistic product. It is therefore outside the realm of participatory arts practice.

ENHANCED ENGAGEMENT

Educational or "enrichment" programs may activate the creative mind, but for the most part do not involve creative expression on the part of the audience member.

CROWD SOURCING

Audience becomes activated in choosing or contributing towards an artistic product.

- *Youth mosaics*
- *Photography contests*
- *An opera libretto comprised of Tweets*
- *Virtual choruses*

CO-CREATION

Audience members contribute something to an artistic experience curated by a professional artist.

- *Participatory theater*
- *Pro/Am concerts*
- *Storytelling events*
- *Participatory public art*

AUDIENCE-AS-ARTIST

Audience members substantially take control of the artistic experience; focus shifts from the product to the process of creation.

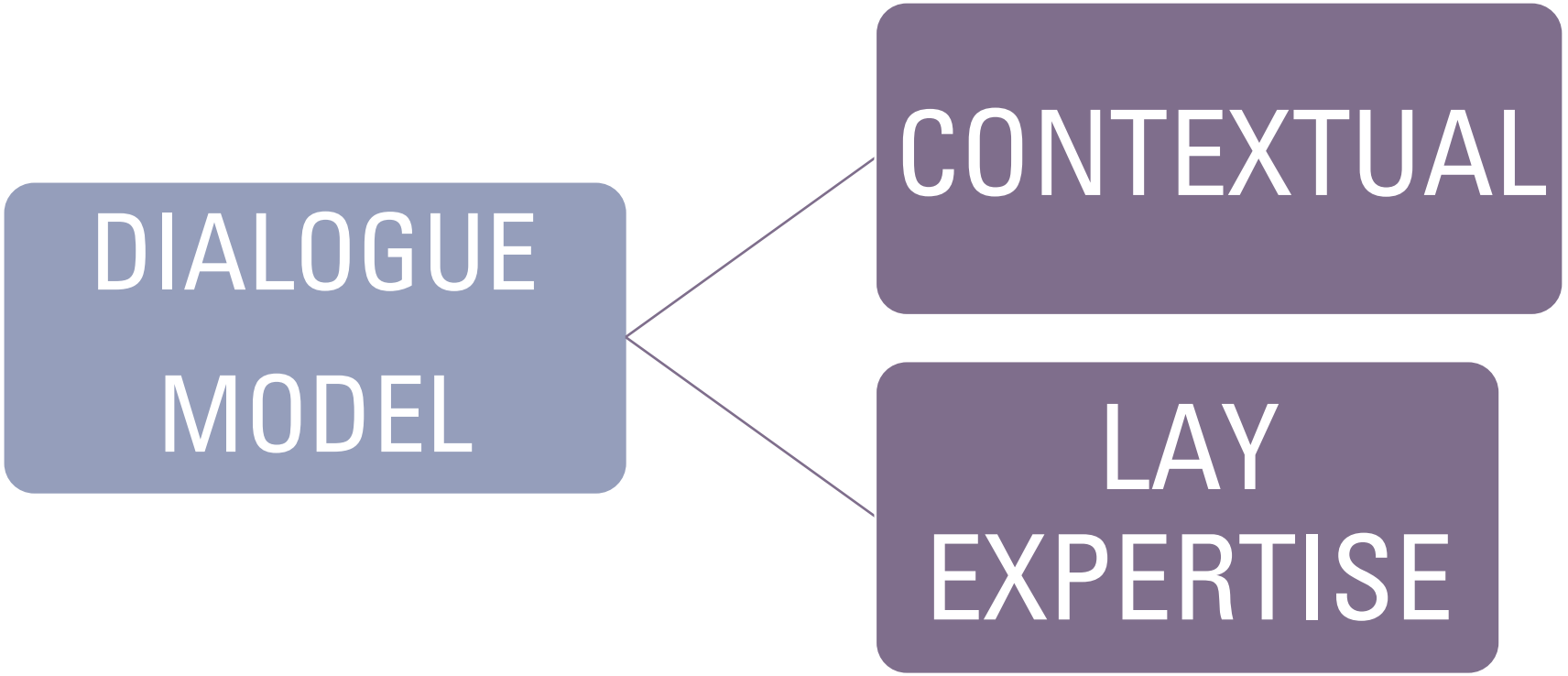
- *Public dances*
- *Community drawing contests*

