

# How to Present (Slides)



TECHNISCHE  
UNIVERSITÄT  
DARMSTADT



**Cryptoplexity**

Cryptography & Complexity Theory  
Technische Universität Darmstadt  
[www.cryptoplexity.de](http://www.cryptoplexity.de)

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Crypto Seminar WS 20/21

Marc Fischlin

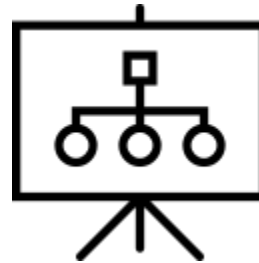
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Voice

Slides

(more)



Interaction

Facilities

Appearance

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**Presentation = visual + auditory + ....**

(Slides)

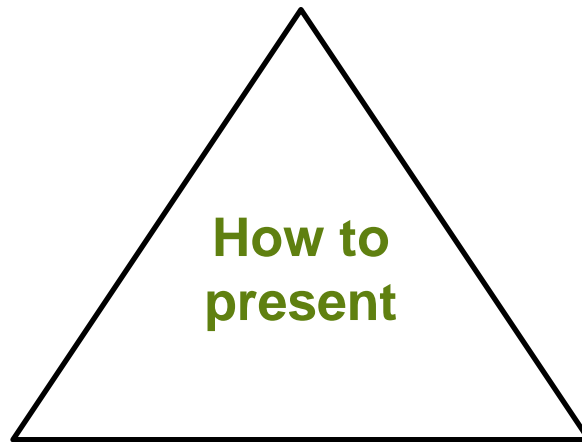
(Oral)

Slides are not meant to stand alone and replace document

techniques:  
experiences, stories,...

# Pathos

Passion & Emotion



# Ethos

Credibility & Trust

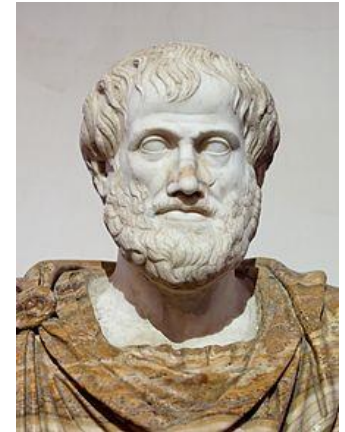
techniques:  
confidence, endorsements,...

# Logos

Logic & Reason

techniques:  
structuring, references,...

Source: Wikipedia



Aristoteles  
(384BC-322BC)

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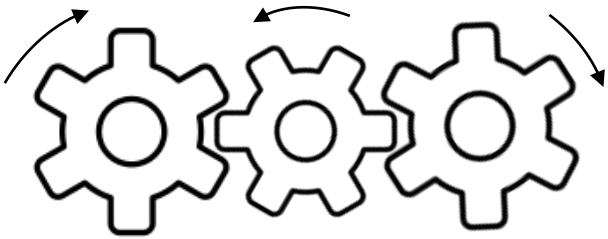
# **Text on Slides?**

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**Visual**

**vs.**

**Auditory**



**pictures**

are good to show  
relationships, connections, ...

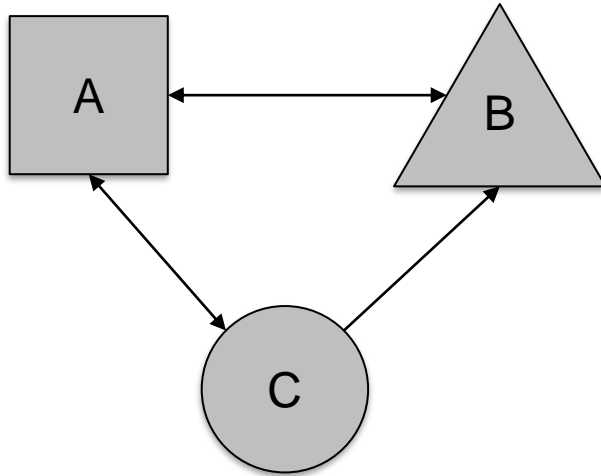
**Text**

**writing/speach**

is good to  
argue, evaluate, ...

