Chair for Information Architecture | HS2008

Elective Course Information Architecture

Thinking with your Eyes

Prof Dr. Gerhard Schmitt

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iA
Chair for Information Architecture

Thinking with your Eyes

Overview

- INFORMATION Architecture - Review L2
- From Information to Knowledge
- Principles
- Perception and your Minds Eye

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- INFORMATION Architecture - Review L2
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INFORMATION Architecture - Review L2

Information R/Evolution

From Card Boxes to Database

From Database to Hypertext

From Hypertext to Web 2.0

From Web 2.0 to Web 3.0

INFORMATION Architecture - Review L2

Information R/Evolution

E-Mail
Static Websites
Discussion Forums
Instant Messaging
Chat Rooms

Dynamic Websites
Portals
Communities
Agents
Video Conferencing
Web Services
Collaborative Filtering
VOIP

Blogs
Wikis
RSS
Mashups
Pod- & Webcasts
Social Networks
Social Bookmarking
Folksonomies

A Case for Research: The PhaseX experiments

PhaseX is the major experiment at the Chair for CAAD from 1996-1998

http://www.space.arch.ethz.ch/

Summary

The trend in social media is the continuous shift to upload and share rich multi-media content and there is a big movement towards participation.

This represents a real shift in media consumption and production from passivity (TV) to personal control (YOUTUBE).

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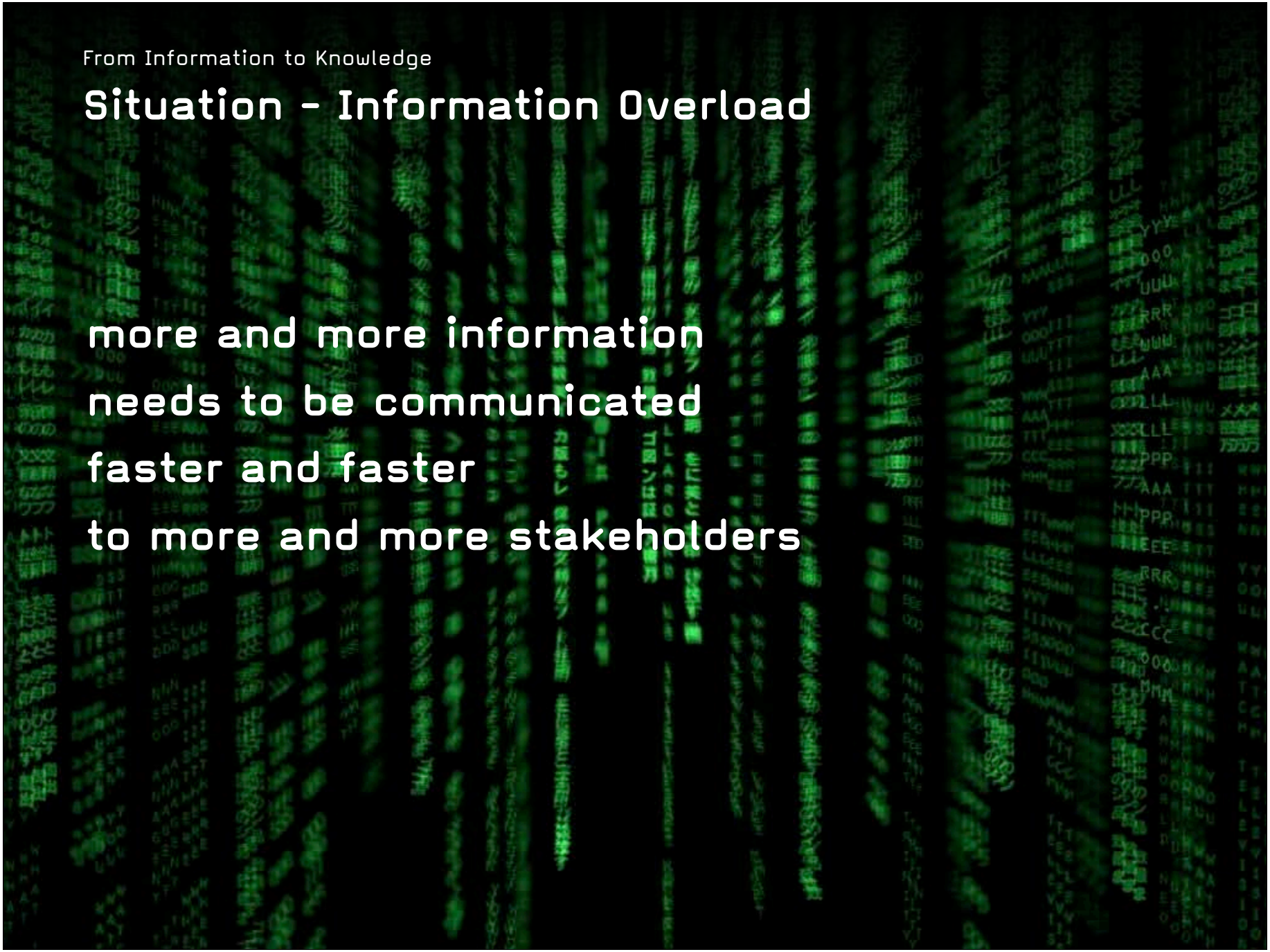
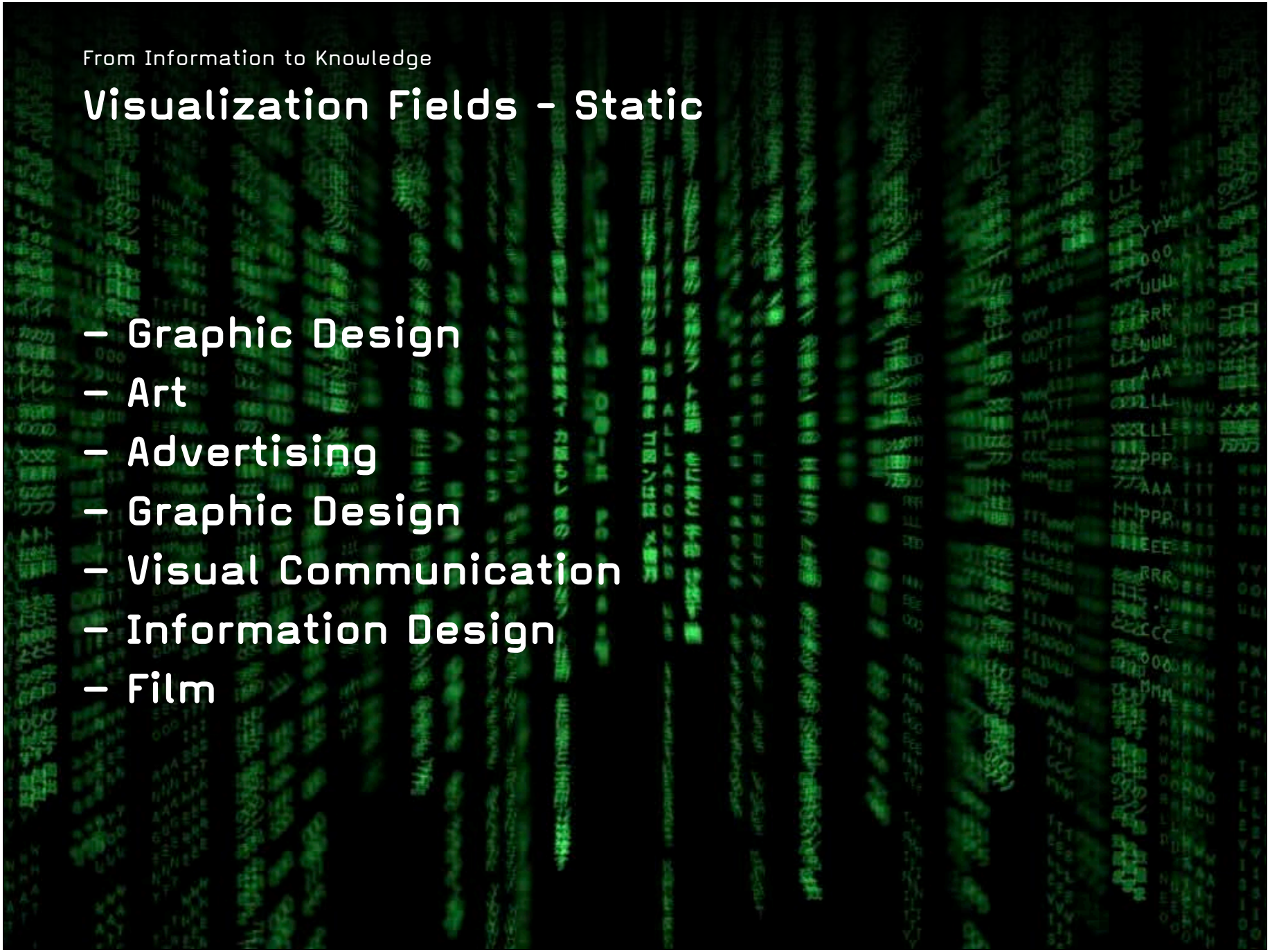

