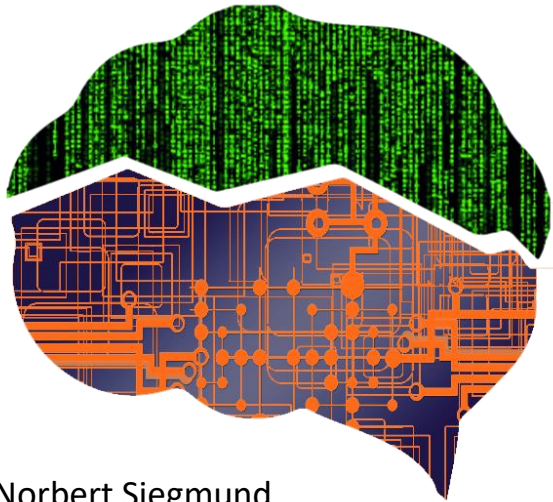


Deep Learning for Code Generation

How to Present!



Prof. Dr.-Ing. Norbert Siegmund

Intelligent Software Systems

Slides based on material by Graham Horton, Christian Kästner

Bauhaus-Universität
Weimar

Introduction

- "A presentation is the process of presenting a topic to an audience. It is typically a demonstration, introduction, lecture, or speech meant to inform, persuade, inspire, motivate, or to build good will or to present a new idea or product.
- The term can also be used for a formal or ritualized introduction or offering, as with the presentation of a debutante. Presentations in certain formats are also known as keynote[2] address."
- "A presentation program is often used to generate the presentation content, some of which also allow presentations to be developed collaboratively, e.g. using the Internet by geographically disparate collaborators. Presentation viewers can be used to combine content from different sources into one presentation."
- At conferences, the time limit is usually between 15 and 20 minutes. Invited papers can be longer. In school, a presentation is a certificate of performance to rate the performance of a student.
- There can be presentations in a written format that describe a longer publication

• (Wikipedia, 2018)

Plan the presentation



Presentation style

- important
- Depend on situation
- Presenter decides about style
- do NOT tire the audience
- Should be good

What happend?

This is how you should NOT do it!

Preparation

- Prepare for a talk!
- Preparation takes time (20x time of actual presentation)
- Do not prepare slides the evening before!

How to prepare a presentation

- **Preparation** is the single most important part of making a successful presentation!
- Consider the following for preparation:
 - The Subject
 - The Audience
 - The Place
 - The Time
 - Length of Talk



Fear of Speaking



How to overcome fear of speaking

- Practice out loud and verbalize your complete presentation
- Stop seeing your presentation as a performance
- Pause frequently
- Use the **AWARE** method to overcome panic attacks:
 - **A**cknowledge & Accept
 - **W**ait & Watch (and maybe, Work)
 - **A**ctions (to make myself more comfortable)
 - **R**epeat
 - **E**nd



Prepare for a very large Room



Workshop Room



What makes a Successful Presentation?

- **Facts**
 - Content
 - Structure
 - Cohesion / line of thoughts
- **Visuals**
 - Design of slides
 - Visualizations
- **Appearance**
 - Body language
 - Language
 - Subjective impression

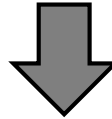
Structure

Goals

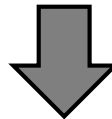
- Every presentation has a goal
- Every presentation has several tasks
- Answer these questions first:
 - What is my goal?
 - What is my main point?
 - Why should the audience listen?
 - Why is the topic interesting?
 - Who will benefit from this presentation?

Structure

Beginning: Connect to audience



Middle: Convey information



End: Take home message

Structure

- Beginning: Connect to audience
 - Introduce yourself
 - Motivate your topic (why should they listen?)
 - Executive summary (main points, main results)
 - (Calm down)
- Middle: Convey information
 - Facts, Arguments, Results, Discussion
- End: Take home message
 - Summarize main points
 - Emphasize consequences
 - Future work

Beginning

- What is the general problem?
- Why is this problem interesting?
- What is the specific problem?
- Why is this problem interesting?
- Which question(s) to answer?
- (State of the art)
- How to proceed and why?
- Goals and tasks?

