



Visual Communications

for scientists





Close your eyes and recall a favorite memory





Close your eyes and recall a favorite memory



Neuroscientists tell us that 70% of memories are recorded as images.





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- Superiority effect: you will remember 60% of something when you learn it with imagery, versus 6%



“We live in a world where there is more and more information, and less and less meaning.”

Jean Baudrillard, 1986
French theorist of postmodernity.

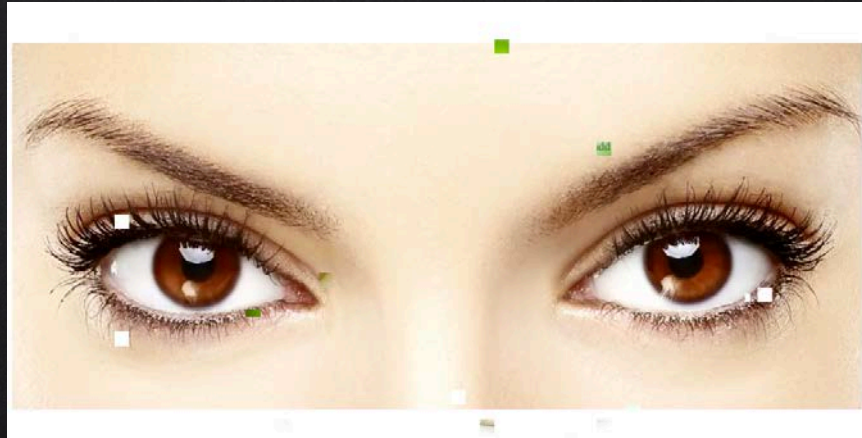




Five exabytes of information

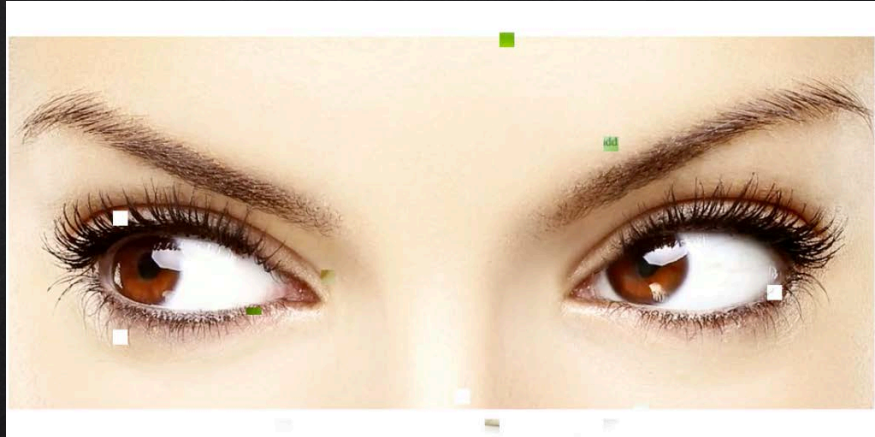
was created from the dawn of civilization until 2003. From 2003 until 2010 that amount was created every two days. From 2010 until now, it is probably created every day.

Increasingly Visual

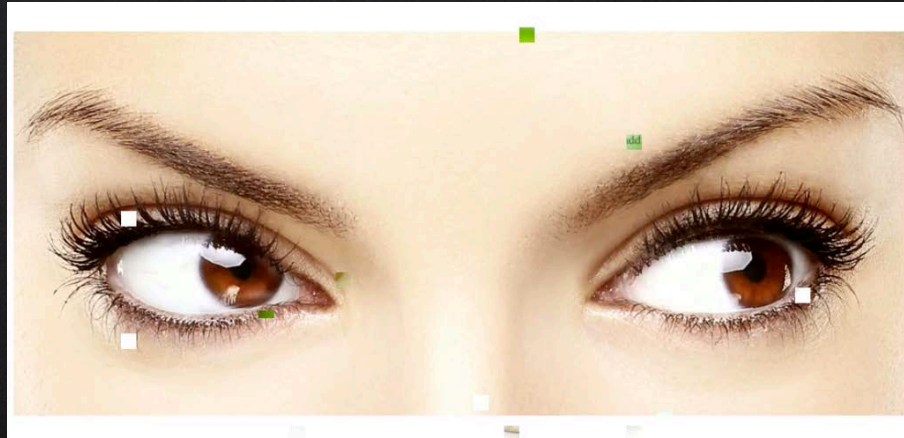


Heat Sensor Software

Increasingly Visual



Increasingly Visual



Media: Diapers-01.jpg
Time: 00:00:00.000 - 00:00:06.033
Participant fiber: J6



Extra gentle for the most sensitive skin.

Sensitive skin is more prone to irritation. Add the chemicals and moisture of a diaper and you have diaper rash.