# Example

taken from [Chris Atherton, Visual attention: A psychologist's perspective](#)



A has a reciprocal relationship with B and C.

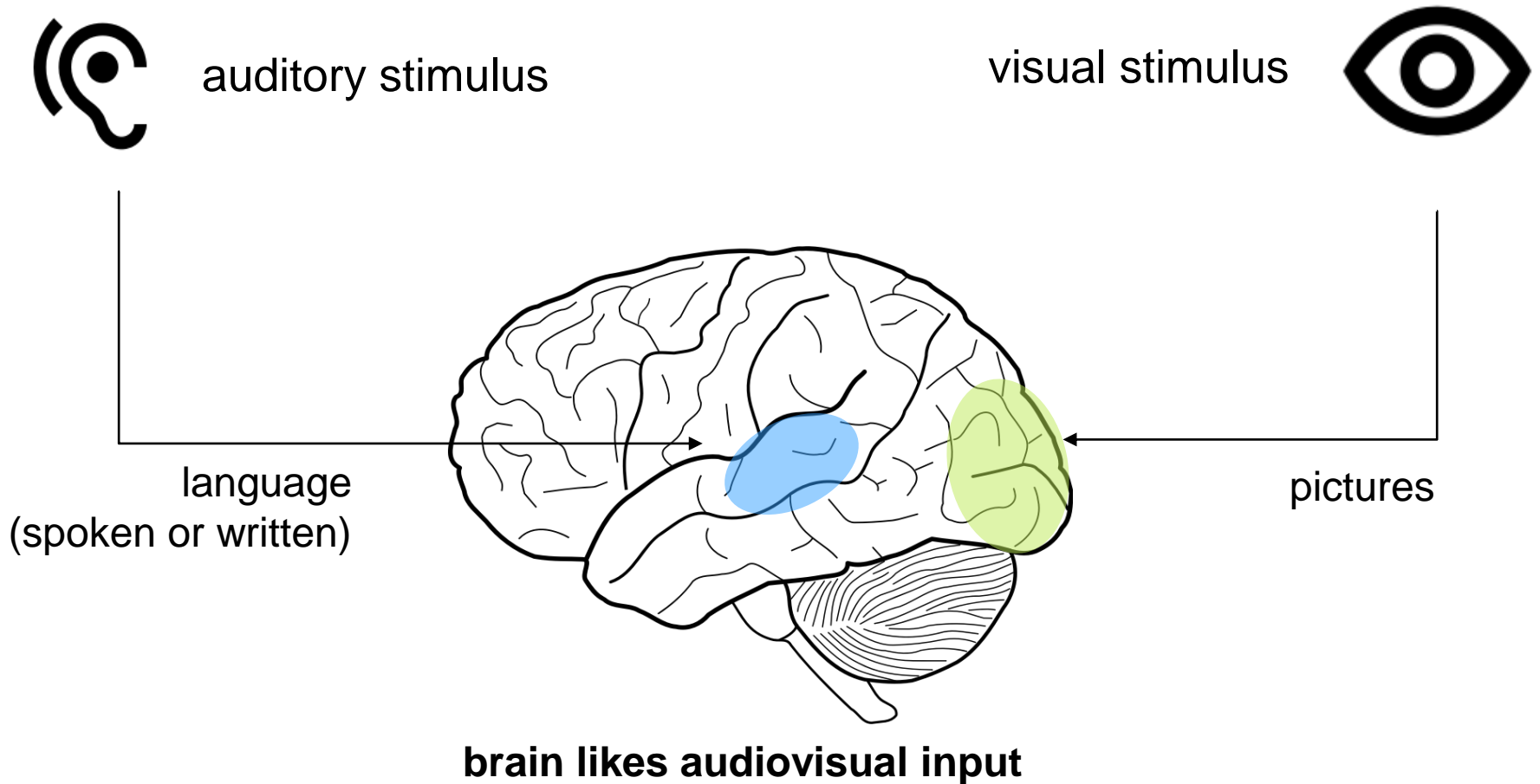
B has a reciprocal relationship with A but only receives from C.

