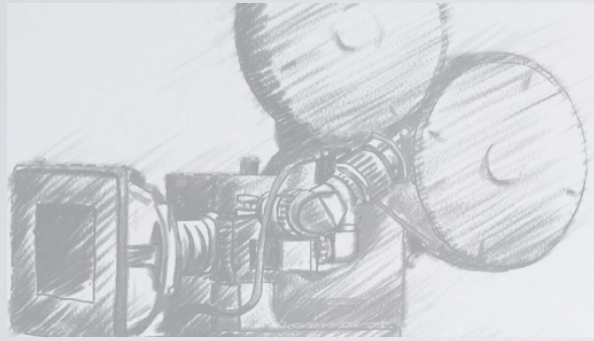




SCIENTISTS MUST FILM

an Audiovisual Storytelling Workshop

by Dan Brinkhuis & Maarten Roos



SCIENTISTS MUST FILM

Dan Brinkhuis & Maarten Roos

CONTENT

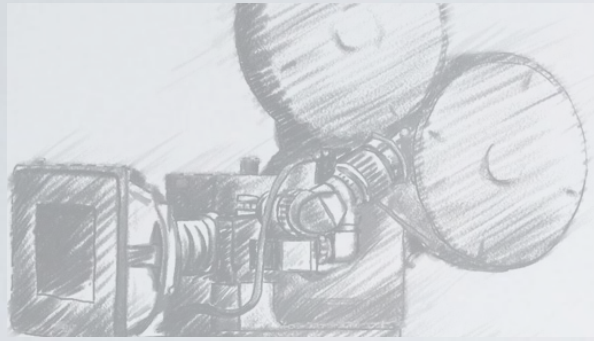
Who & What?

Audience?

Story?

Film?

Getting Started!



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Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Dan Brinkhuis

Producer & Director

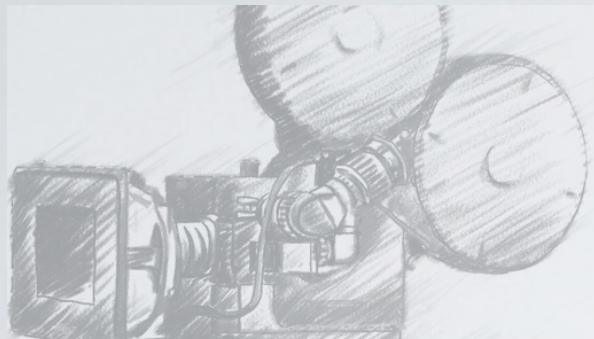


Founder ZCENE MovingMediaCompany (2000-2010)

Founder ScienceMedia.nl (2011-today)

Communication consultant Royal NIOZ (2012-today)

- 20 Years experience in commissioned film production.
- Key clients: IODP, Ocean Leadership, NSF, NWO, Royal NIOZ, WHOI,



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WHO & WHAT?

AUDIENCE?

STORY?

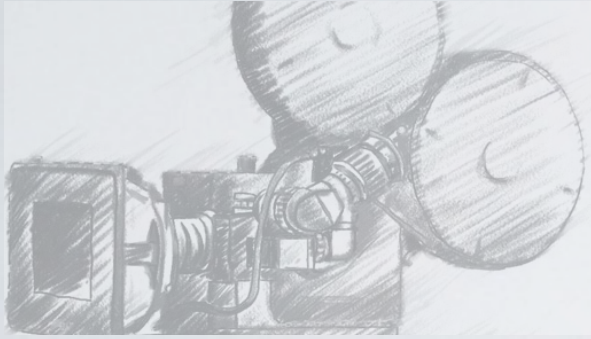
FILM?

GETTING STARTED!



DANS „Sharing Data” clip > <https://www.youtube.com/watch?v=HJbo-OAaJII>

Introducing the (new) IODP > <https://www.youtube.com/watch?v=yZvmI5Gg4wo>



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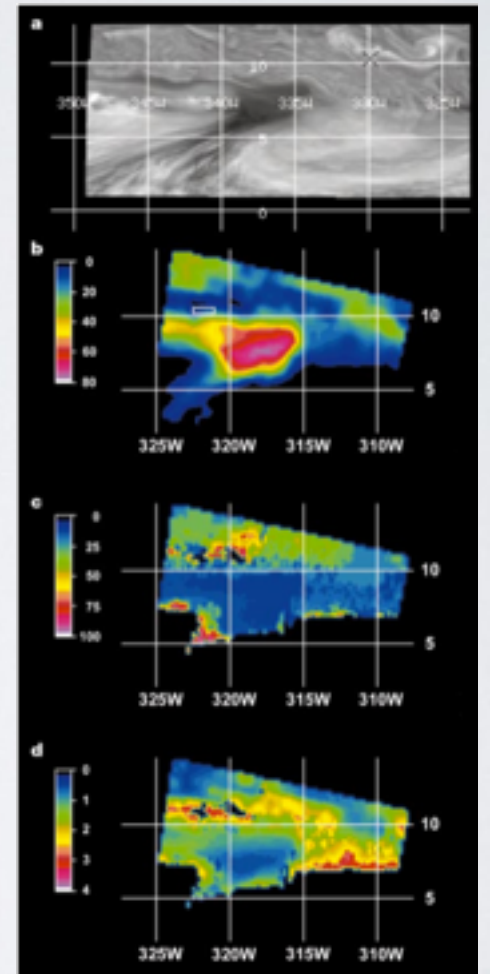
WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

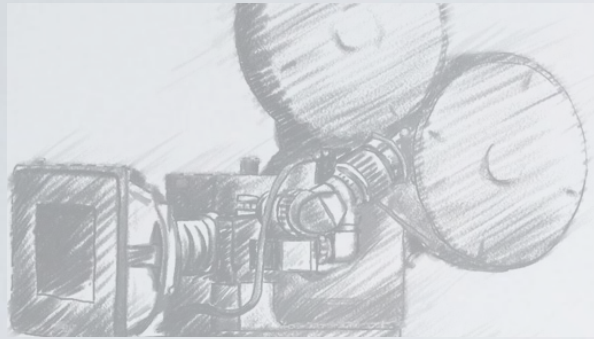
Maarten Roos

Planetary Scientist (1991-2006):

Venus, Jupiter, Saturn, Minor Bodies

31 publications; 2 PhD students, etc..