Middle

- What background knowledge is necessary?
- Which problems need to be solved?
- Which decisions to make?
- Which assumptions/simplifications and why?
- Experiments
- Results
- Interpretation
- Does this answer my hypothesis?

End

- What was the main result?
- How general are these results? (threats to validity)
- What are the consequences?
- What remains open? Which new questions arose? Future work?
- Thank for attention

Typical problems

- Too quick introduction
- Motivation is missing or too late
 - Hint: Motivate before you show your outline
- Problem remains unclear
- Consequences / results unclear
- Too much “what I did”
- Too little “why did I do this (each step)”
- Too little “what’s the point”
- No connection between thoughts / slides
- Missing cohesion

Slides

Technical Hints

- 20 min, about 7 to 15 slides
- Fontsize ≥ 18 , sans-serif fonts (this is 24)
- Name, title (and affiliation) on every slide
- Slides number on every slide
- At most one topic per slide
- Visualization, colors where necessary
- Avoid overfull slides (> 7 objects or > 36 words)
- Avoid full sentences, instead summarize content using headwords.

Structure slide?

- **Only** if you have something to say
- Maybe only after motivation slides

Agenda

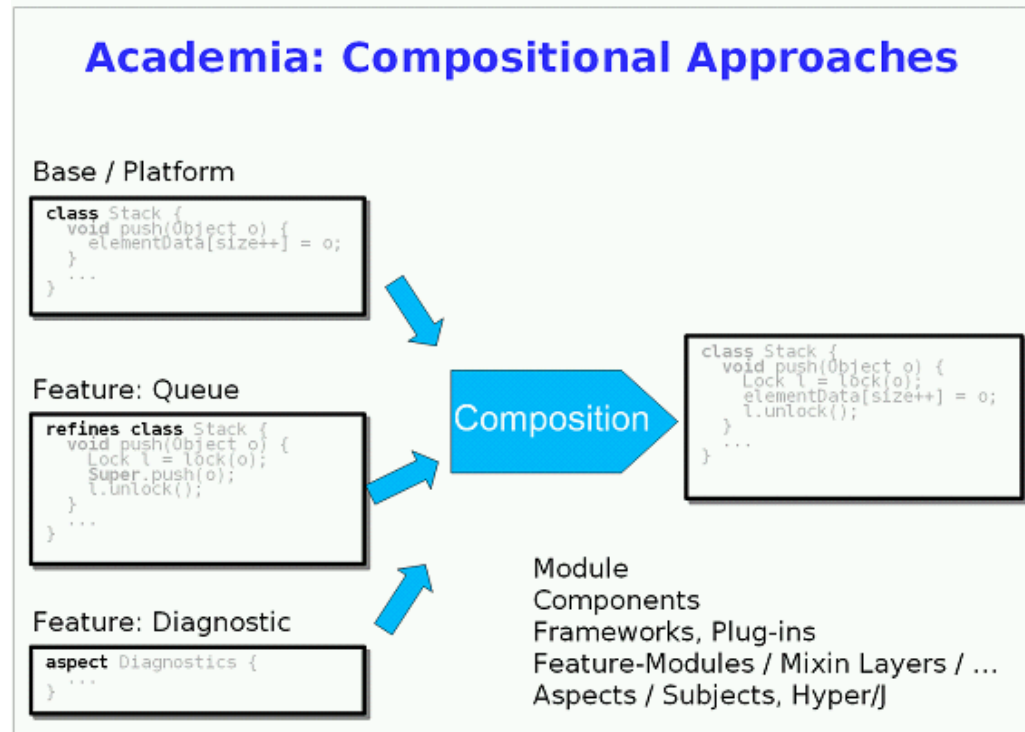
- Problems and Advantages of Preprocessors
- 4 Improvements
 - Views
 - Visual Representation
 - Disciplined Annotations
 - Product-Line-Aware Type System
- Summary and Perspective

Visualizations

- Assists memory
 - Assists comprehension
 - Emphasizes the content
 - More accessible style
-
- If
 - Meaning is clear
 - Visualized content is correct
 - Text is readable

