

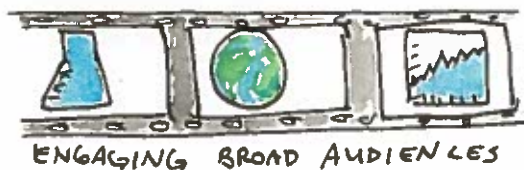
Introduction to The Symposium
Sara Elshafie + Stuart Sumida

Science Through Narrative

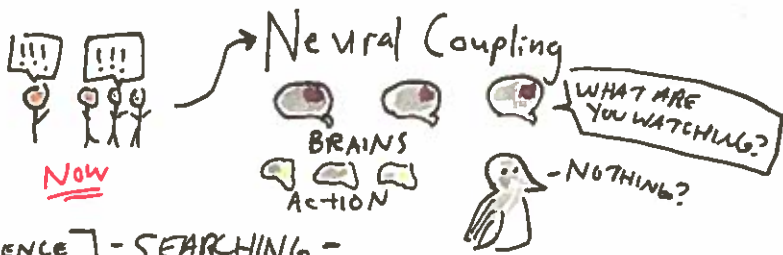
SICR2018 5 JAN 2018

A MINDSET!

LEARN FROM ALL KINDS OF PEOPLE

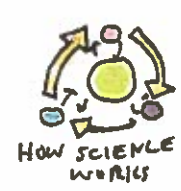


Understanding + Communicating



THEN

"You must UNLEARN WHAT YOU HAVE LEARNED"



SCIENCE + STORY WORK SIMILARLY!

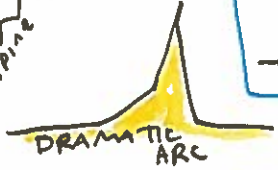
SEARCHING for a solution to a problem



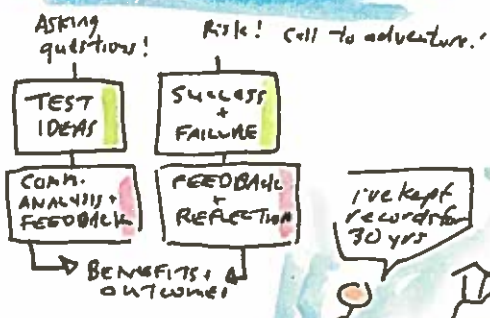
THE HERO'S JOURNEY



IT'S A FORM, NOT A FORMULA



AND, BUT, THEREFORE!!!
R. OWEN



A good story cannot be...

EX. FINDING NEMO

WHO IS THE MAIN CHARACTER?
(not nemo)

WHO IS YOUR AUDIENCE?

What is your goal??
SURVIVAL

What if you didn't know your purpose?



CAN WE TEACH SCIENCE THROUGH NARRATIVE?
(YES.)

- SCIENCE IS A NARRATIVE
 - AUDIENCE
 - MAIN CHR, OBJ
 - OBSTACLE
 - INCITING INCIDENT
 - STAGES
 - ACTION
 - OUTCOME
- TAKE AWAY...*

What if you didn't know your purpose?
We only have summer data...
Scientists THE FRAME TARGETS STUDENTS FOCUS ON IDENTITY.

Fossils, Lost Worlds, + THE Hero's Journey

KR JOHNSON

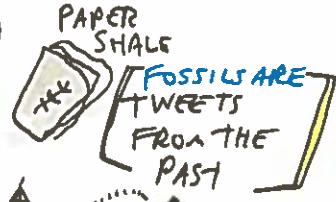
Fossils ARE OUR PLANETS MEMORY!

Look FOR THE ROUND ONES..



MUSEUMS ARE WHERE SCIENTISTS DO RESEARCH!

MENTORSHIP MATTERS



MUSEUMS ARE OUR Culture's Memory!



TIME TRAVEL W/ A SHOVEL.

24000 Leaves built



HOW DO WE INTEREST PEOPLE IN SCIENCE???

Well.. How did SCIENTISTS get interested???

1. EARLY OUTDOORS
2. Personal Discovery
3. Media
4. Museum
5. Early research
6. Pro-sci parents
7. great mentor



FACTORS THAT CREATE SCIENTISTS



ROCKS DO NOT LIE!

geologists know where they are in time at All times!

-CRUSIN' THE FOSSIL COASTLINE-

THINK OF LUGGERS!! THE



THE WESTERN FLYER



FIND AN ARTIST!