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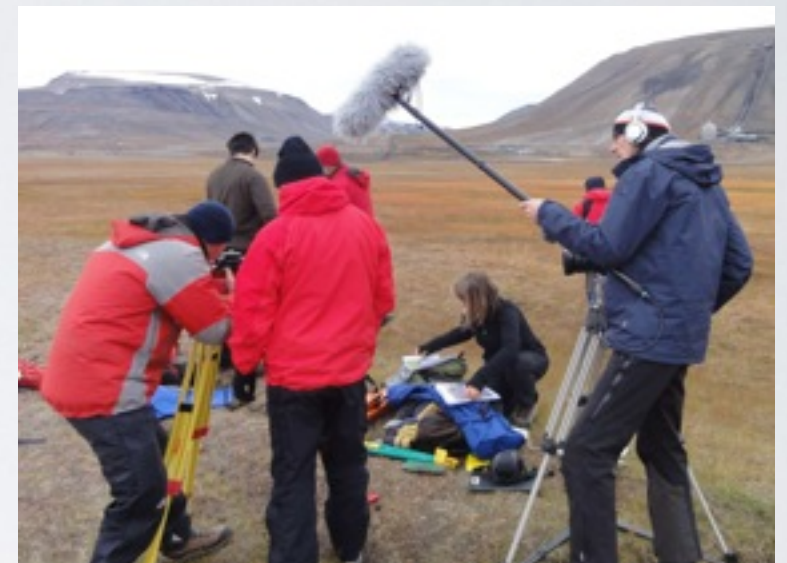
Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Maarten Roos

Filmmaking (2006-now):

Science, Music, Art



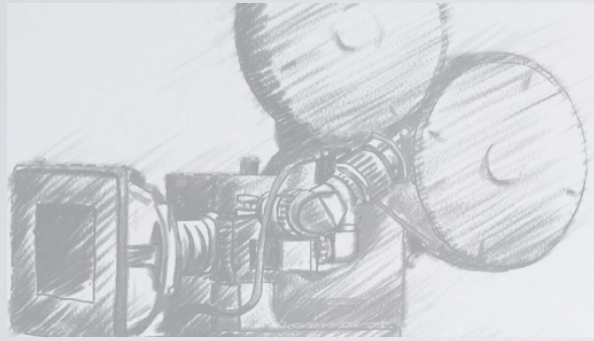
self-shooting/writing/editing/etc. director

40+ films; educational, documentary,

creative, promotional, ...

2 broadcast credits





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Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Maarten Roos

Filmmaking (2006-now):

Science, Music, Art

teaching filmmaking & editing

Oxford Academy of Documentary Film

Oxford Brookes (workshop coming up!)

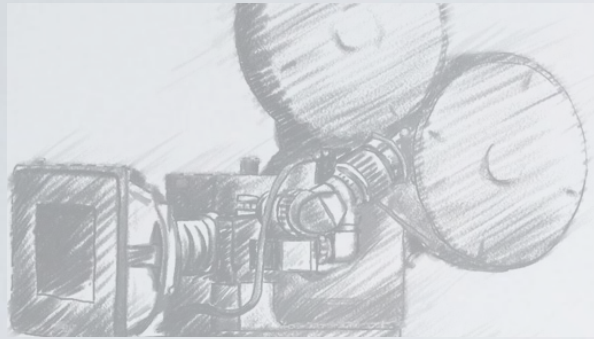
SAE Oxford

On Demand!



"If you can't think of five parameters at the same time, you shouldn't be a PhD student"

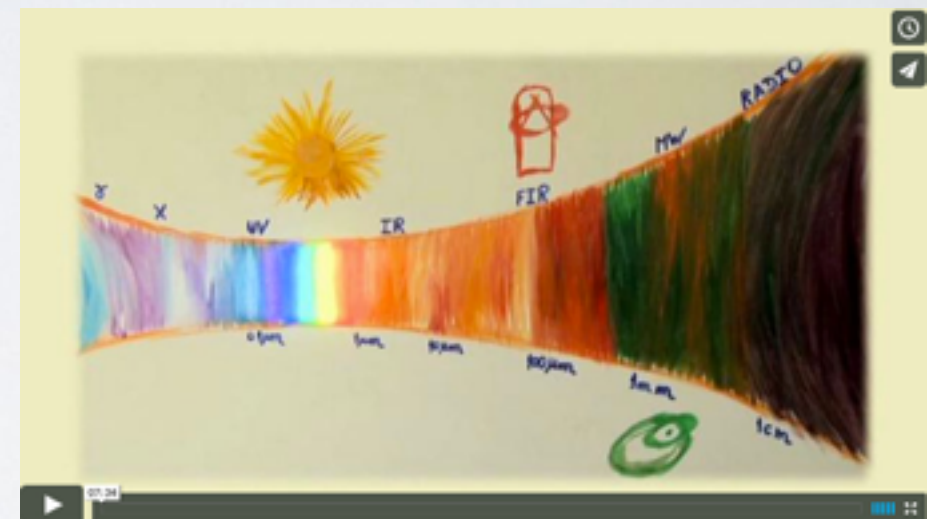




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Dan Brinkhuis & Maarten Roos

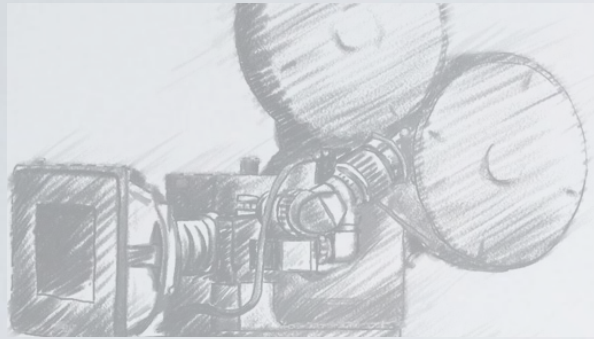
WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!



Between Mars and Svalbard > vimeo.com/ondemand/betweenmarsandsvalbard

Beyond the Red > <http://vimeo.com/album/116945>



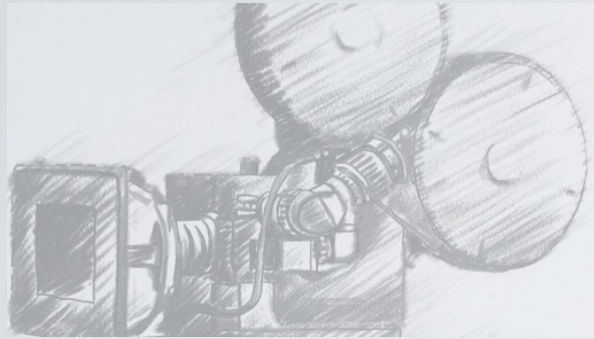


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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