Christian Kästner: Virtual Separation of Concerns

5

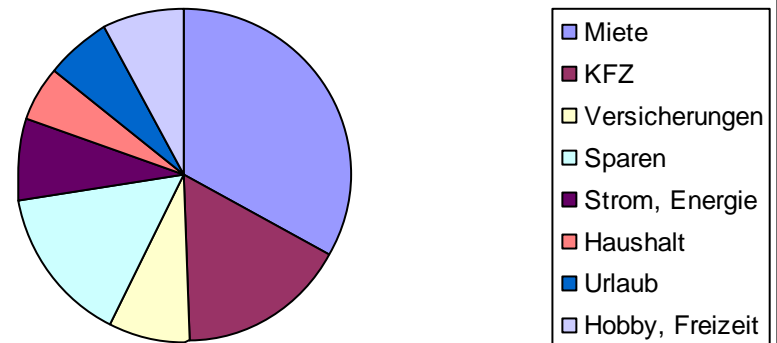


Different kinds of visualizations

- Diagrams
- Photos
- Clip-arts
- ...



Private Ausgaben



Christian Kästner: Virtual Separation of Concerns

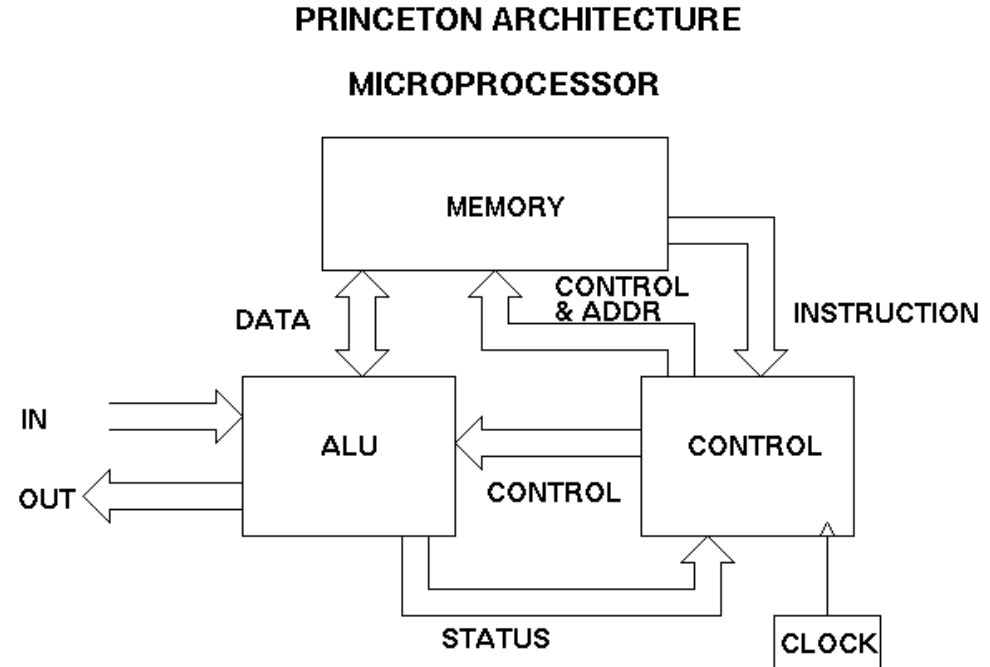
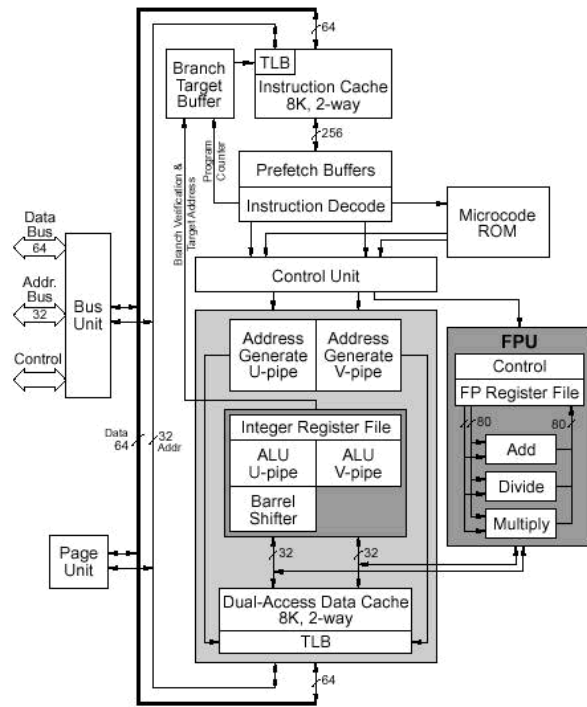
9

Preprocessor in Femto OS



Simplify visualizations

- A microprocessor consists of X, Y and Z...