C has a reciprocal relationship with A but not with B, to which it only sends.

**extraneous cognitive load**

# Stimulus

taken from [Chris Atherton, Visual attention: ...](#)



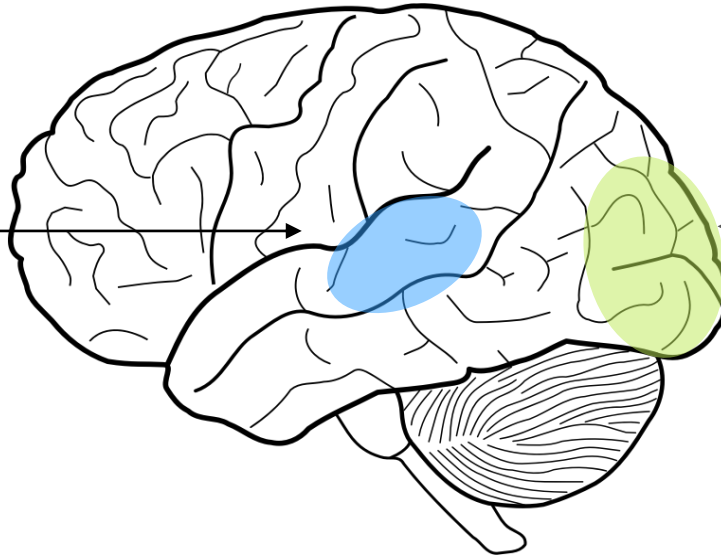




This is a very long text,  
put on a slide to indicate that the  
auditory cortex is overloaded,  
whereas the visual cortex has  
nothing to do. The result is that  
the learner needs to decide to  
read or listen.



**overloaded**



**bored**


# Less is More

taken from [Chris Atherton, Visual attention:...](#)

## traditional slides

**The spacing effect**

- Ebbinghaus (1885): spacing out periods of learning improves later recall of the information
  - Obvious implications for revision!
  - Start revising now!

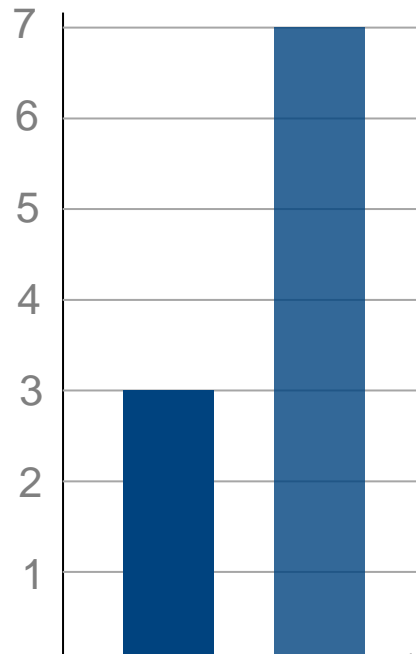


- When spacing is very short, people do better on immediate testing, but worse when tested later on
  - Cramming might be better than nothing!