WHAT do you want to communicate
and **to WHOM??**

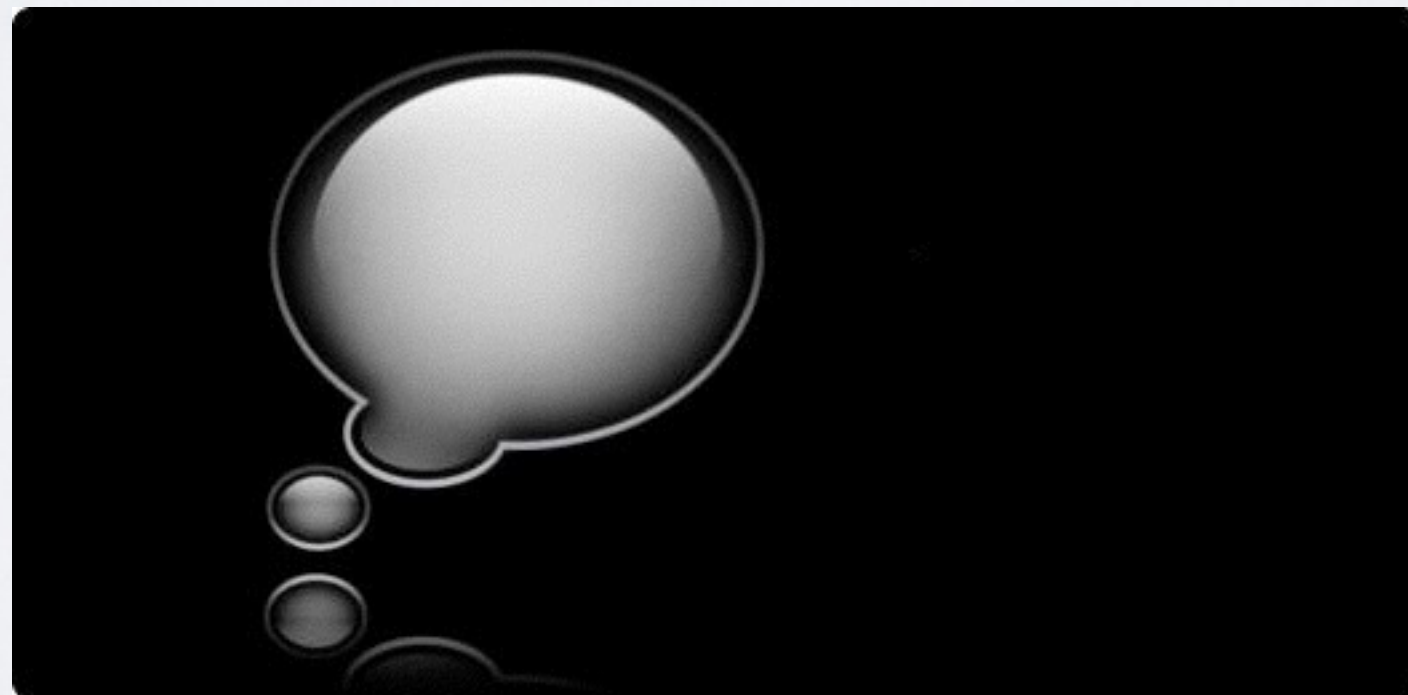


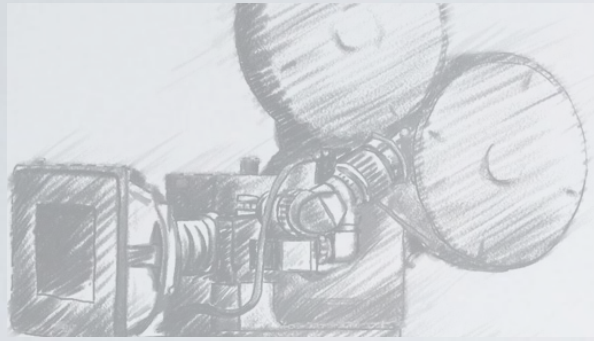
SCIENTISTS MUST FILM

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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Think before you start





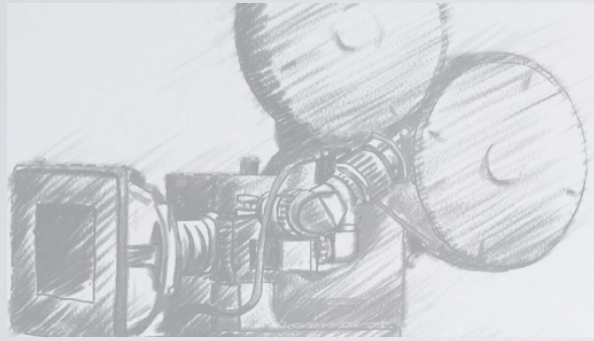
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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Think before you start





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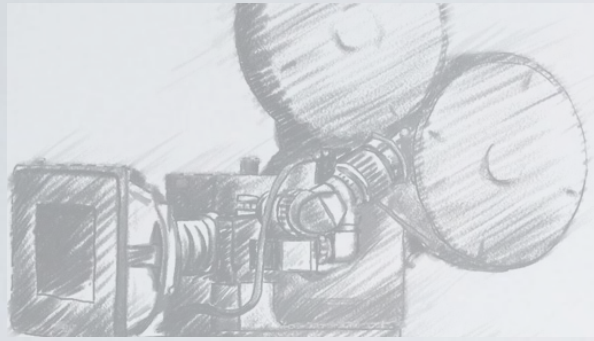
Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Think before you start

Debriefing Tool

1. Why audiovisual?
2. Content & "take-out" message?
3. Target Groups?
4. Concept & Format?
5. Viewing circumstances & length?
6. Project Management & Planning?
7. Budget Indication?
8. Evaluation?



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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

CASE: IODP 342 Newfoundland (2012)

Commissioned by NSF & Consortium for Ocean Leadership

Mission: Document the entire expedition on HD video(two month at sea).

Function: Videographer ("one man band").

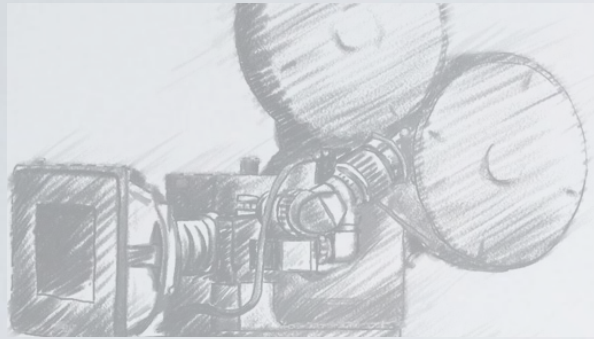
Target audience: IODP scientific community, Students and Educators.

Output: Seven expedition Episodes (8 min) & Documentary(25 min).

Budget: USD 45.000

Distribution: Mainly YouTube and other social media.

Views (YouTube): over 40.000...so far!



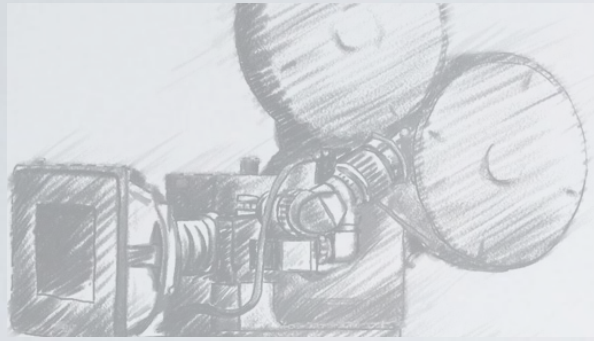
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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Audience: Who & How ?





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WHO & WHAT?

AUDIENCE?

STORY?

FILM?

GETTING STARTED!