Animation

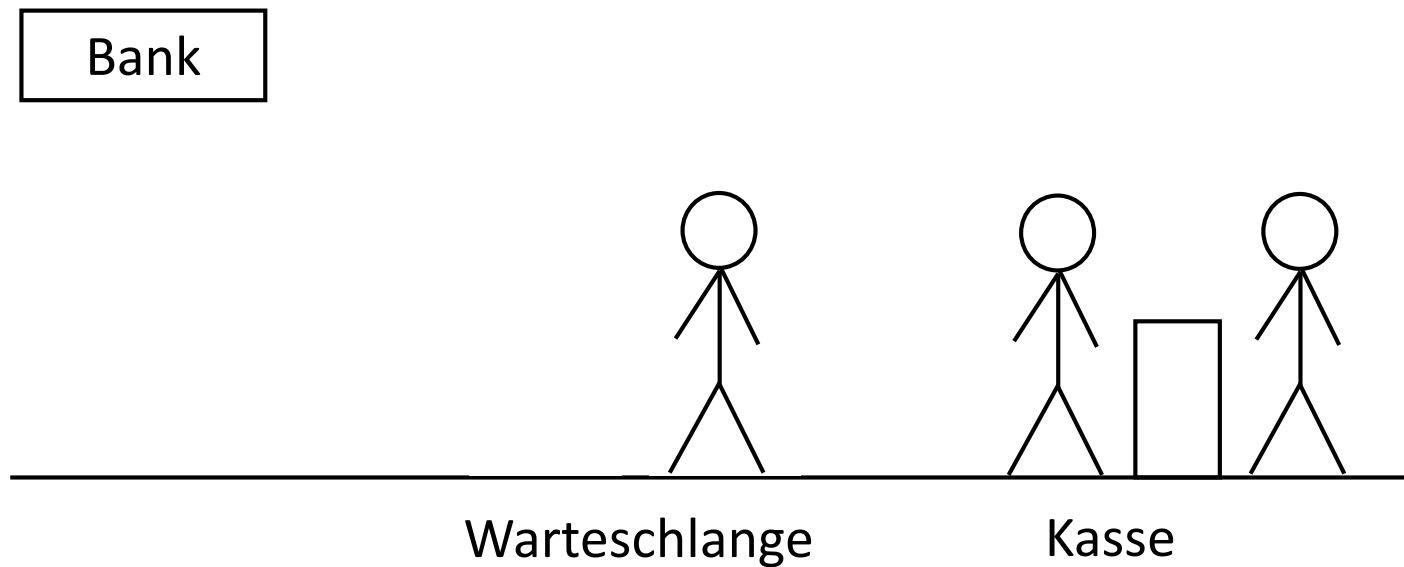
- Use animation with care
- Use
 - to focus attention (~ laser pointer)
 - to visualize a process / several steps
- Do not use without specific purpose