worse learning results

## same spoken text

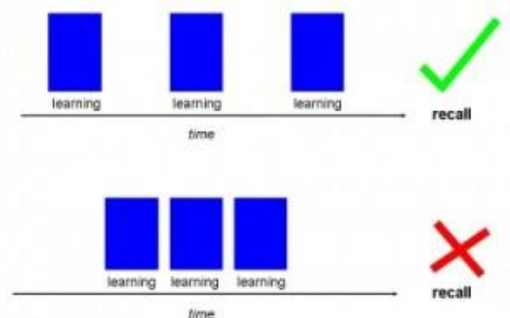
no. recalled topics



traditional sparse

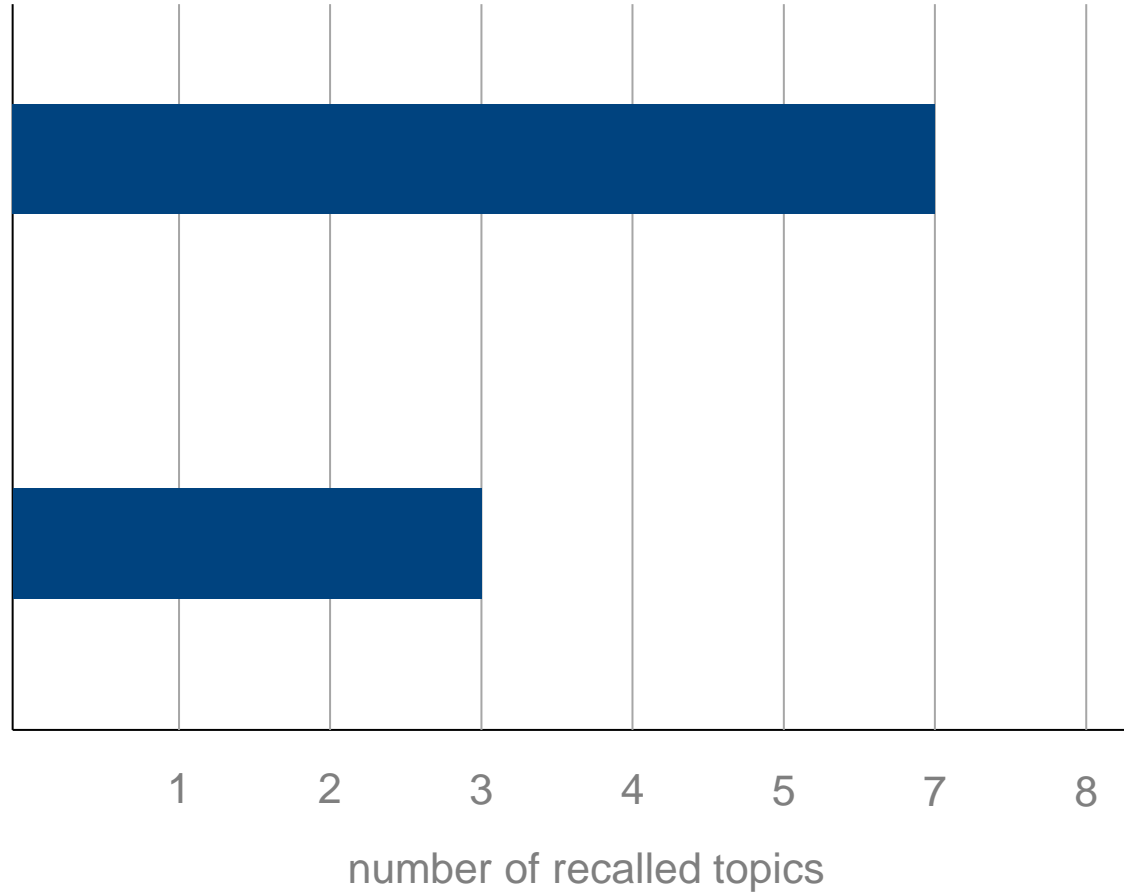
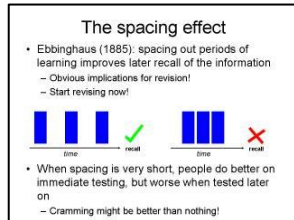
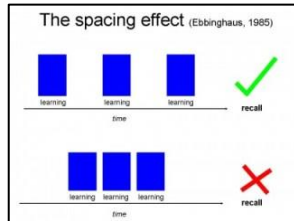
## sparse slides

**The spacing effect (Ebbinghaus, 1985)**



better learning results

# Learning Effect depends on Slide Style



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## Slides: **Dos** and **Don'ts**