Barack on 300my old fossil coral.

- get an artist buddy
- choose your audience
- use their language
- Make 'em laugh
- exhibit your data
- use surprise & analogy
- tell your story



FOSSIL PALMFRAN FOUND IN ALASKA

Never Fake Discovery on CAMERA

@wrong-whole

COMMUNICATING THROUGH PLAYFUL SYSTEMS

- A. KIPNIS -

WHAT IS PLAY?

"Play is a way of operating a constrained system in a gratifying way" - Bogard

LANDLORDS GAME TAX

MONOPOLY (!) TODAY.

games to CLARIFY OR EDUCATE

SIMS URBAN PLANNING



[OREGON TRAIL... WHERE YOUR ENTIRE FAMILY DIES OF TERRIBLE THINGS!!]

SINCE YOU NAME YOUR CHARACTER, YOU ARE MORE INVESTED!!

[IN SCIENCE, HOW DO WE ENTICE TO EXPLORE??]

STEP 1 HOOK



STEP 2. PERSONAL

Prisoner's Dilemma

understanding complex ideas through games!

STEP 3 COMPLEXITY MINECRAFT

Someone built a working computer in Minecraft!



unfolding modeling scientist

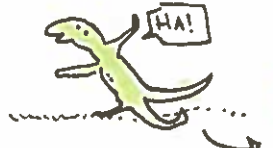
THE EVOLUTION OF TRUST



@cashmare

HOW TO HAVE PLAY IN YOUR RESEARCH? IN YOUR SCIENCE?

Range of Motion Test



But... Look at the arms... Not on the... Just the legs

CAN YOU FIT IT INTO THE SHOT?



Visual anchors



HOW CAN WE MAKE YOU BELIEVE IT?



DIES THIS LOOK RIGHT?

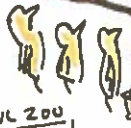
Using Narrative Film STRUCTURE + TECHNIQUE

To engage an Audience RG MCINTOSH

How to make it look heavier?

I could just shake the camera?

for more legs shake



THAT'S FAMILIAR

TAKE INSPIRATION FROM MOTHER NATURE

@wavy-whale

IT'S DARK IN HERE

Alignment!
SCIENCE IS AWESOME

Inviting Inquiry + exploration through DATA VISUALIZATION
- EW RODENBECK @stamen



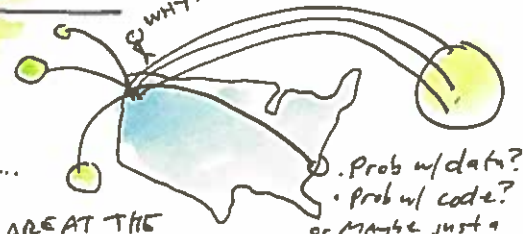
WHY ARE THEY NOT HERE?

BILLION SENSORS & EARTHQUAKE

Big Glass Microphone

What you lose in accuracy, you gain in POWER

DATA VIS... invites more Q's than it Answers...



Prob w/ data?
Prob w/ code?
or maybe just a racist gov't policy.

Visualization is Not Context-Free!

Visualize HUMAN EMOTION



EMOTIONS ARE AT THE CORE OF WHAT MAKES US HUMAN.
- ANGER -

EACH EMOTION HAS ACTIONS ASSOCIATED W/ IT.

PAUL ERWIN & THE DALAI LAMA



SADNESS
ANGER
DISGUST
ENRAGED



SCIENCE IS AWESOME. STORIES ALL AROUND, TELL THEM. LOSE IN ACCURACY, GAIN IN POWER. DV INVITES QUESTIONS. NOT CONTEXT-FREE

TRIGGER
QUESTIONS. NOT CONTEXT-FREE
@wrong-wale

TEACHING

RESEARCH

Visual Narrative + Jargon Minimization

#SICB2018
emmy-white

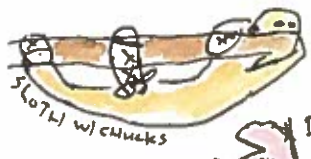
In successful anatomy teaching
- E. Rega -



BALANCE
SMART, CREATIVE PEOPLE

My superpower is
Sucking the fun
out of EVERYTHING!

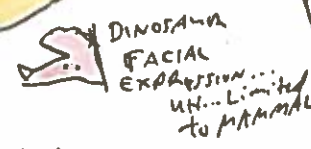
Stompative
tennis shoes



1. VISUAL ANATOMY

9 STEPS
HUMAN-
GORILLA

THIS IS BECAUSE THEY
PARASITIZE
THEIR MOTHER.