Animation: Die Todsünde

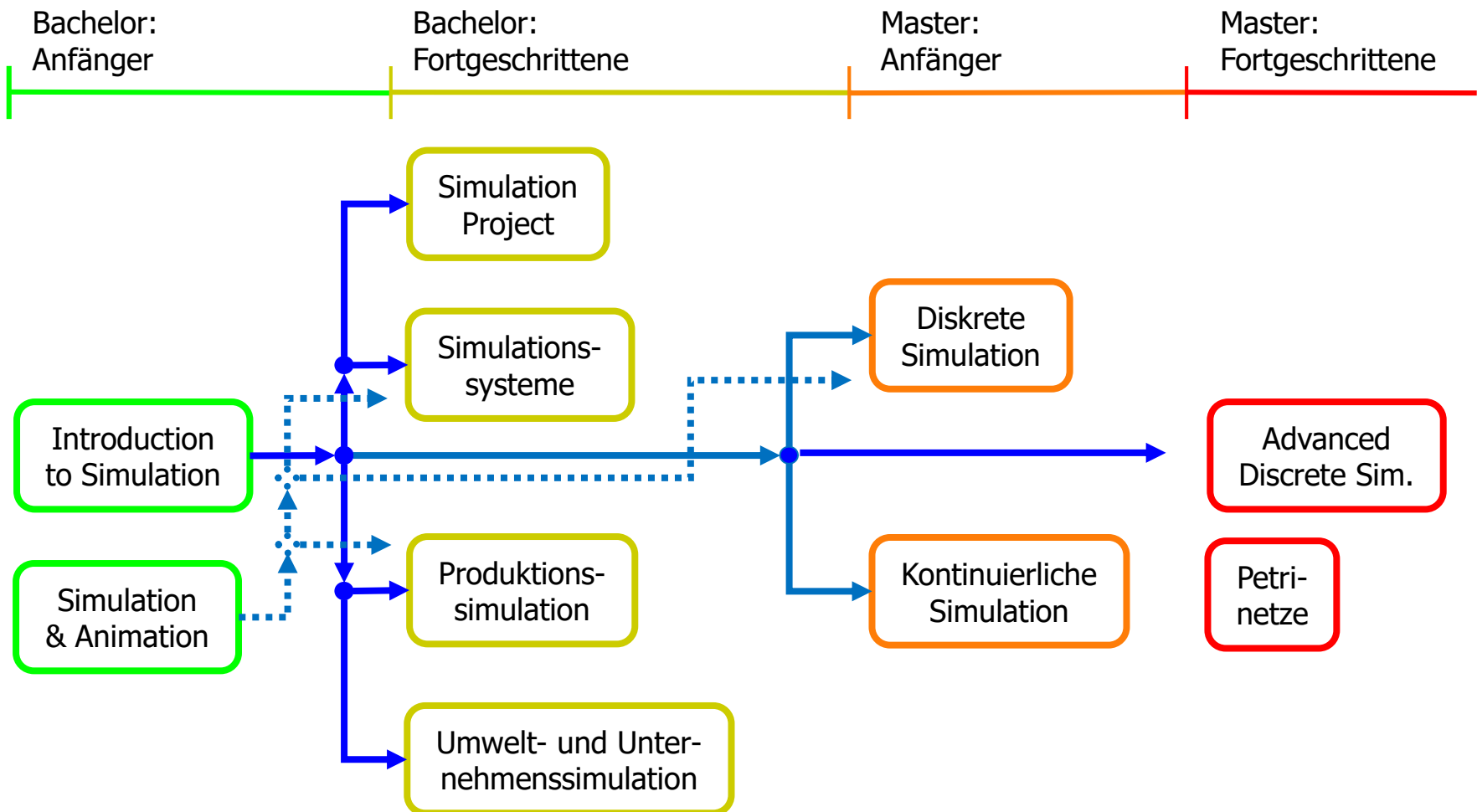
- Punkt 1 Blah blah blah blah blah
 - Punkt 1-1 Blah blah blah blah blah
 - Punkt 1-2 Blah blah blah blah blah
- Punkt 2 Blah blah blah blah blah
 - Punkt 2-1 Blah blah blah blah blah
 - Punkt 2-2 Blah blah blah blah blah
- Punkt 3 Blah blah blah blah blah

Abläufe visualisieren

- Erklärung eines Warteschlangensystems:



Aufmerksamkeit lenken



Checklist for visualizations

- Can text be replaced by visualizations?
- Is the meaning clear?
- Are the facts correct?
- All texts and details readable?
- No unnecessary or misleading elements?
- Does it help comprehension?