From Information to Knowledge
Situation - Information Overload
more and more information
needs to be communicated
faster and faster
to more and more stakeholders


From Information to Knowledge
Visualization Fields - Static
– Graphic Design
– Art
– Advertising
– Graphic Design
– Visual Communication
– Information Design
– Film

From Information to Knowledge

Visualization Fields - Interactive

- Interaction/Game Design
- Geographic Information System (GIS)
- Medical Visualization
- Scientific Visualization
- Computer Graphics
- Information Visualization
- Human Computer Interaction
- Virtual Reality
- Augmented Reality
- Knowledge Visualization

Discussion

Why is this relevant to you?

From Information to Knowledge

Why is this relevant to you?

The archtitect‘s key resource in the future is the comprehensive knowledge about different visualization methods and the understanding of relations, patterns, and principles.

It is the capacity to create high level design by the combination of Architecture and Information.

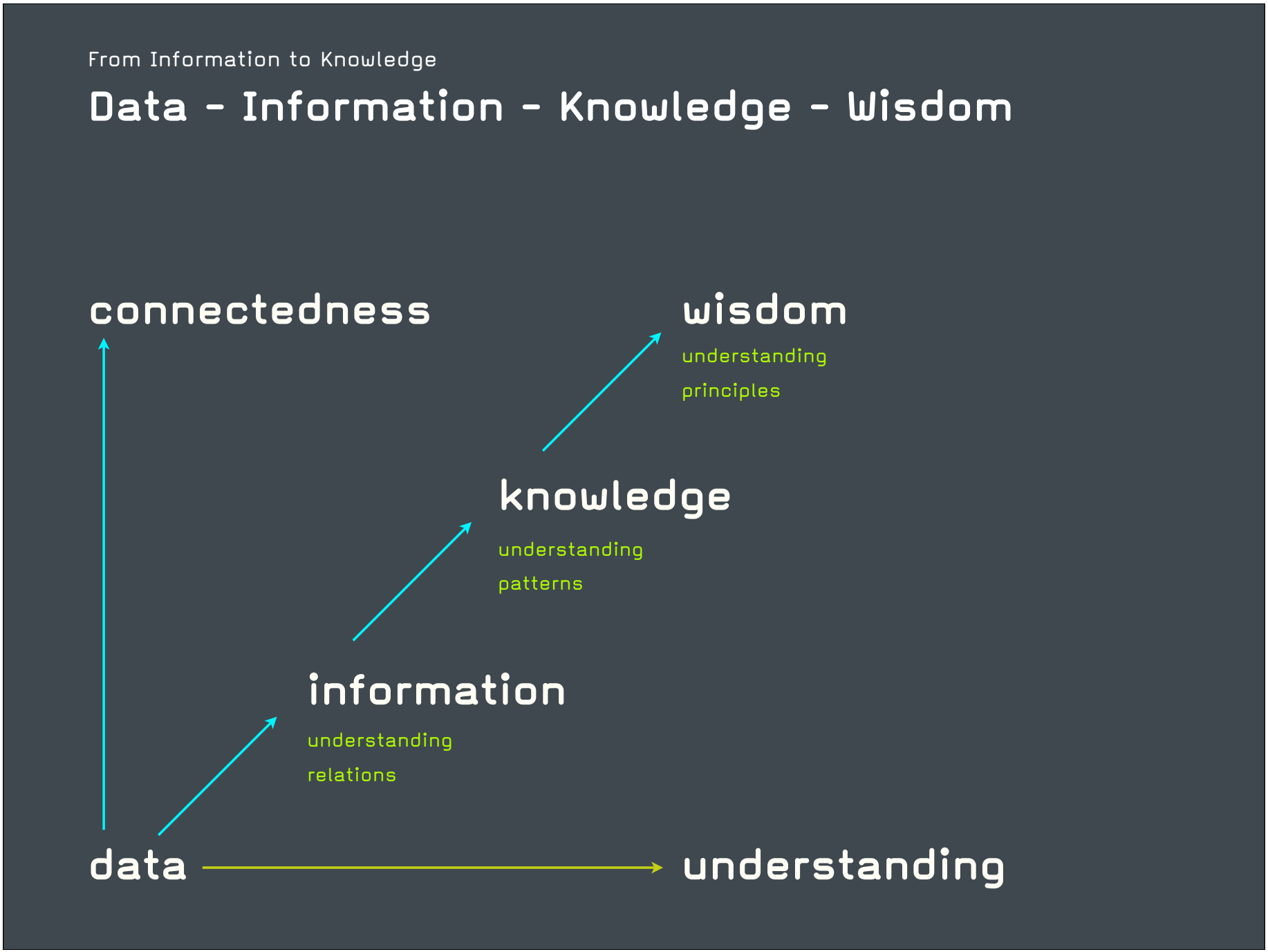
Why is this relevant to you?

Visualization Methods

- Envisioning (Mental Images, Stories)
- Sketching (Sketch)
- Expressing, Narrating (Images)
- Diagramming (Diagramms, Charts)
- Mapping (Maps)
- Materializing (Objects, Models)
- Exploring (Interactive Visualizations)

From Information to Knowledge

Data - Information - Knowledge - Wisdom



From Information to Knowledge

Data - Information - Knowledge - Wisdom

Data

Represents a fact or a statement of an event without relation to other things

Example: 42
Example: It rains

From Information to Knowledge

Data - Information - Knowledge - Wisdom

Information

Embodies the understanding of a relationship of some sort, possibly cause and effect

Example: The temperature dropped 15 degrees and then it started raining.

From Information to Knowledge

Data - Information - Knowledge - Wisdom

Knowledge

Represents a pattern that connects and generally provides a high level of predictability as to what is described or what will happen next

Ex: If the humidity is very high and the temperature drops substantially the atmosphere is often unlikely to be able to hold the moisture so it rains.

From Information to Knowledge

Data - Information - Knowledge - Wisdom

Wisdom

Embodies more of an understanding of fundamental principles embodied within the knowledge that are essentially the basis for the knowledge being what it is. Wisdom is essentially systemic.

Example: It rains because it rains. And this encompasses an understanding of all the interactions that happen between raining, evaporation, air currents, temperature gradients, changes, and raining.

From Information to Knowledge

Situation - Information Overload

Did you know...?

From Information to Knowledge

Situation - Information Overload

Students forget 90% of what they learn in class within 30 days.

From Information to Knowledge

Situation - Information Overload

Students forget 90% of what they learn in class within 30 days.

The majority of this forgetting occurs

within the first few hours after class.

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Principles

Flow of Information

Did you know...?

Principles

Flow of Information

People will remember 10%

of information presented orally

tested 72 hours after exposure...

Principles

Flow of Information

People will remember 10%

of information presented orally

tested 72 hours after exposure...