Quick study of the NASA Explorer Youtube audience

animations & data

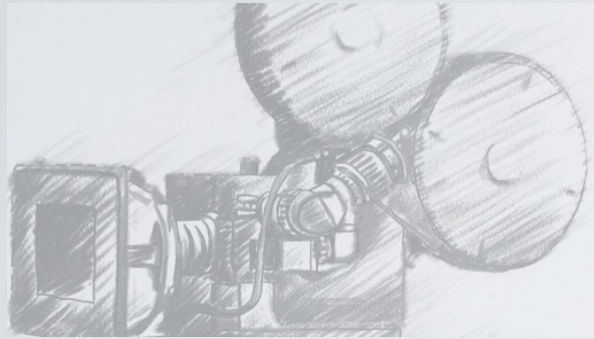
educational

people profiles

61

science stories

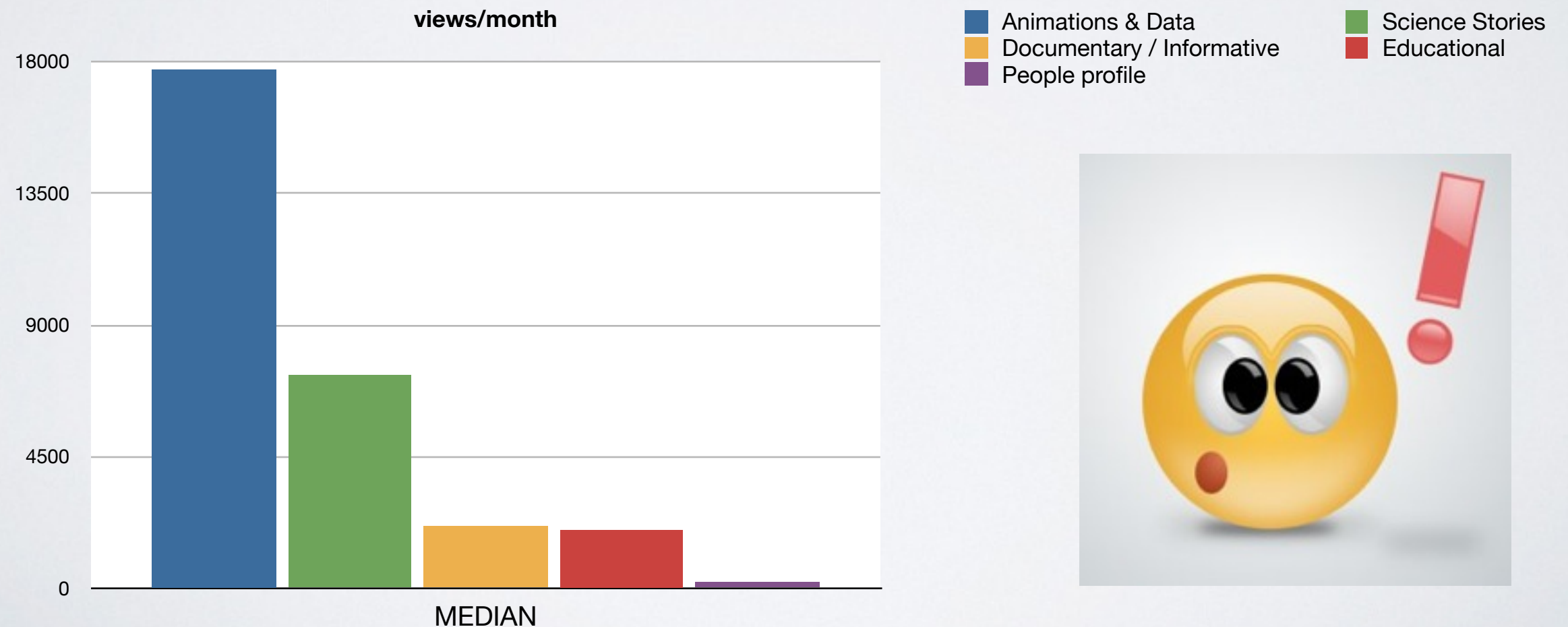
documentary / informative

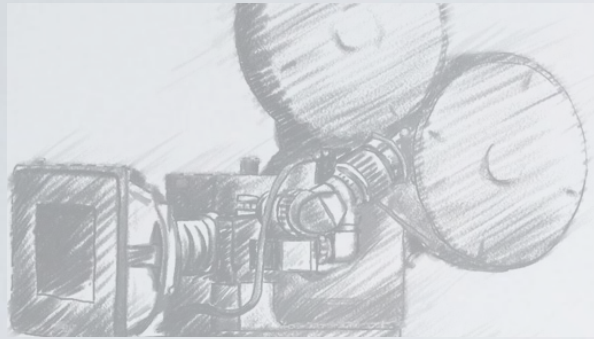


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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Quick study of the NASA Explorer Youtube audience





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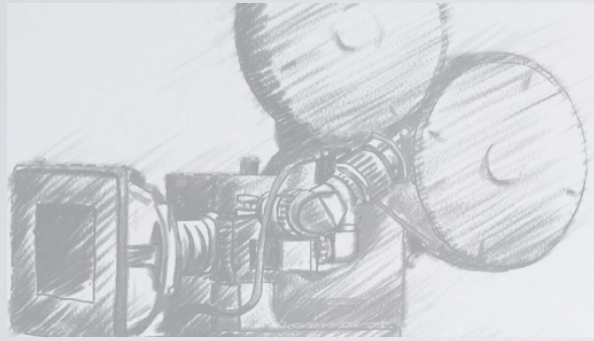
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WHO & WHAT? AUDIENCE? **STORY?** FILM? GETTING STARTED!

What is Story?



Something told in the form
of a causally-linked set of events



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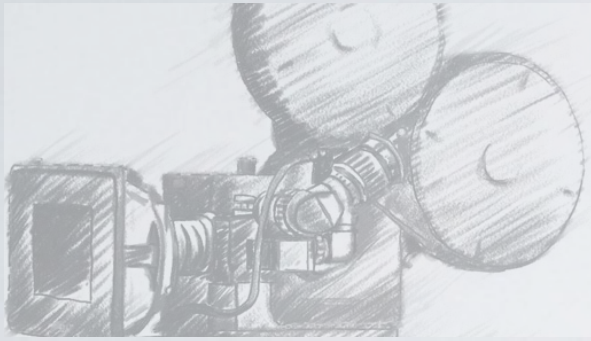
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WHO & WHAT? AUDIENCE? **STORY?** FILM? GETTING STARTED!

What is Story?



The key **emotional relationships** and **conflicts** of **characters** in **pursuit** of their **goals**, which develop into a series of events