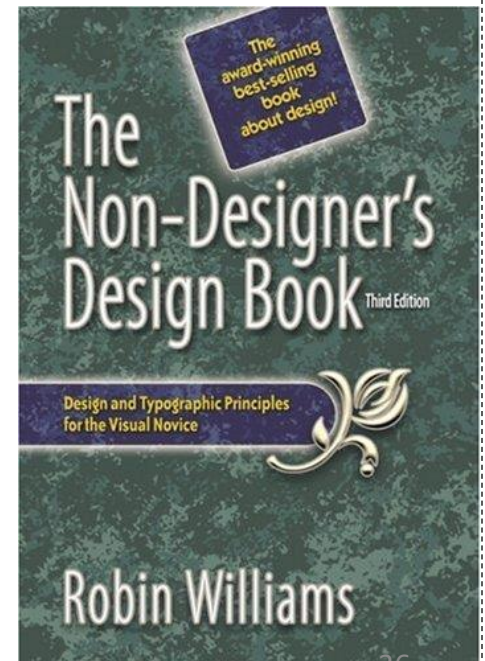
design.

**I start with an
empty slide.**

(don't be scared of white space)

slide numbers?
university logo?

contrast
repetition
alignment
proximity

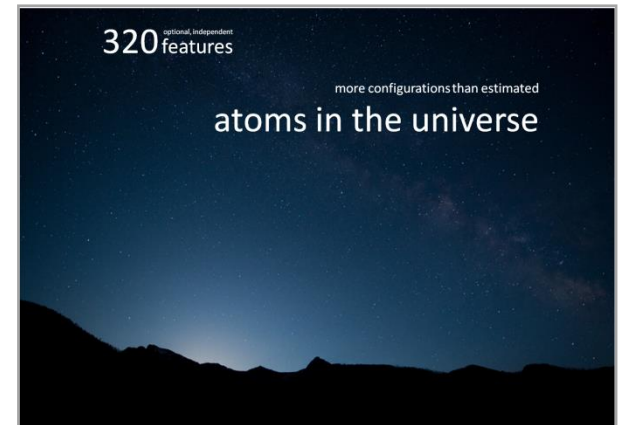


contrast.

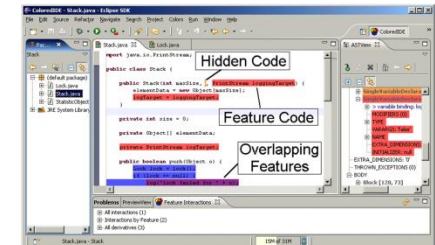
color, typeface
make differences strong (e.g., 36 vs 80)

alignment.

align along few strong lines
avoid center alignment



My History



Disciplined annotations; enables analysis; type system [KICSE'08, ASE'08, TOSEM'11]

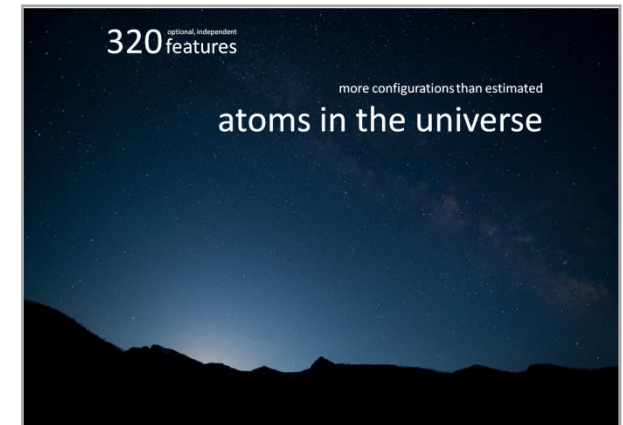
Evaluation Subjects

in my PhD thesis

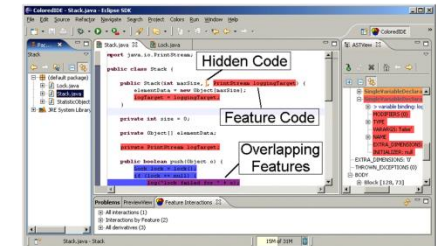
Subject	Lines of Code	Features
AHEAD	17000	14
Arithmetic Expression Evaluator	460	25
BerkeleyDB	84000	42
FAME DBMS	5000	14
Functional Graph Library	2600	18
Graph Product Line	1350	18
Lampiro	45000	11
MobileMedia	5700	14
MobileRSSReader	20000	14
Prevayler	8000	5
Pynche	2400	12
SQL Parser	60	4
WaterBoiler	10000	14

alignment.

