Storytelling for Research Communications

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Workshop Outline

- Brain Chemistry
- Social Connectivity

Why Storytelling

What is a research story
- Format
- Formula

Examples

Story Types and Structures

Pulling it all together
- Visuals
- Your purpose
Why does storytelling work so well?

"Storytelling is our default way of learning and making sense of the world"

- Holly Walter Kerby (Storyform Science)
Humans are:

- inherently responsive to storytelling
- wired for emotional decision making
- Have pattern-seeking brains

Daniel Khaneman (2011)
Neural Coupling

(Ariel Group, 2020)
Brain Chemistry

Certain parts of stories induce neurotransmitters and peptide hormones

- **Dopamine**
  - Activated by intrigue
  - Plays a major role in memory and motivation

- **Oxytocin**
  - Plays a role in social bonding
  - Released when hearing personal stories
  - Related to empathy and trust

- **Endorphins**
  - Laughter
  - Relaxation
  - Perceptiveness and sense of well-being
We have cognitive bias towards stories:

**Identifiable Victim Effect**
- “The everyday hero”
- People are compelled by real and personal stories

**Self-Relevance Effect**
- We remember information that relates to us

**Confirmation Bias**
- We direct our attention to information that confirms our pre-existing knowledge or ideas

**The Decline Bias**
- We are fascinated by stories of the past
- We seek out nostalgia
You don’t always need to present like an academic!

10 mins +
- Introduction
- Methods and results
- Conclusion
- Text heavy slides
- Jargon and technical language
- Data
- Reading off the slides
- Questions

Only effective in academic settings with specialists NOT for most other audiences
What is a story?

- Aristotle’s Poetics (1961)

Conflict: the issue your research is addressing

**CLIMAX**

"A character-based narration of a struggle to overcome obstacles and reach an important goal" - Garr Reynolds

Introduction of elements, people, ideas

**BEGINNING**

Demonstrate a clear change from the beginning

**RESOLUTION**
What is persuasive storytelling?

- Nancy Duarte (2010)

Diagram:
- **Beginning**
  - Zone of proximal development
  - Turning point 1: Identify the gap
- **Middle**
  - Potential knowledge/understanding
  - Current knowledge/understanding
  - Turning point 2: Fill the gap
- **End**
  - Reward: new understanding
  - Encourage further inquiry
- **Cross the threshold**
The process to storytelling for research communications

1. Define your audience
2. Your research communications goals
3. Identify your story elements
4. Choose your story structure
5. Put it all together
Your Audience
Your target audience

Comes 1st - **without an audience your information goes nowhere!**

Potential target audiences:

- Researchers
- Policy-makers
- Business leaders
- Community groups
- Educators
- International Audiences
- Practitioners
- Decision-makers
- General public
- Media
What do they need to know?

So What?

Your Message

Cohort, faculty member, supervisor

Government

Media

General audience

Identify your elements

The Message Box

Audience: Who is impacted by this? Who can change this? Who cares about this?

What specific dimension of the issue are you addressing?

Problems?
Issue

Who does this help and how? What improves in the short-term? Long-term?

Benefits?

Broadly, what are you working on? What keywords would you search to find your topic online?

So What?

What does your audience value? How does this impact them or something they care about?

Solutions?

What can be done to address the problem? Or what are you doing to address it?

CÔMPASS
What does your audience need?

Move away from the deficit model

- Your audience doesn't need to catch up to you and your knowledge, you need to meet them where they are.

Make the information relevant to their context

- Give examples: images, or short explanations
- Analogy, metaphor, simile

Make your information accessible

- Inclusive, and contextually specific
Your Communication Goals
Define communication goals?

Inform

You want something to change

Contribute to collective knowledge and move us all forward

Influence

Share reliable information to help people make the best decisions

Empower
Define your conflict

• Nancy Duarte (2010)
4 Story Formats
What is

• Nancy Duarte (2010)
What are the types of stories you could tell?

- Personal
- Historical
- Mystery
- Reality Scenario
• You are the main character

• Why are you doing the research?

• What inspires you?

• What you research experiences are?
Noah Schwartz
Carleton University (SSHRC Top 25)

https://youtu.be/hSm0PEhWDAk
There is a common misunderstanding about how the NRA communicates. We could have a better understanding of political communication. The NRA uses storytelling to communicate narratives about guns. For some people, gun ownership as a concept elicits fear. Americans and Canadians are said to be in this cultural war.