PARTICIPANT'S LEVEL OF CREATIVE CONTROL

CURATORIAL

INTERPRETIVE

INVENTIVE

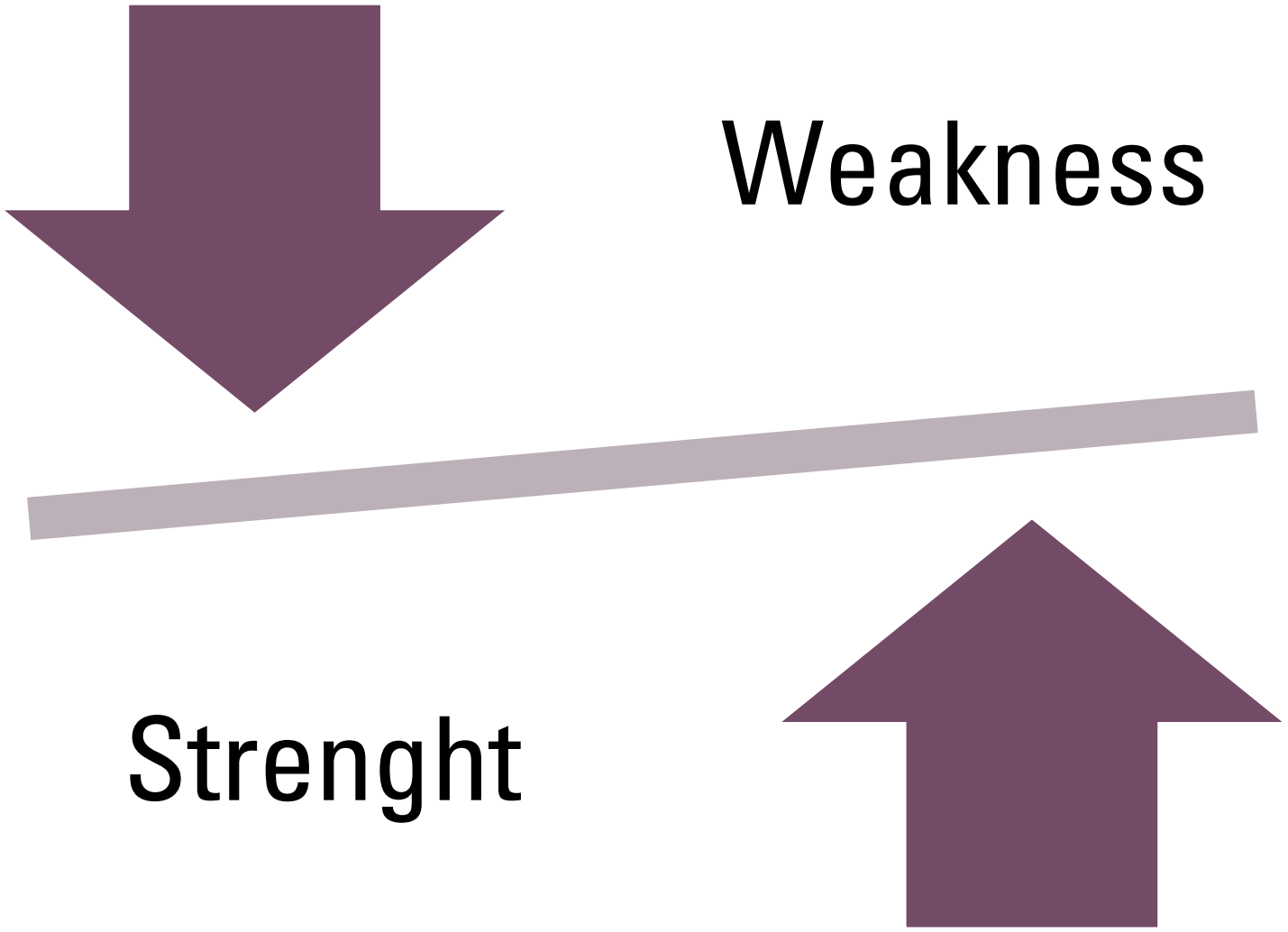

DIALOGUE MODEL
CONTEXTUAL
LAY EXPERTISE

CONTEXTUAL MODEL

- Communication of science is considered to be based on the needs, attitudes and existing knowledge and situations of the different audiences.
- Individuals respond to messages based on their unique circumstances.
- There is one-way transmission of information from scientists to the public.
- Audiences have ability to quickly gain knowledge about topics that are relevant to them.

LAY EXPERTISE MODEL

- Acknowledges the limitations of scientific information.
- Acknowledges that audiences might have some pre-existing knowledge.
- Highlights interactive nature of scientific process.


Weakness
Strenght

KNOWLEDGE DEFICIT MODEL

- Perception and utilization of scientific information is more complex than portrayed in the deficit model.
- Overlooks importance of background knowledge and sociocultural circumstances in science communication.
- The public is not homogeneous. Reception of information will vary from person to person.

WEAK

CONTEXTUAL MODEL

- According to this model, communication is one way: no interaction between the source and recipient of knowledge.
- Absence of adequate opportun-ity for feedback.

LAY EXPERTISE MODEL

- Undermines the expertise of scientists.

WEAK

PUBLIC ENGAGEMENT MODEL

- Diminishes the scientist's power.
- Citizens can participate in a more emotional than rational way, which can undermine the objective of communication.
- More complex, and therefore difficult to explain to donors and policymakers.

WEAK

STRONG

SLIT IN GROUP AND THINK THE STRENGHTNESS FOR ONE MODEL

Activity

Think of a science topic or idea that you'd like to communicate with a public audience. Think about your goals for this - is it to enterain? Educate? Inspire?

Based on your goal, **develop 3-5 conversation starter prompts or questions** that could help you engage your audience in this topic or idea!

DO IT! SPLIT IN GROUPS AND DISCUSS THEN REPORT TO THE OTHERS