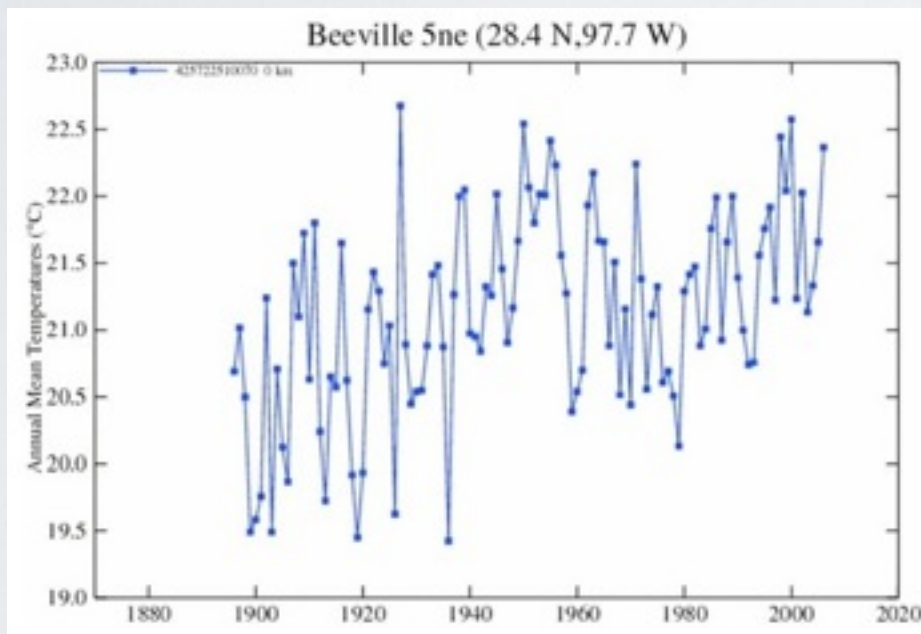


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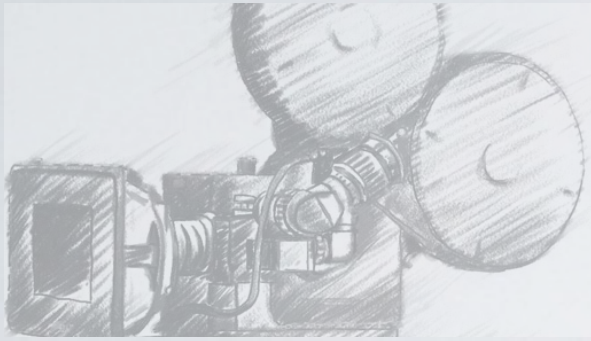
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WHO & WHAT? AUDIENCE? **STORY?** FILM? GETTING STARTED!

What is a Science Story?



Illustrated Lecture

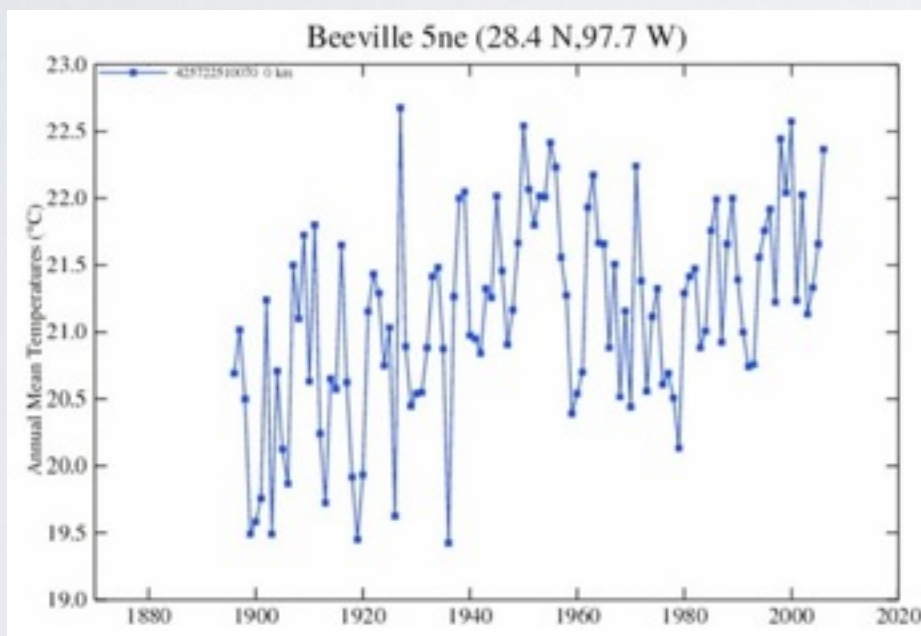


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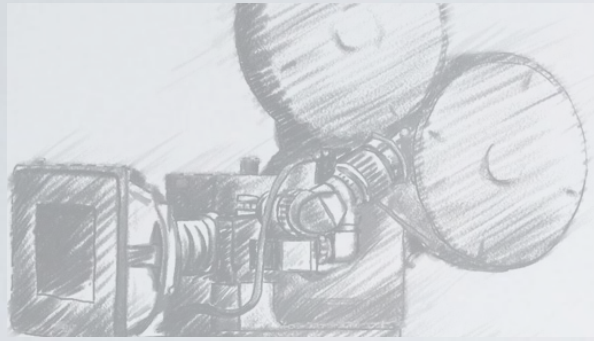
Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? **STORY?** FILM? GETTING STARTED!

What is a Science Story?



The key emotional ?? relationships and conflicts of characters in pursuit of their goals, which develop into a series of events



SCIENTISTS MUST FILM

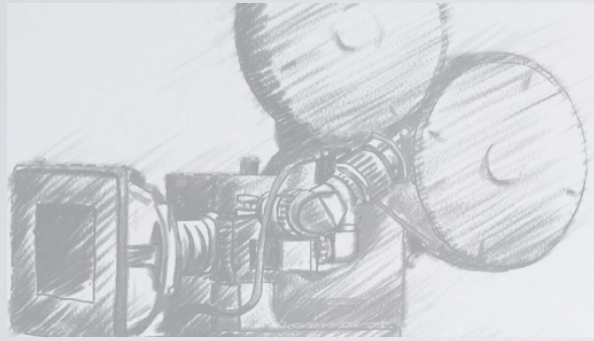
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WHO & WHAT? AUDIENCE? **STORY?** FILM? GETTING STARTED!

Ideas to build a Science Story

- Expectations are NOT met: interest is created!
- Record expectations & development & outcome

The key emotional ?? relationships and conflicts of characters in pursuit of their goals, which develop into a series of events



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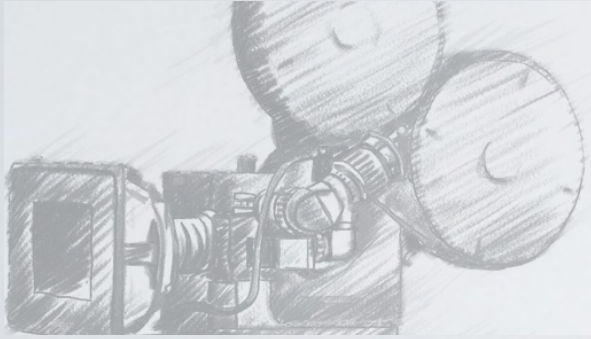
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WHO & WHAT? AUDIENCE? **STORY?** FILM? GETTING STARTED!

Ideas to build a Science Story

- Empathy (identification of audience with the main character)
- Engaging & surprising (wow-factor)!

The key emotional ?? relationships and conflicts of characters in pursuit of their goals, which develop into a series of events



SCIENTISTS MUST FILM

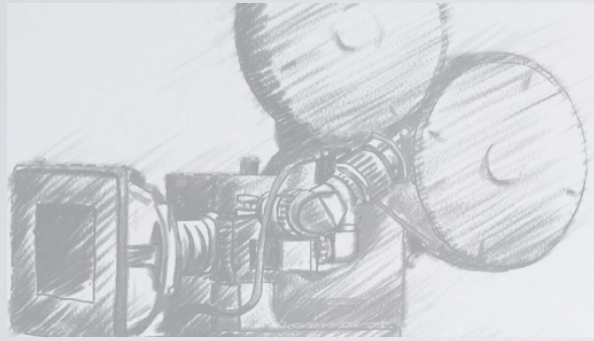
Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? STORY? **FILM?** GETTING STARTED!

What does film best?