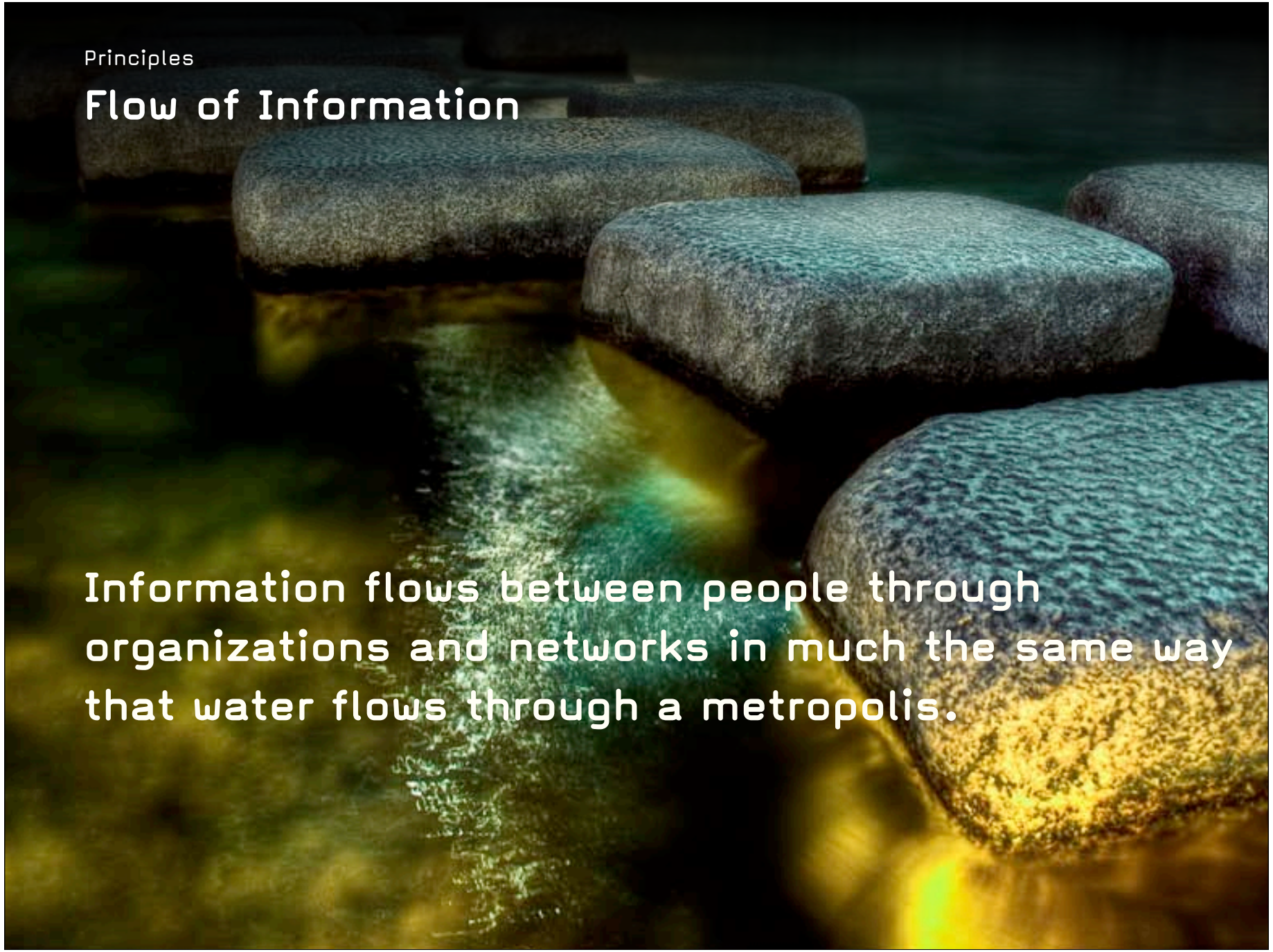
...add an image and it goes up to 65%!

Principles

Flow of Information

VISION outperforms all other senses

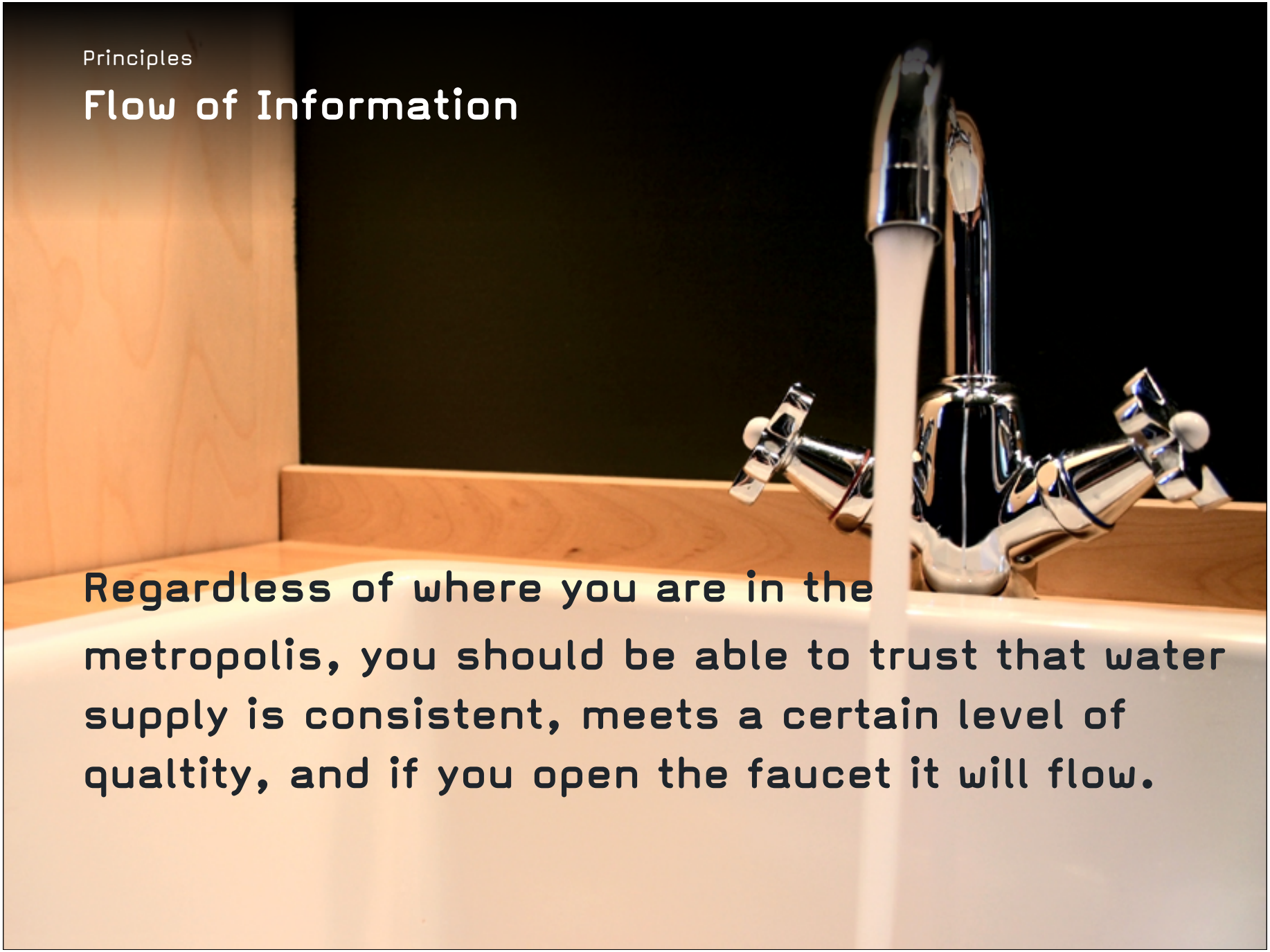
Example:



Principles

Flow of Information

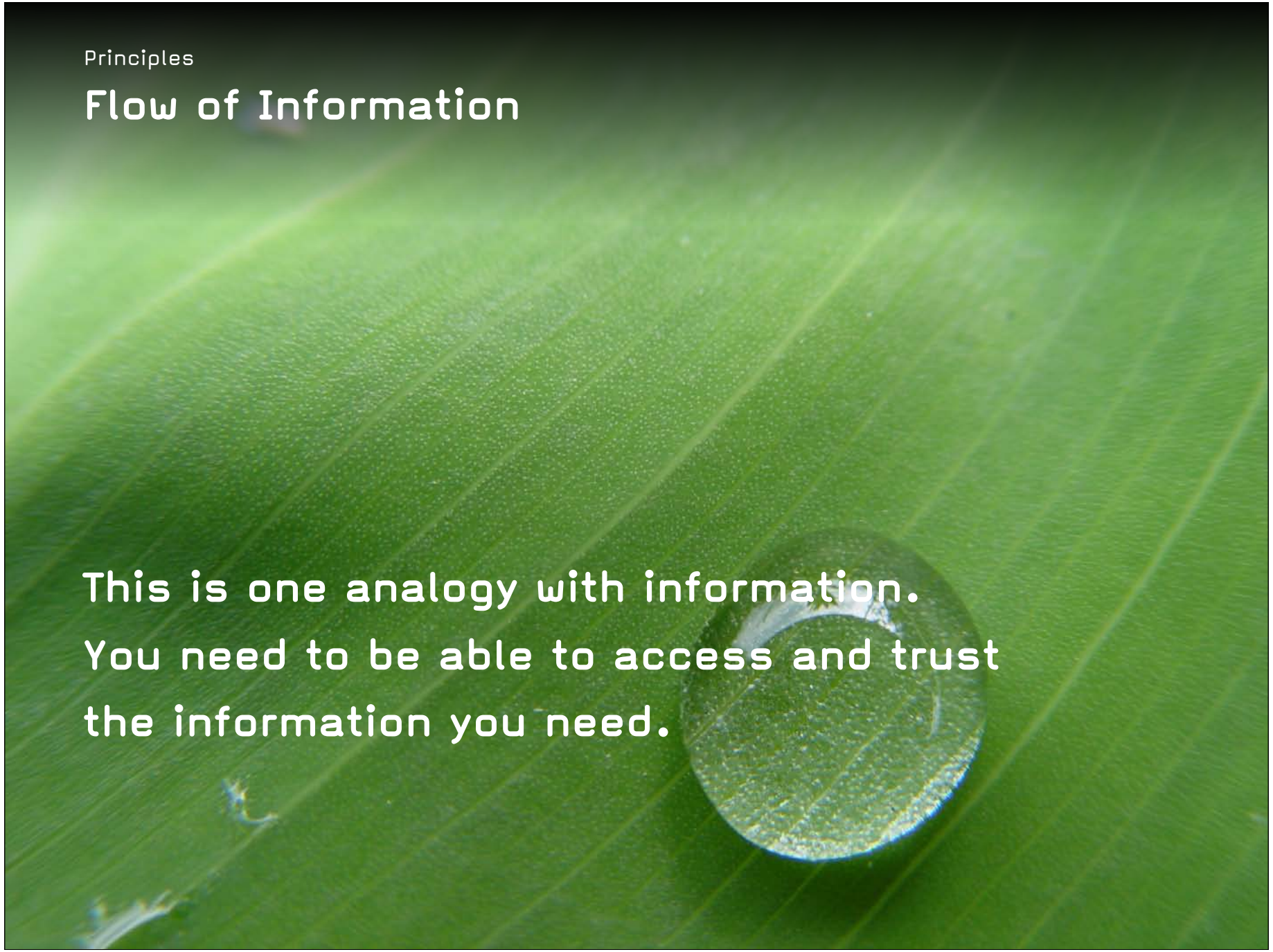
Information flows between people through organizations and networks in much the same way that water flows through a metropolis.