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# Slide Style: (general) Dos

large font

sans-serif

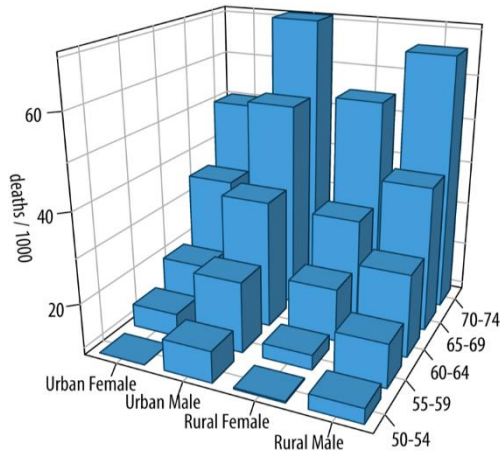
light background, dark text color

use text sparsely

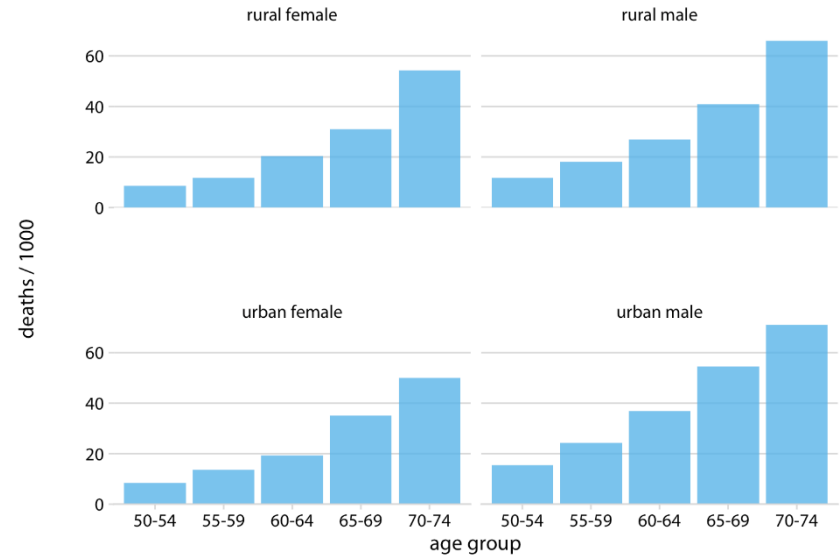
split.....slides

# Slide Style: (cognitive load) Dos

reduce extraneous cognitive load



VS.



Source: [Claus O. Wilke: Fundamentals of Data Visualization](#)

# Slide Style: Do or Don't?

Distracting information in footer?

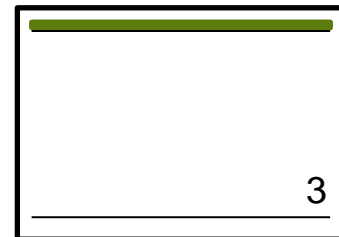
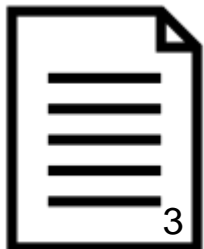
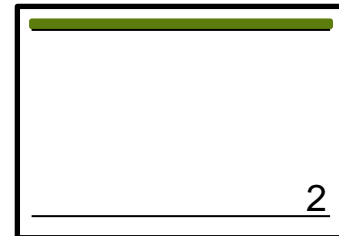
# Paper to Slides: Don't

paper

presentation

skip & skim

more details



inherently  
sequential

nonverbal  
communication  
(visual, vocal,  
animations,...)