Make the audience wonder;

Triggers questions / interest



SCIENTISTS MUST FILM

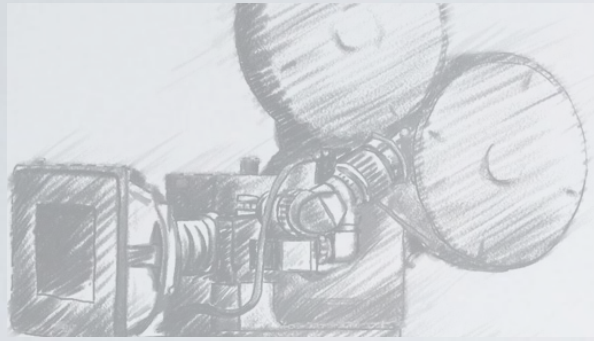
Dan Brinkhuis & Maarten Roos

WHO & WHAT? AUDIENCE? STORY? **FILM?** GETTING STARTED!

What does film best?

Make the audience wonder;
Triggers questions / interest

Captivating!!



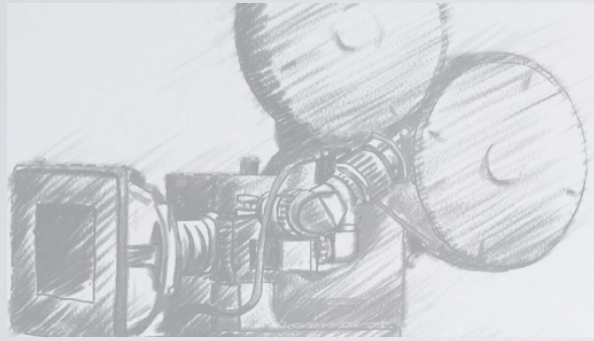
SCIENTISTS MUST FILM

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WHO & WHAT? AUDIENCE? STORY? **FILM?** GETTING STARTED!

What can film do for you?

1. complementing & documenting research
2. Visualizing the science process ("Behind the Scenes")
3. promote research (for example > for future funding)
4. inspire different audiences (next generation of scientists)
5. starting point for further exploration (audience engagement and captivation)



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WHO & WHAT?

AUDIENCE?

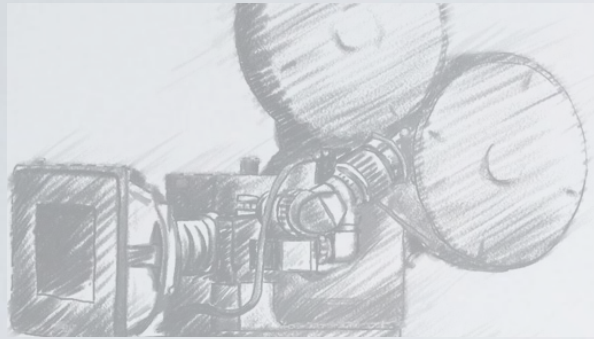
STORY?

FILM?

GETTING STARTED!



© PA / BBC



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WHO & WHAT?

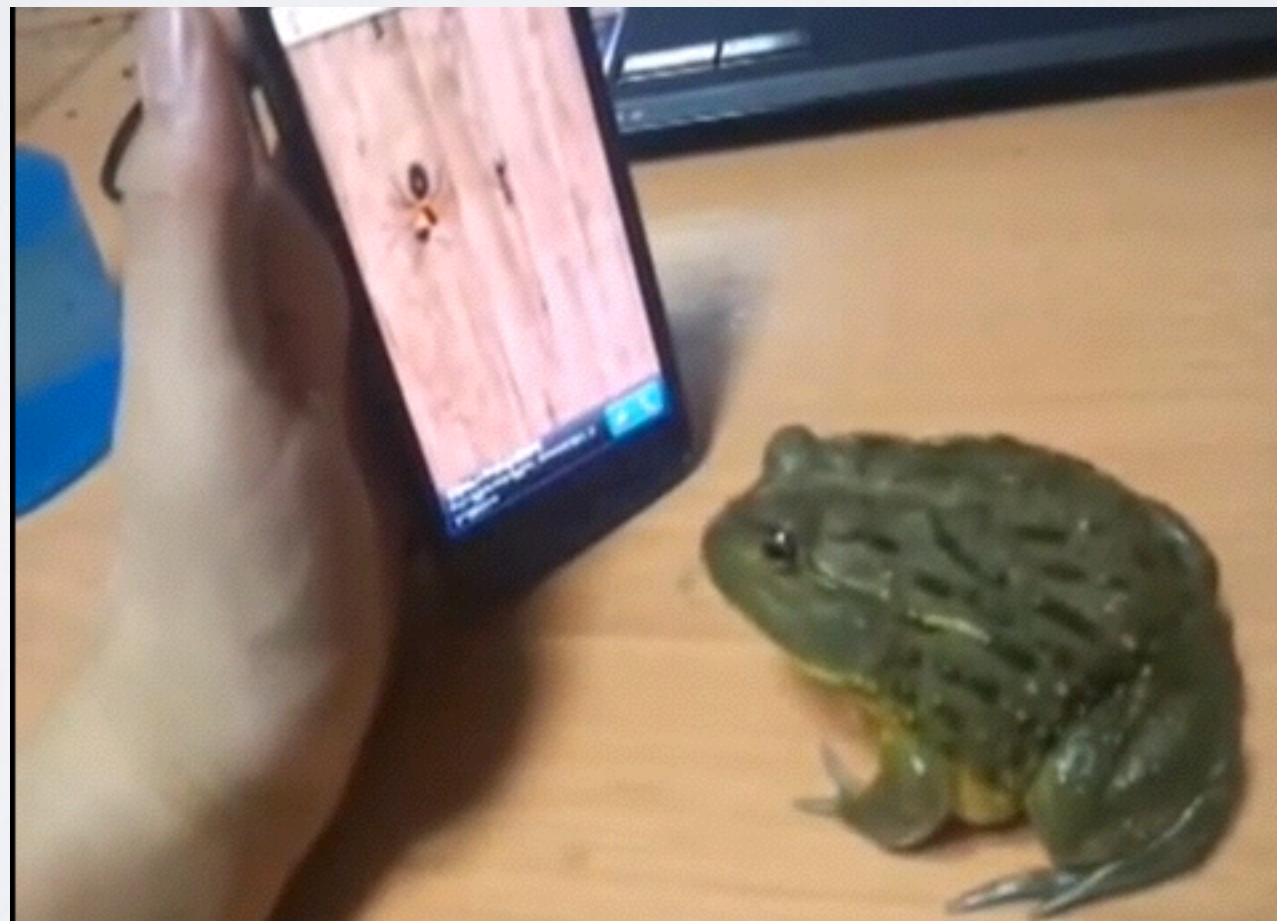
AUDIENCE?

STORY?

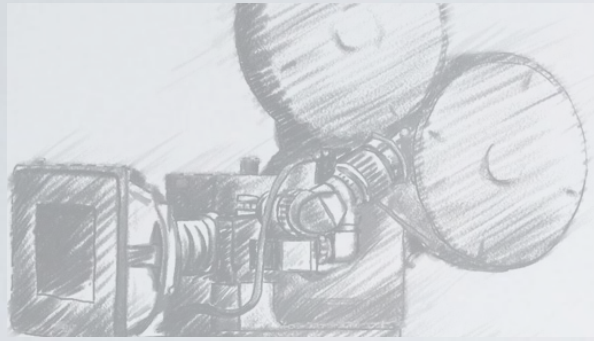
FILM?

GETTING STARTED!