Baby Wipes' unique high-absorbency natural-blend cotton fibers provide cotton-soft, extra thick, gel-free protection for your baby's sensitive skin. The chlorine-free materials and absorbent polymers is non-toxic and non-irritating. Clinically tested and pediatrician recommended for babies with allergies and sensitive skin.



Participant Fiber 20



Engineered for the most sensitive skin.

...add the benefits of natural fibers and moisture ...

...type high absorbency natural-blend cotton ... provides cotton-soft, extra thick, gel-free protection ... baby's sensitive skin. The chlorine-free materials and ... is non-toxic and non-irritating. Clinically ... pediatrician recommended for babies with allergies and sensitive skin.



TM

4x4

A MODEL FOR
KNOWLEDGE
CONTENT

Credit: Bill Shander

=

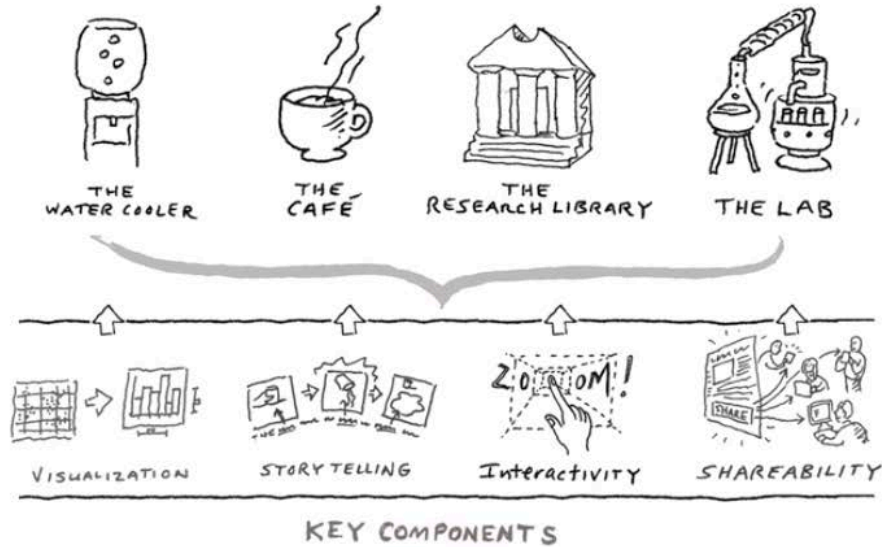




Photo Essay & Photo Exhibit

*Telling a story
&
Making a Statement*



Storytelling

Storytelling helped early man survive.



The evolutionary imperative is clear.

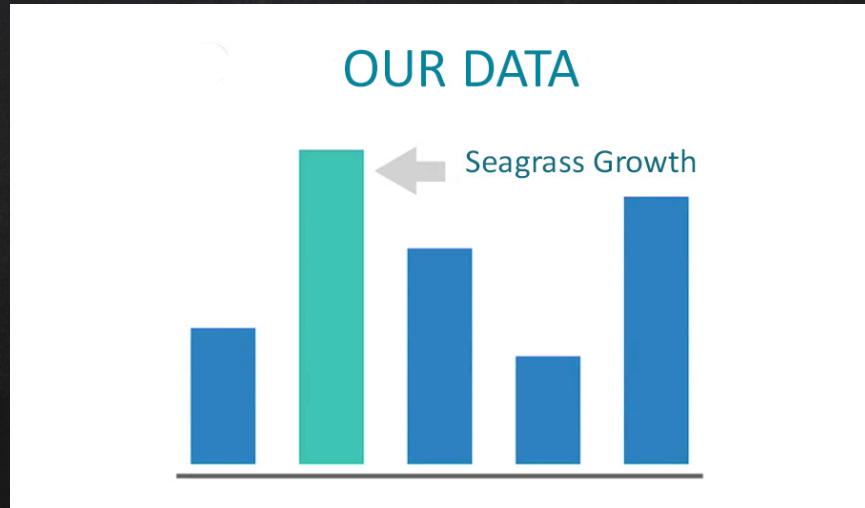


Storytelling





Data





Data

Means nothing without context



Data

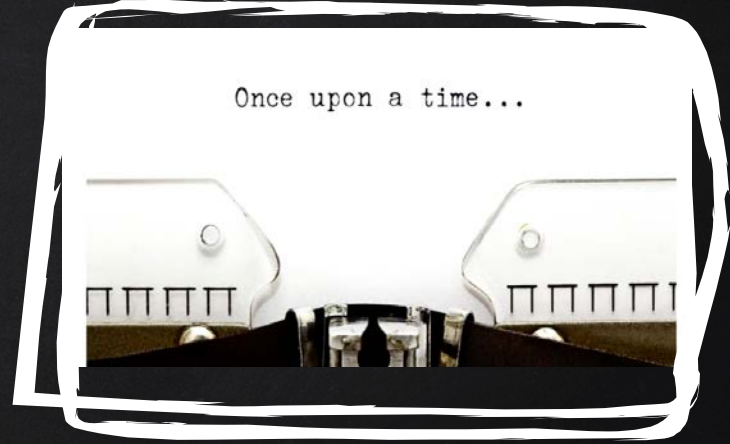
Means nothing without context

Communicating data within the context of story is ...