Having a better understanding of each other can help us chart a dialogue to no man's land.
Historical Story

• What is the history of the problem?

• What is the history behind the tools that I am using in my research?

• What about other scientists, people, subjects that influenced past research on this topic?
Alexandra Bischoff
Concordia University, Top 25 finalists

https://youtu.be/GLCs60U456o
Reality Scenario

• Turn a statistic into a story
• Ask the audience what if?
• Set the scene
Reality Scenario: Katherine Silang (3 MT finalist)

https://youtu.be/SgoXbbQxHhk
Pregnancy can exacerbate sleep disruption which can be linked to serious health concerns. We can treat insomnia in pregnancy with CBT-I. Improving sleep could be the underlying mechanism of action that we can target for better care.

WHAT COULD BE

WHAT IS

We don’t have any information about how a therapy for insomnia can help with postpartum depression.

WHAT COULD BE

NEW BLISS (NEW NORM)

WHAT IS

Sleep is not a big enough focus in prenatal care.

We can pave the way for women to have early access to interventions.
What structure would you choose? Why?
Your Story Structure
The beginning of your presentation is when you are guaranteed to have 100% of the audience's attention.
Start with a Story (University Affairs)

The Hero’s Journey
- The Return
- The Ordinary World
- Revelation
- A Transformative Journey

The Funnel
- Story
- Implications
- Research

The Dumbbell
- Story
- RESEARCH PROCESS
- Story

UNIVERSITY OF CALGARY
Build contrast

• Nancy Duarte (2010)
Putting it all together
Don’t start with powerpoint!

Leave your visuals until you have drafted your talk

Mindmapping
Sticky Notes

Arrange and then re-arrange
Make it consistent

COLORS
IMAGERY
FONT
GRAPHICS
BRANDING

Logos
Use our logos correctly for a professional, consistent brand impression. Learn about logos

Colours
Our colours set us apart from other universities. How to use our colours

Fonts
Our fonts include Gotham, Museo Sans, Calibri, Georgia, and Proxima Nova. Find out about our fonts

Imagery
Photography, illustration and graphics enhance our storytelling. Learn to use images

https://www.ucalgary.ca/brand/brand-standards
Less is more! (especially with text)

1. Use smart art to show processes
2. Use pictures to convey meaning
3. Use directional tools or masking to point to something
4. Reproduce and simplify your charts and graphs
SmartArt to show processes
• Aaron Weyenberg ("Preparing for worst case scenarios")
(1) Set the image transparency to something less than 100.
(2) Duplicate that image so there is one directly over the top of the other.
(3) Set the dup’d image transparency back to 100
How to mask

(1) Set the image transparency to something less than 100.
(2) Duplicate that image so there is one directly over the top of the other.
(3) Set the dup’d image transparency back to 100
(4) Crop to shape your dup’d image
Simplify your data

Traffic to new site

- March 3: 200k PV
- March 4: 1.7MM PV

How many users do I need?

(Usability problem frequency: 30%)

5 users gives us an 85% chance of catching usability issues
Resources
Organizing your content

- The message box Compassscicomm.org

- 7 Things to do When you Have to Give a Short Speech, by Bill Murphy, Jr., Inc.

- Explaining Your Work to Friends and Family, PhD Talk

- What to Do When They Say, “Tell Us About Your Research,” by Mary Morris Heiberger and Julia Miller Vick, The Chronicle of Higher Education

- Do You Have Mysterious Dragons in Your Research?, by Joseph Barber, Inside Higher Ed

- How to Give More Persuasive Presentations, Nancy Duarte
Visuals

- Powerpoint (16:9 widescreen format)
  - Insert > tools to create shapes icons, 3D models

- Unsplash (imagery) https://unsplash.com/

- Colourbox (imagery) https://www.ucalgary.ca/brand/brand-standards/imagery

- GNU Image Manipulation Program (imagery) https://www.gimp.org/

- Canva (design) https://www.canva.com/

- BioRender (science design) https://biorender.com/

- Tableau (data viz) https://www.tableau.com/

- Inkscape.org (design) https://inkscape.org/

  - Student Plans: https://www.adobe.com/creativecloud/buy/students.html
You as a presenter

- **Tips and Techniques for More Confident and Compelling Presentations**, by Matt Abrahams
- **Conquering Stage Fright**, by the Anxiety and Depression Association of America
- **9 Speaking Tips for Non-Native Speakers**, by Ryan Avery
- **Four Ways to Make Your Research Presentation Stand Out**, GradLife blog
References