Why bother making a good looking video?



pissing off a frog (Youtube)



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WHO & WHAT?

AUDIENCE?

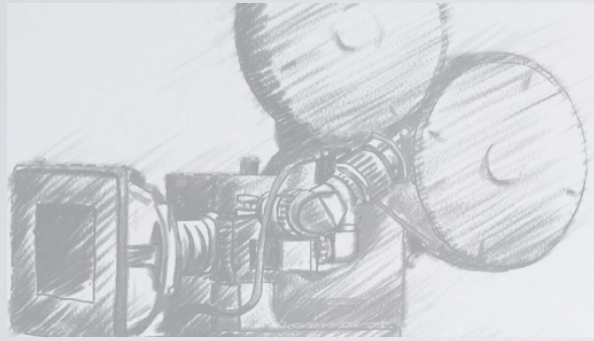
STORY?

FILM?

GETTING STARTED!

Equipment





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WHO & WHAT?

AUDIENCE?

STORY?

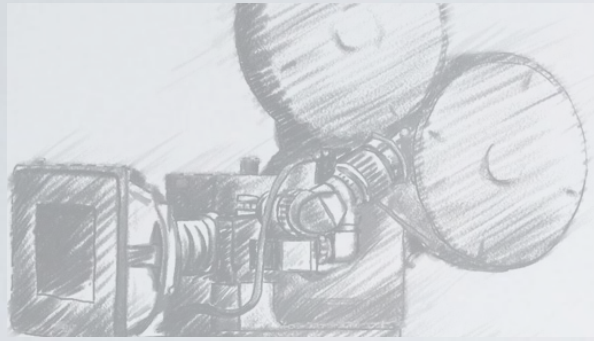
FILM?

GETTING STARTED!

Think AUDIO

1. Carries emotion (voice, music)
2. Makes viewer connect
3. Bad audio = no repair





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WHO & WHAT?

AUDIENCE?

STORY?

FILM?

GETTING STARTED!

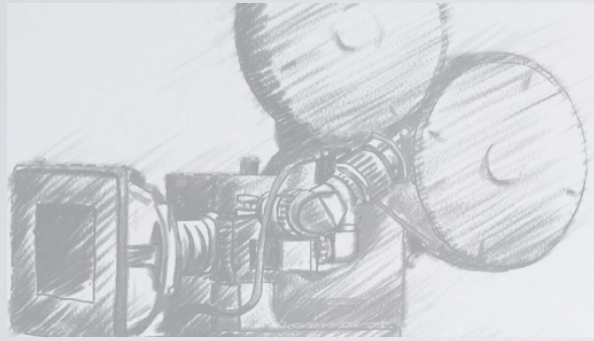
SOUND is PARAMOUNT

1. microphone: external if possible:

- a. lavalier
- b. on camera in suspension
- c. boom (expensive)
- d. H2 recorder

2. headphones: USE ALWAYS





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WHO & WHAT?

AUDIENCE?

STORY?

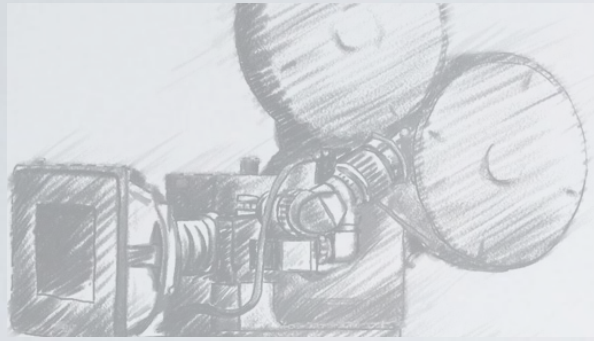
FILM?

GETTING STARTED!

SOUND is PARAMOUNT

3. Room noise: switch off if possible
4. Record location sound (room tone / wild track)
5. Levels -12 / -6 dB
6. Shut up!!





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WHO & WHAT?

AUDIENCE?

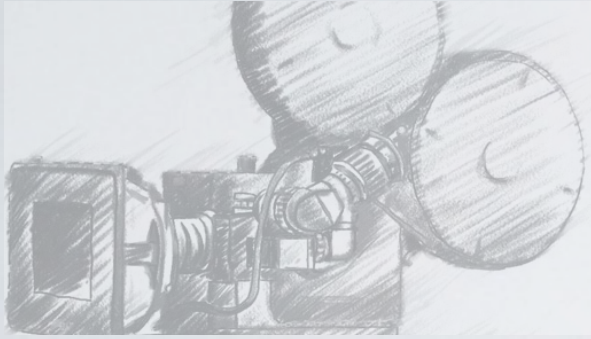
STORY?

FILM?

GETTING STARTED!

Think VIDEO

1. What is in the frame
2. What is NOT in the frame
3. How you frame it tell a story
4. Backgrounds tell stories too



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WHO & WHAT?

AUDIENCE?

STORY?

FILM?

GETTING STARTED!

Film Kit

1. Camera:

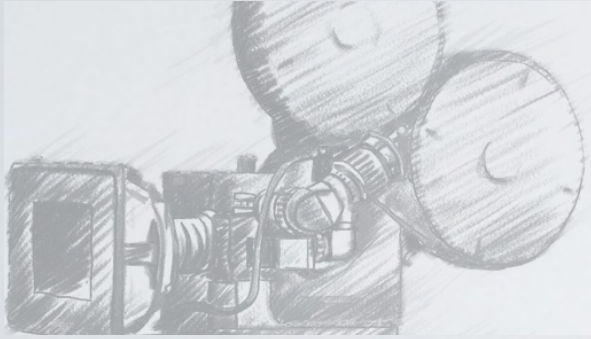
a. HD

b. DSLR

c. GoPro type

2. Manual exposure, focus & white balance

3. Tripod



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WHO & WHAT?

AUDIENCE?

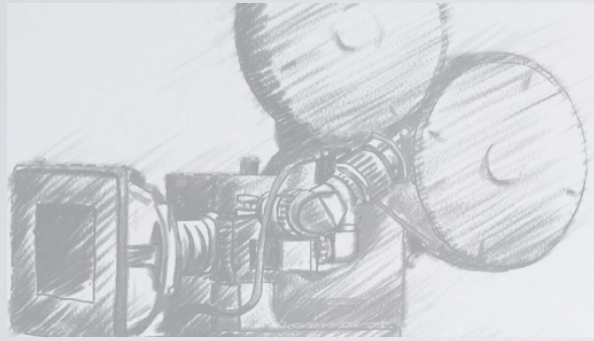
STORY?

FILM?

GETTING STARTED!

THINK and SHOOT

1. Shot variety
2. HOLD THAT SHOT > 10 seconds!!
3. Vary shots



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WHO & WHAT?

AUDIENCE?