interactions

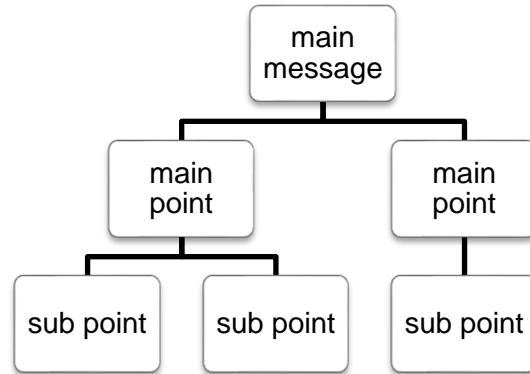
focus on  
few aspects



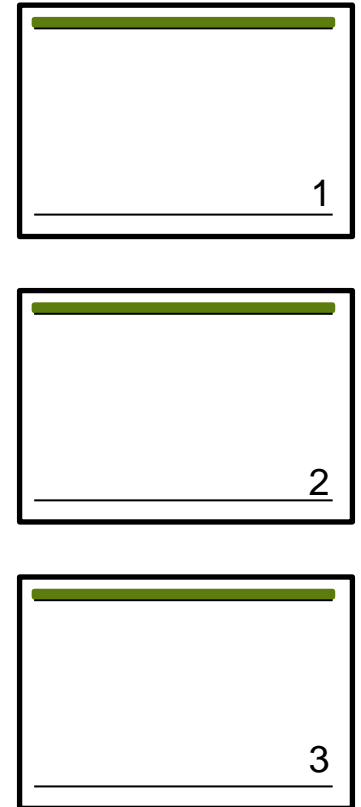
# Paper to Slides: Dos



distill  
→



set up  
→



# The Overview Slides: **Don'ts**

A slide with a green header bar and a black border. It contains a table of contents with four items: Introduction, Main Result, Extension, and Conclusion. A horizontal line is drawn below the Conclusion item, and the number '1' is in the bottom right corner.

- Introduction
- Main Result
- Extension
- Conclusion

1

**redundant**

or

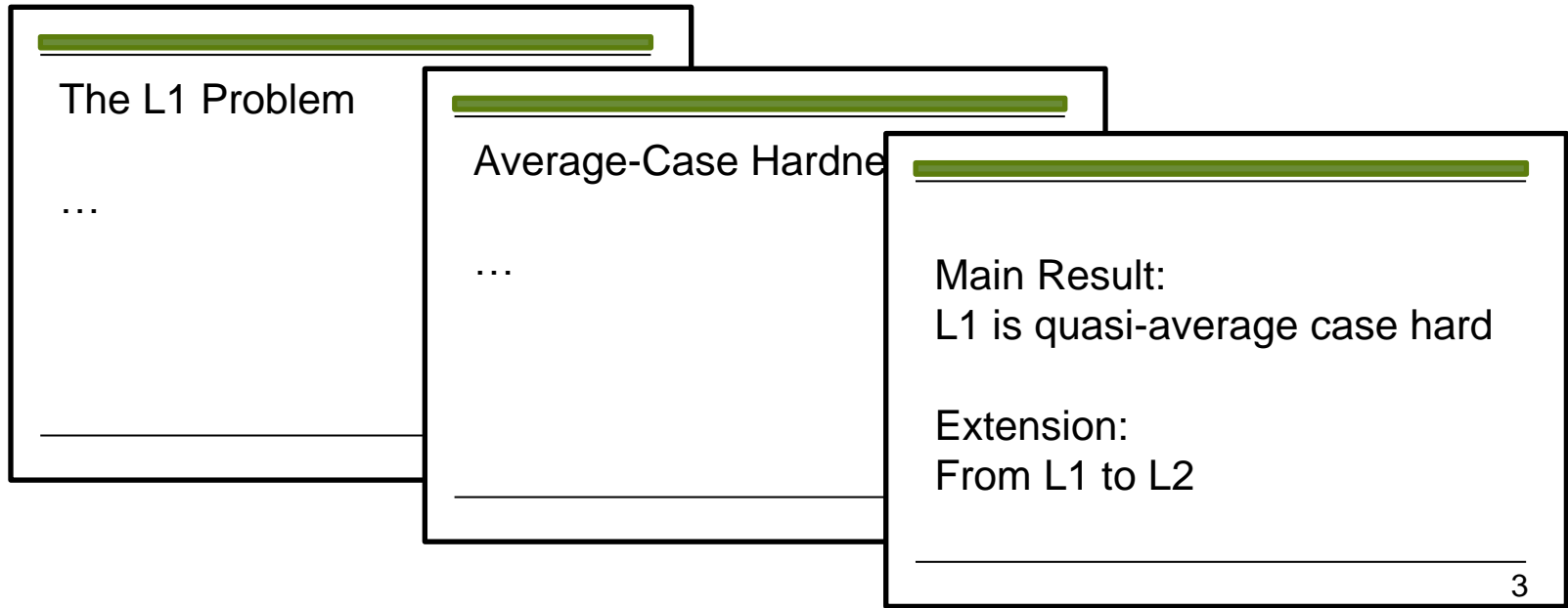
A slide with a green header bar and a black border. It contains a table of contents with four items: Introduction, Main Result: L1 is quasi-average case hard, Extension: From L1 to L2, and Conclusion. A horizontal line is drawn below the Conclusion item, and the number '1' is in the bottom right corner.