DINOSAURS DO NOT HAVE FACIAL MUSCLES, BUT IF THEY DID...

you gotta know the Black + White in order to do gray.

[Meta-narrative in 5 images]



A WINK IS NOT A BLINK!
Full contraction!
momentary

REAL THING? IMAGE?

- EYE MOVEMENT -
THE EYES TELL THE STORY

We easily recognize these emotions, how?

HOW DO WE DEAL W/ RACE

Whenever you put something on a scale, value enters.

THE Uncanny Valley is Not the Inevitable!

[Adults + Kids] WHO IS CUTE? HOW DOES AGE?

Eye size FACE SIZE

- Humor Walks a Fine Line -
Character or Characterize?

BIOTA

A MIXED-MEDIA, SYMBIOSIS
IN ACTION APPROACH TO SCICOM
UI-Hasan Perez

IS THIS A PLACE YOU'D LIKE TO LIVE?

45 OUR HOMETOWN

SEPARATION



@thebiotaproject

SURE

IT'S Chula Vista
"an undesirable place"

THE GREATSALT LAKE
"an undesirable place"

WHY?

SYMBIOTIC COMMUNITIES!

IS THAT A REAL PLACE?

HOW TO BECOME
A DESIRABLE PLACE.

KICKSTARTER

UC MERCED

WHAT ABOUT THE
Central Valley?

WHAT DOES MERCED
THINK OF MERCED??

VERNAL POOLS

UHF...

CITIZEN
SCIENCE
+
SCIENTISTS

WHAT'S NEXT?

EXPAND!!!

EMPOWERING UNDERSERVED COMMUNITIES · CONNECTING PEOPLE: RESEARCHERS · INNOVATION THROUGH INCLUSION · ART + MEDIA AS A TOOL
THE BIOTA PROJECT.ORG
ASICB2018 wrong.whole

@EmilieLorditch #SICB2018

"TOOLS" for SCICOM from the Intersection of JOURNALISM + SCREENWRITING

E. LORDITCH

I love...
SCIENCE
WRITING
MEDIA
ENTERTAINMENT

A scientist, A Journalist
A screenwriter set down
to write a story

"I WANT TO TELL YOU
EVERYTHING!!"
(data, detail, inspire)

- How you see World
- transport you
- Video, images
- EMOTIONAL

• About a research
• Accurate
(Journalist) • picture, person

Learning how to not let
SCIENCE get in the way
of a good story.

DETAIL
START

WHY DO YOU STUDY? WHAT YOU STUDY?

@wrong-whale

Blue Dye in
moms
cervical
injuries



SHARE YOUR
PASSION!
SHARE YOUR
STRUGGLE
SHARE YOUR
FACTS + FIGURES

lessons learned

- Feedback
- Precision vs. Accuracy
- Science Fact vs science fiction
- Science can add drama
- EMOTION IS IMPORTANT
- Demos, Videos, images, visuals

Google: "SCIENTIST" 999

HMM... OLD WHITE GUYS..

IMPROVING DEPICTIONS of Science in Mainstream Media

#SICB2018 @SCIENTIST

R. LOVERD 844-NEED-SCI

THEY CONNECT YOU!

We speak truth to power

BUT MORE BROADLY?..

Remember When Scientists were the hero?

- Natl Acad. of Science
- BRIDGE BUILDERS -
- SALONS
- TOURS
- SCIENCE SPEAKEASY
- RETREATS

NOW IT'S THEIR FAULT.

Community building!!

WHAT IS THE POINT?

CONSISTENT UNIVERSE

STORY TELLS WHAT THEY KNOW

ACCIDENTAL CURRICULUM

People will change BEHAVIOR!

Get SCIENCE INTO THEIR LIVINGROOM

THE DANCING SCIENTIST - IRON MAN -

CAN YOU BUILD A PARTICLE ACCELERATOR?

SURE

Europa: Accurate up to the space monster.

THE WOMAN OF SCIENCE

MAYBE A WORMHOLE IS FORMING
FEMALE THEORETICAL PHYSICISTS ARE STILL UNDERREPRESENTED.

THIS HELPS GET SCIENCE INTO MEDIA!

In past 2 yrs NAS inc. representn of scientists connected.

You have 7 days to submit video OF CHIT of female scientist

over 1,000 entries.

@wray.white