align along few strong lines
avoid center alignment



My History



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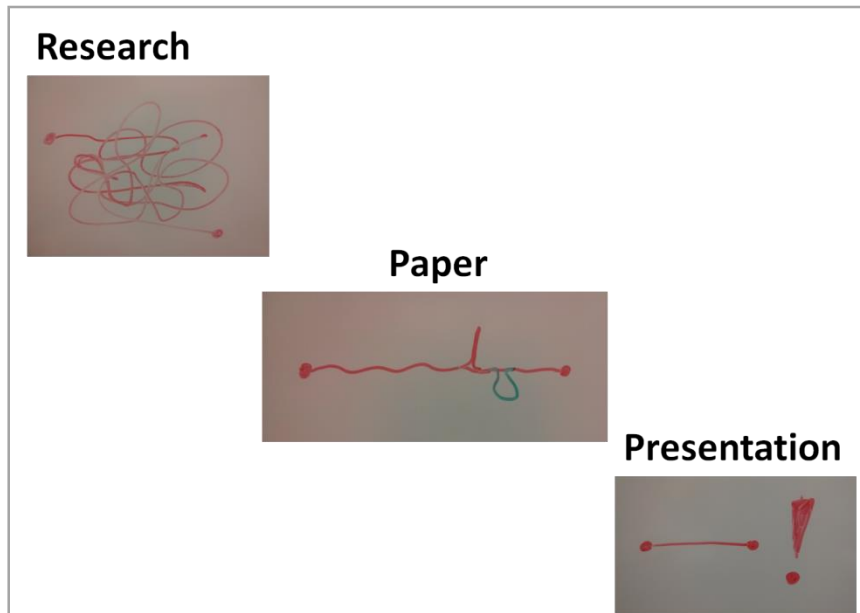
Evaluation Subjects

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Subject	Lines of Code	Features
AHEAD	17000	14
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Lampiro	45000	11
MobileMedia	5700	14
MobileRSSReader	20000	14
Prevayler	8000	5
Pynche	2400	12
SQL Parser	60	4
WaterBoiler	10000	14

proximity.

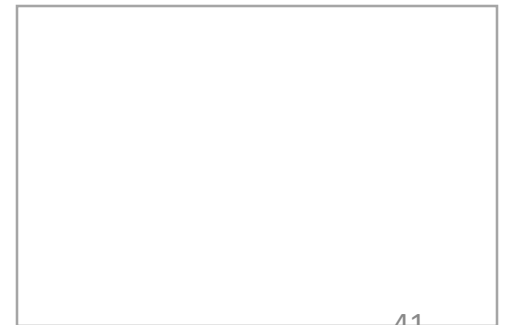
physical closeness implies a relationship
embrace white space, but do not trap it



repetition.