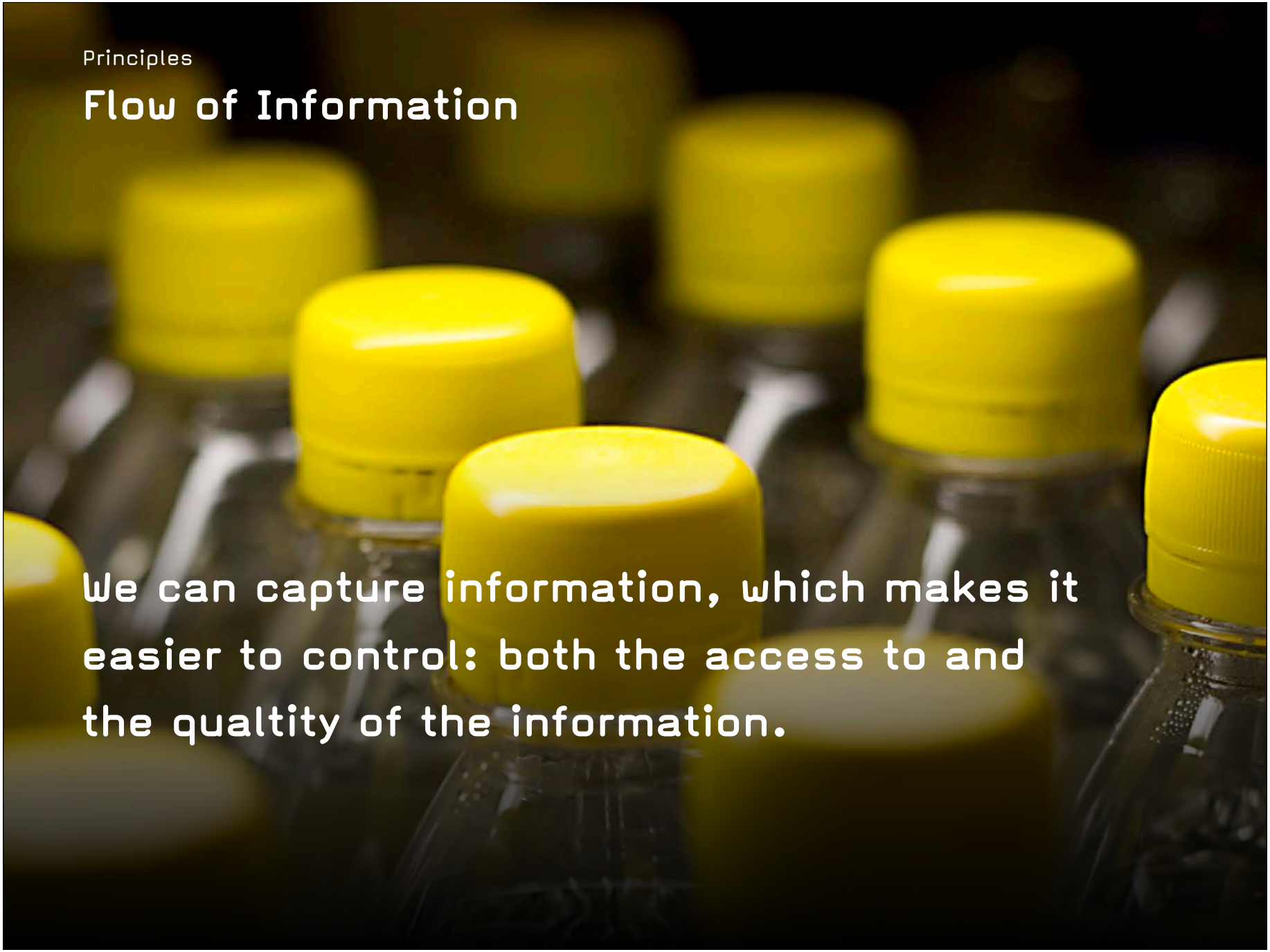


Principles

Flow of Information

Regardless of where you are in the metropolis, you should be able to trust that water supply is consistent, meets a certain level of qualtity, and if you open the faucet it will flow.


Principles
Flow of Information
This is one analogy with information.
You need to be able to access and trust
the information you need.



Principles

Flow of Information

We can capture information, which makes it easier to control: both the access to and the qualtity of the information.

Principles

Flow of Information

This is actually a dangerous environment, not only for a goldfish!