necessary, natural and essential



Define a narrative





Craft the narrative

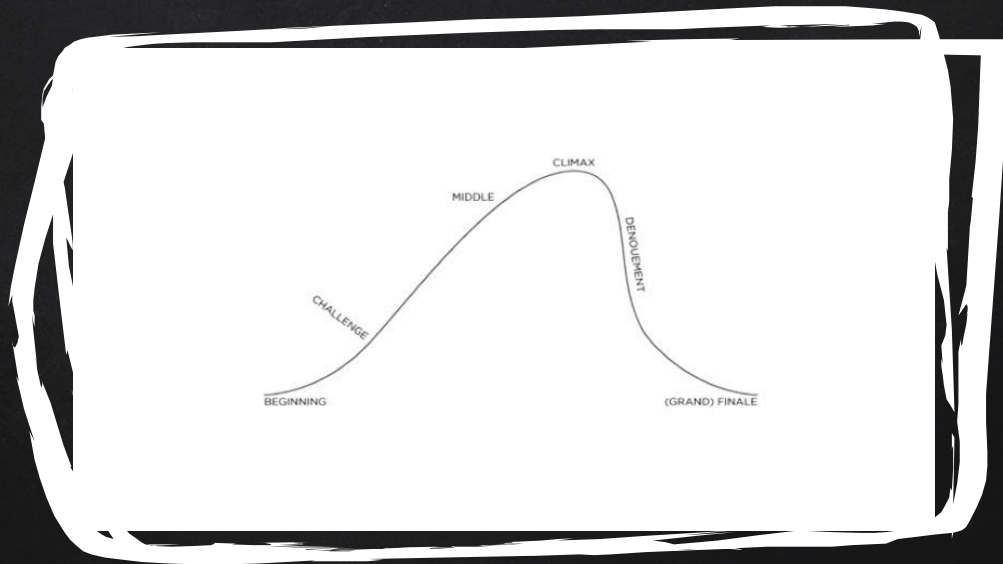
And then convey necessary information

The narrative leads your audience
into the information.



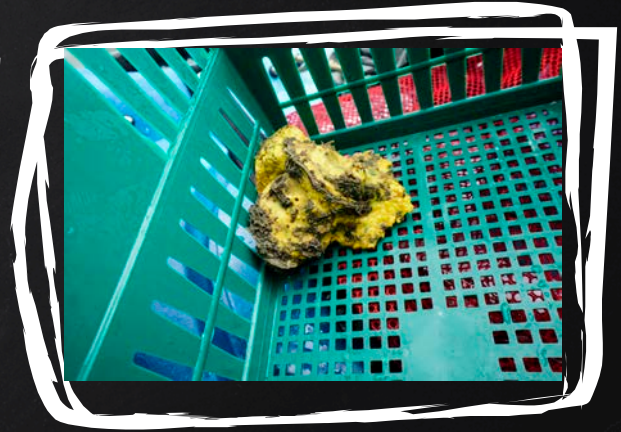


Beginning, middle, end...





Beginning, middle, end...





Beginning, middle, end...



Wide, medium tight



Your Headline



New York Times: Serious, professional



Your Headline



New York Times: Serious, professional

New York Post: Salacious, fun, catchy



Your Headline



New York Times: Serious, professional

New York Post: Salacious, fun, catchy

What is the tweet?