consistent look

repeat design ideas



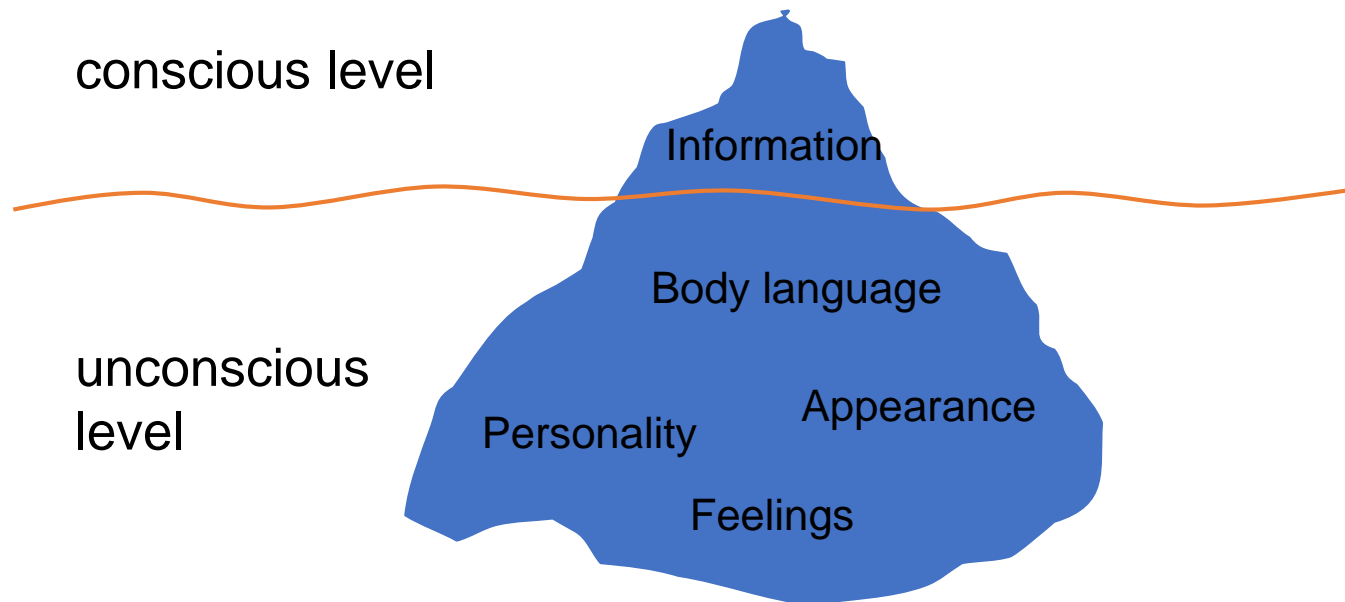
More on design

- <https://speakerdeck.com/mseckington/the-art-of-slide-design>

Presentation

Communication

- *You cannot not communicate*



Where to stand

- Facing the audience
- Not too far away
- Don't hide the projected image
- Don't hide behind furniture



Posture

- Upright
- Open
- Relaxed
- Stable



Movement

- Don't fidget
- Emphasize thoughts with gestures and facial expressions
- Calm, but not fixed



Eyes

- Look at the audience and make eye contact (yes, really!)
- Try to look at everybody **naturally**
- Do not stare at screen/window/corner/floor



Voice / Language

- Slow and loud enough (not too fast or too quietly)
- Clear pronunciation
- Enough pauses
- Avoid monotony (modulate your tone)

- Keep sentences simple
- Don't read your talk!
- Avoid unfamiliar words, abbreviations, or parasites ("um, er")
- Avoid empty phrases, such as "I have to say, ..."

Timing

- Practice timing
- If faster when nervous plan ahead
- Have a timer during presentation
- Check speed during presentation
- Practice fast and slow version of last 3 slides (maybe have an extra slide you might skip)

Some Last Tips

- Always be prepared
 - Have a PDF version of your slides
 - On at least 2 USB sticks & internet
 - Prepare presentation before the session, usually only one laptop
- Laser pointer hard to see in large rooms -> animations instead
- Practice timing and phrasing!



VISUALIZATION

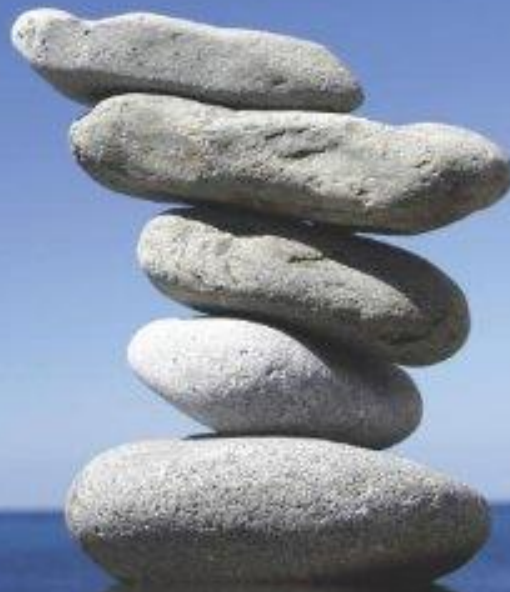
Unless you have a clear picture of your goal, you will never fully appreciate just how badly you failed to measure up.

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FOREWORD BY GUY KAWASAKI

presentationzen

Simple Ideas on Presentation Design and Delivery



Garr Reynolds

New
Riders

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VOICES THAT MATTER™

The
award-winning
best-selling
book
about design!

The Non-Designer's Design Book

Third Edition

Design and Typographic Principles
for the Visual Novice



Robin Williams