Principles

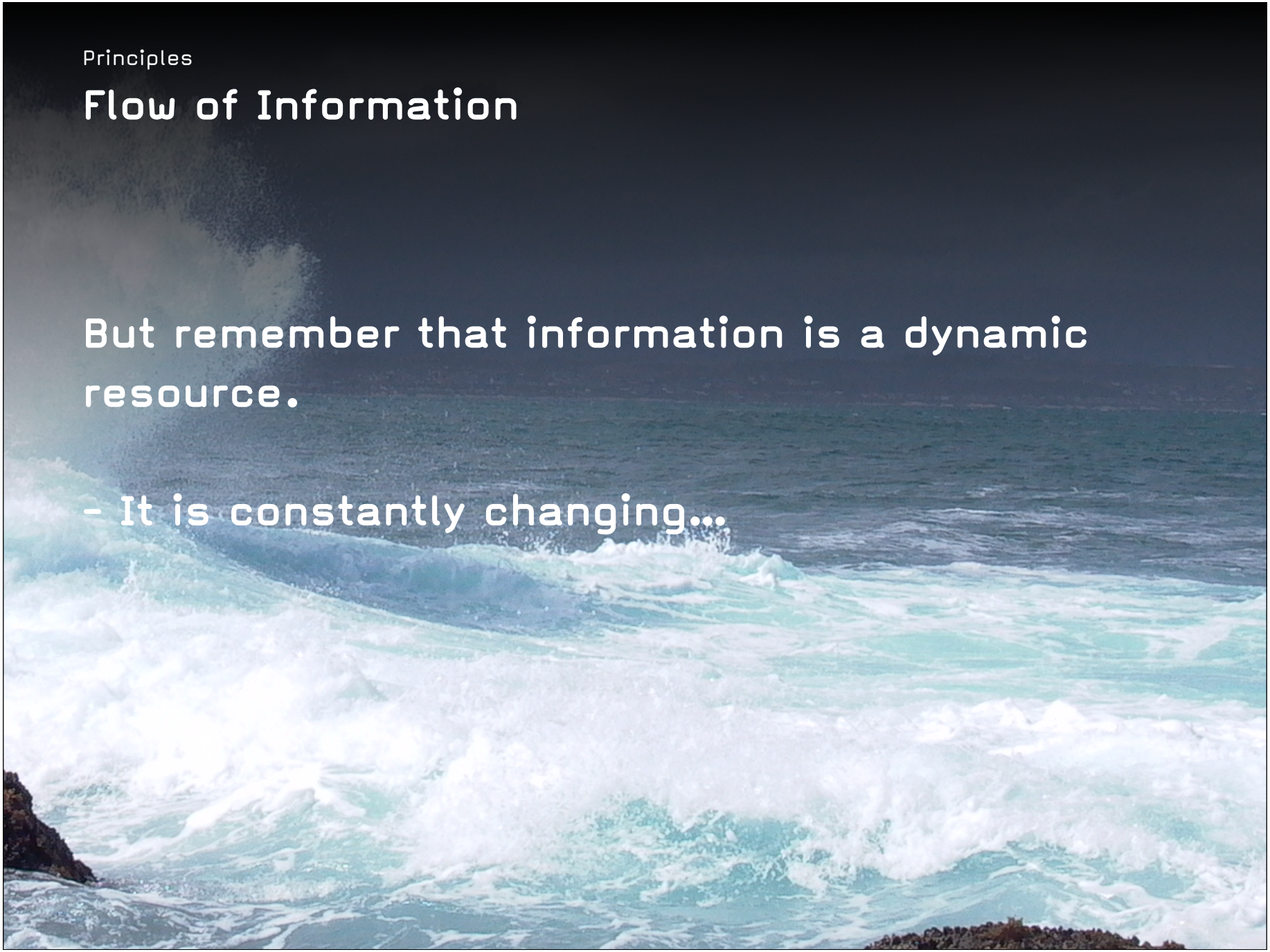
Flow of Information

Now to the point...

Principles

Flow of Information

Making information flow between people is fundamental for collaboration and knowledge exchange to happen.