- Introduction
- Main Result:  
L1 is quasi-average case hard
- Extension: From L1 to L2
- Conclusion

1

**incomprehensible**

# The Overview Slides: Dos



**1-3 slides introduction**

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## Bullet Points: Don'ts

- A bullet is a projectile and a component of firearm ammunition that is expelled from a gun barrel during shooting.
- The term is from Middle French and originated as the diminutive of the word *bouille* (*bouillet*), which means "small ball".
- Bullets are made of a variety of materials such as copper, lead, steel, polymer, rubber and even wax.
- They are available either singly, as in muzzle-loading and cap and ball firearms, or as components of paper cartridges, but much more commonly in the form of metallic cartridges.

Source: <https://en.wikipedia.org/wiki/Bullet>

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## Bullet Points: Dos (if necessary)

- use sparsely less than 1 out of 5 slides
- succinct phrases avoid full sentences
- avoid line breaks at most 6-9 words
- limit number of items at most 5 points
- only for coequal items no inference

Try to do without bullet points!

# Copyright: Don't

§60a Urheberrechtsgesetz:

Can use parts of other works  
for illustration purposes  
at educational institutions  
for restricted audience

[Copyright in Science](#) (in German)

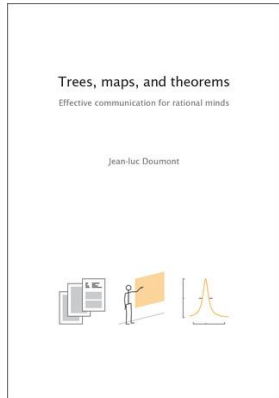


Your  
favorite  
cartoon  
character  
here

Example: Image of Minions not admissible,  
unless presentation is about, say, cultural impact of Minions

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# Literature



# Trees, maps, and theorems

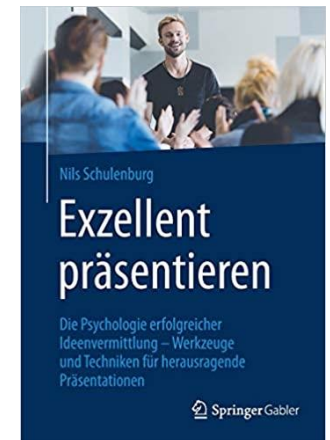
## Jean-Luc Doumont

### Principiae, 2009

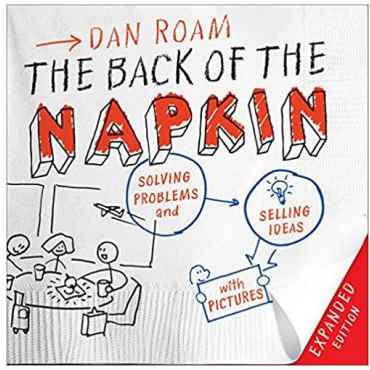
# Exzellent präsentieren

## Nils Schulenburg

### Springer Gabler, 2017







# The Back of the Napkin

Dan Roam  
2009

Blah blah blah  
Dan Roam  
Marshall Cavendish International, 2012