Information

+



Characters

+



Narrative

=



Meaning



Single Story





Establish

Characters

Setting

Tone

Mood



Establish

Characters

Setting

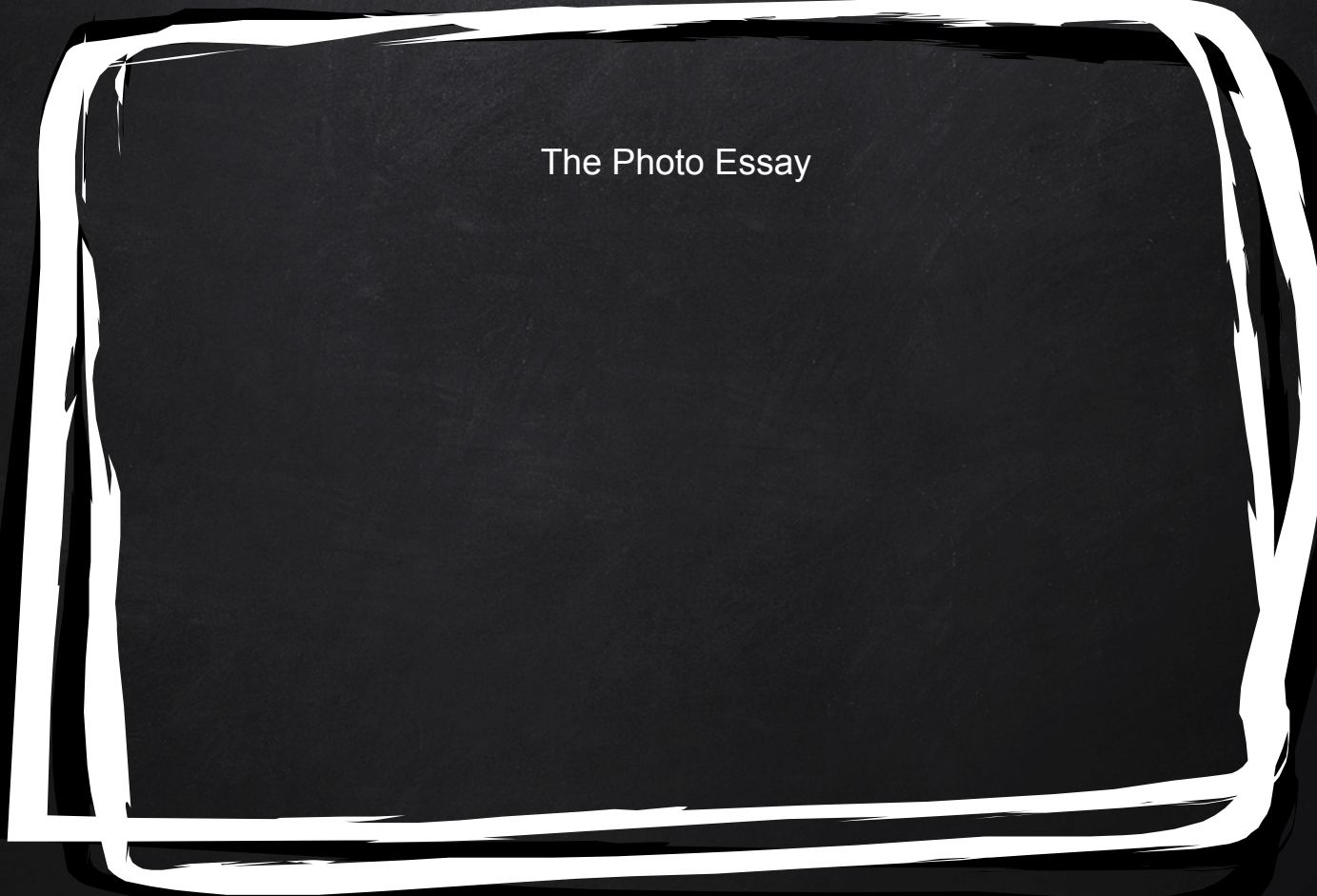
Tone

Mood

Wide

Medium

Tight

A thick, white, hand-drawn rectangular border with irregular, slightly wavy edges, framing the central text. The border is composed of two parallel lines, giving it a double-line appearance.

The Photo Essay



Value surveys and maps



Figure 1. Redrawn from Schwartz, S.H. (2006) Basic Human Values: theory, measurement and applications. *Revue française de sociologie*, 47: 259-288. Re-printed with permission. Design by Minute Works



Establish

References

Ryan, L. (2016). *The Visual Imperative: Creating a Visual Culture of Data Discovery*. Morgan Kaufman.

Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, 2(1).

Ware, C. (2012). *Information Visualization: Perception for Design*, 3rd Edition, revised, Elsevier.



When Communicating

IAEC

DO

- Talk more about how amazing nature is and use inspiring pictures to reinforce this
- Talk about caring for other people
- Give members and supporters active roles – encourage them to do their own thing and be creative
- Be clear about both what the problems are and what solutions are needed
- Make solutions proportionate to the problem, if the ask is something small show how it relates to the bigger change needed.

DON'T

- Overemphasize threat – threat is important in raising awareness but over using it can make people feel helpless
- Ignore the problems or the solutions – both are needed to make it clear why action is important
- Appeal to the desire for power and money. Don't appeal to conflicting values at the same time – avoid using intrinsic and extrinsic values together
- Portray your organization as a lone superhero – we cannot succeed on our own, messages should emphasize how supporters are part of the solution.



Thank You



Audience



Audience

Culture



Audience

Culture

Level of expertise



Audience

Culture

Level of expertise

Consumption context



Audience

Culture

Level of expertise

Consumption context

Accessibility



Audience

Culture

Level of expertise

Consumption context

Accessibility

Believers or skeptics



Audience

Culture

Level of expertise

Consumption context

Accessibility

Believers or skeptics

Action