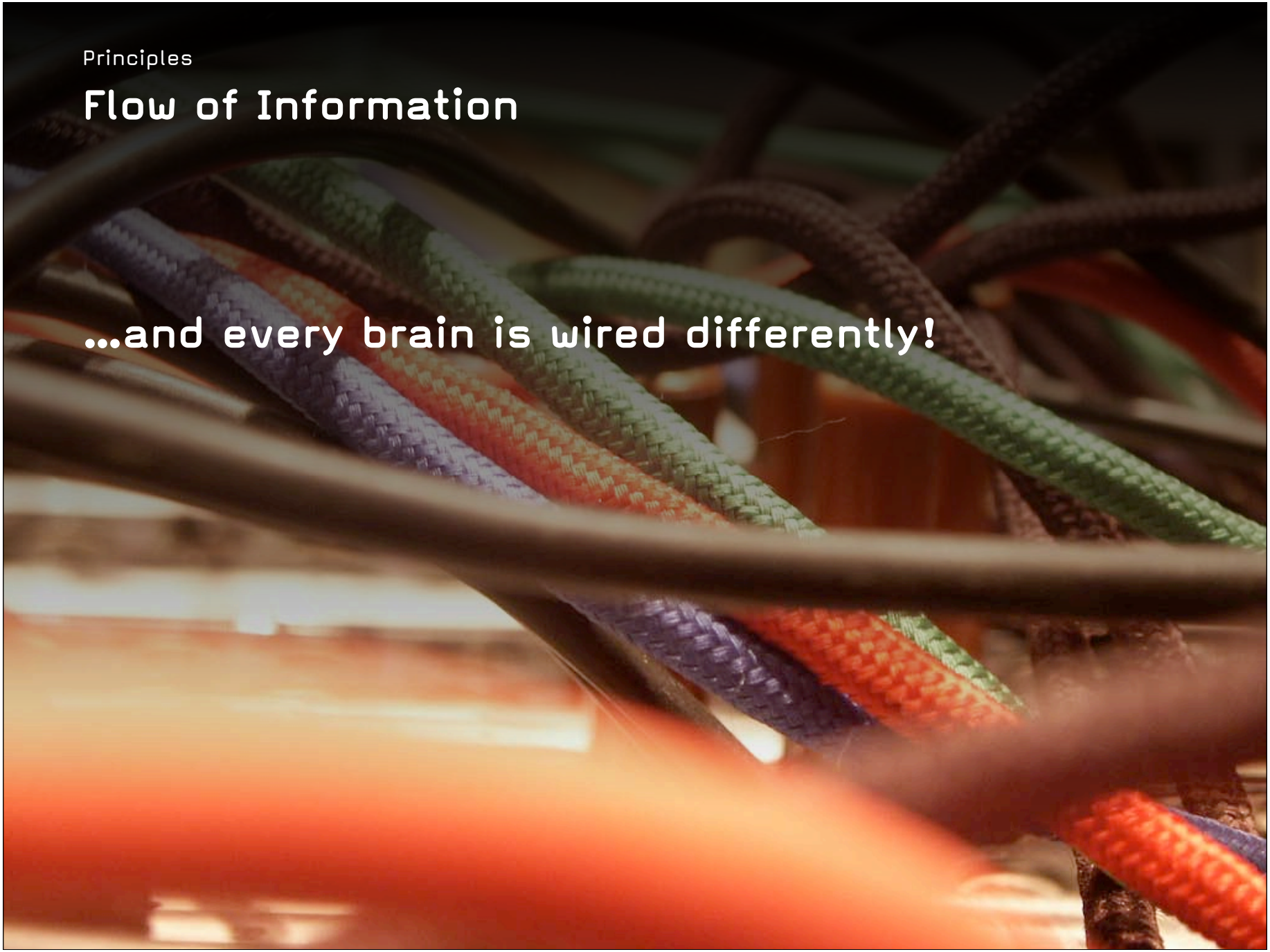


Principles

Flow of Information

But remember that information is a dynamic resource.

- It is constantly changing...


Principles
Flow of Information
...and every brain is wired differently!

Thinking with your Eyes

Overview

- The Review - the Outlook
- From Information to Knowledge
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- Perception - Your Minds Eye

Perception - Your Minds Eye

Experiment 1

How many „F“s can you find in this text?

Perception - Your Minds Eye

Experiment 1

FINISHED FILES ARE
THE RESULT OF YEARS
OF SCIENTIFIC STUDY
COMBINED WITH THE
EXPERIENCE OF YEARS

Perception - Your Minds Eye

Experiment 1

FINISHED FILES ARE
THE RESULT OF YEARS
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Solution: 6

Perception - Your Minds Eye

Experiment 2

Monitor the white team of players by counting the number of passes they made.

Perception - Your Minds Eye

Experiment 2

Monitor the white team of players by counting the number of passes they made.

Solution: 16

Did you see anything out of the ordinary?
- Watch the video again!

Perception - Your Minds Eye

Experiment 3

Are you left or right eye dominant?

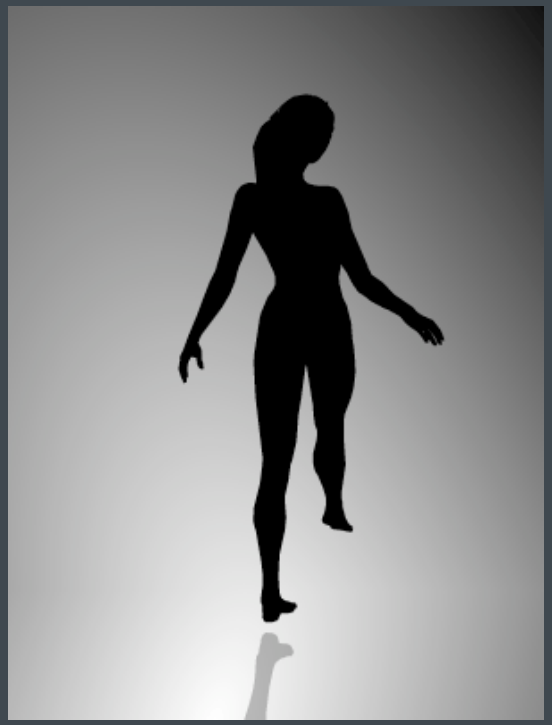
Perception - Your Minds Eye

Experiment 3

Do you see the dancer turning clockwise or anti-clockwise?

Perception - Your Minds Eye

Experiment 3



Perception - Your Minds Eye

Experiment 3

Left Eye dominant

uses logic
detail oriented
facts rule
words and language
present and past
math and science
can comprehend
knowing
acknowledges
order/pattern perception
knows object name
reality based
forms strategies
practical
safe

Anti-Clockwise

If you see the ‚Spinning Lady‘ anti-clockwise, then you use more of the left side of the brain.

Most of us would see the dancer turning anti-clockwise

Perception - Your Minds Eye

Experiment 3

Clockwise

If you see the ‚Spinning Lady‘ clockwise, then you use more of the right side of the brain.

Right Eye dominant

uses feeling
"big picture" oriented
imagination rules
symbols and images
present and future
philosophy & religion
can "get it" (i.e. meaning)
believes
appreciates
spatial perception
knows object function
fantasy based
presents possibilities
impetuous
risk taking

Conclusion

Have you figured out the essence of this lecture?

Conclusion

Have you figured out the essence of this lecture?

We do not see the world as IT IS,
we see the world as WE ARE!

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Podcast Information Architecture

http://www.ia.arch.ethz.ch/teaching/teaching-08/

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Sources

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