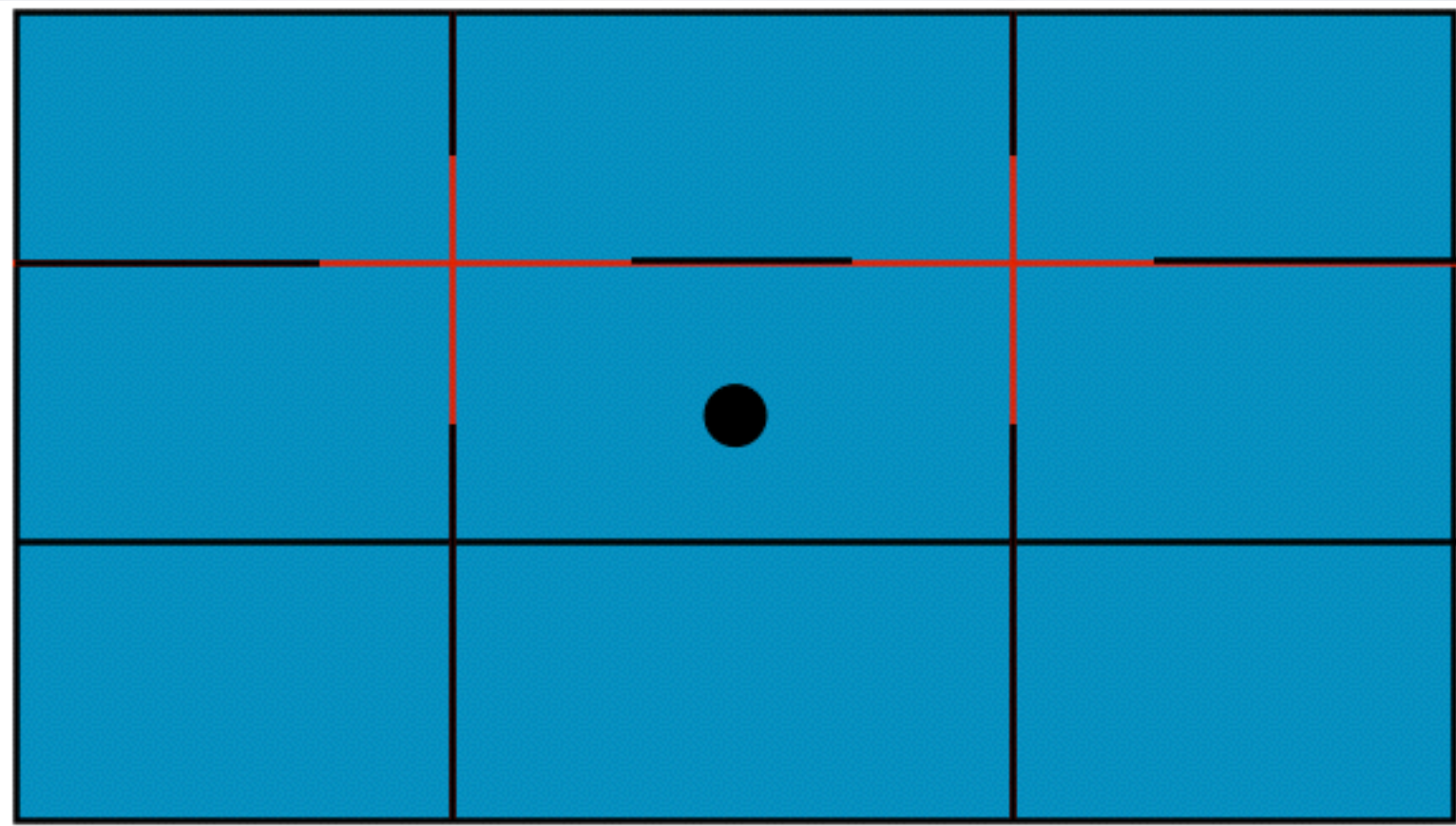
STORY?

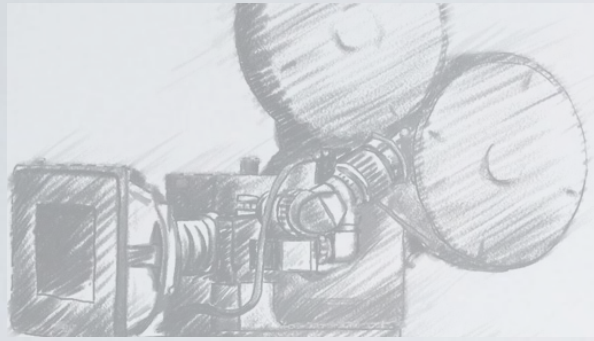
FILM?

GETTING STARTED!

THINK and SHOOT

I. Framing





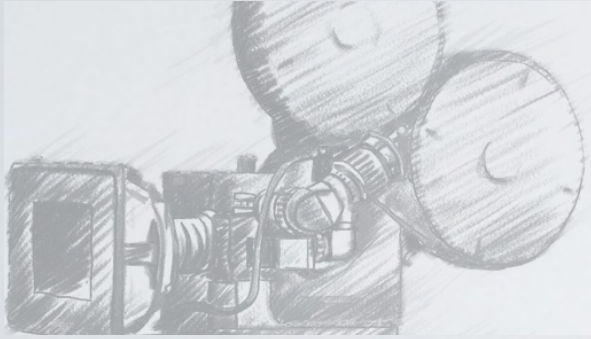
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WHO & WHAT? AUDIENCE? STORY? FILM? GETTING STARTED!

Editing: Power at your fingertips

1. Create a new reality
2. Meaning of shots is not fixed
3. Chronology is not fixed, time is a loose concept



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WHO & WHAT?

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GETTING STARTED!

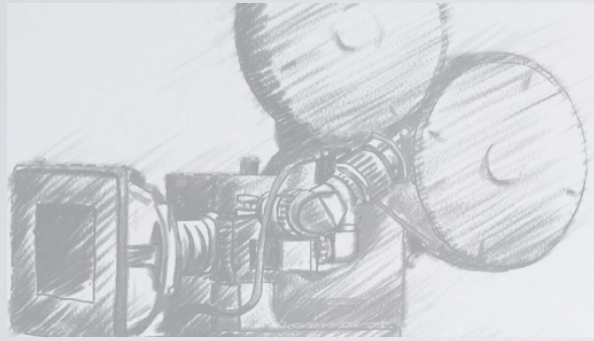
Editing Tools

Mac

- iMovie
- Final Cut Pro (7 & X)
- Adobe Premiere

PC

- Avid
- Adobe Premiere
- many low budget software solutions



SCIENTISTS MUST FILM

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WHO & WHAT?

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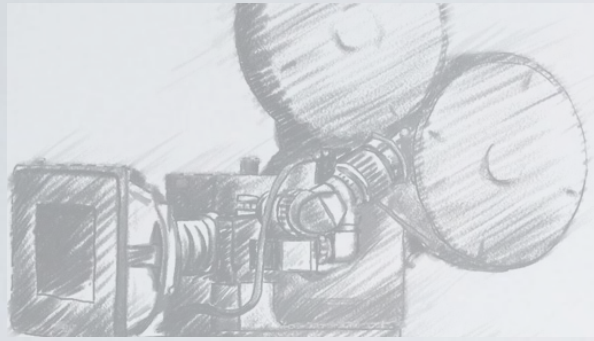
STORY?

FILM?

GETTING STARTED!

LINKS & DOCS & ...

- some docs will be available on geolog.egu.eu
- sciencemedia.nl
- lightcurvefilms.com
- jove.com
- medea-awards.com (sign up news letter)



SCIENTISTS MUST FILM

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WHO & WHAT?

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STORY?

FILM?

GETTING STARTED!



Thank you and ... ACTION!