

Presentation Tips

Release Engineering for Machine Learning Applications
(REMLA, CS4295)



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Giving a good talk is hard:
practice makes perfect.

The Purpose of your Talk

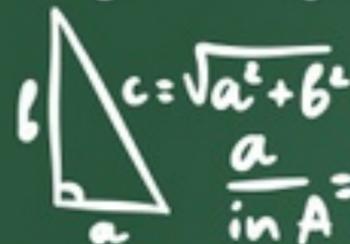
$x \neq 1 \quad \sum = n^2 + 3n - 2 \quad Z \sqrt{R^2 + (a - \frac{1}{wc})}$

$a^3 + b^3 = (a+b)(a^2 - ab + b^2)$

$\frac{\sqrt{2}}{5} + 4 = y \quad \ln 1 = 0 \quad f(x) = \begin{cases} \sqrt{x-1} \\ \sqrt{x} \end{cases}$

$\pi = 3.14 \quad \log_a y \quad \log_a x \quad a^{\sin a} \quad k \cos kx \quad k \log a \quad y = 2x \sqrt{\frac{4}{\pi}}$

$\sqrt{x} a^2 - b^2 = (a+b)(a-b) \quad n = \frac{c}{r}$


 $c = \sqrt{a^2 + b^2}$


 $\frac{a}{\sin A} = \frac{b}{\sin B}$

$P = 2a + 2b \quad S = 180(n-2)^\circ$

$V = \frac{4}{3} \pi r^3 \quad f(x) dx \quad y = \frac{1}{x} \quad \log_a x \quad \frac{1}{2} d_1 d_2 r^2 = \frac{4\pi}{r} \quad \sqrt{a} = a^{\frac{1}{2}}$


 $V = \frac{1}{3} lwh \quad \sum = n^2 + 3n - 3$

$\tan(a+b) \quad V = \pi r^2 h \quad \int \frac{1}{x} dx = \ln|x| + C \quad \log_a y \quad \tan 2A = \frac{2 \tan A}{1 - \tan^2 A}$


 $a^p b^p = (ab)^p \quad \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$\log_a x \quad \int \sinh x dx = \cosh x + C$


 $\int_0^1 0 dx = C$

$\sum_{h=1}^{\infty} \frac{1}{(2h-1)(2h+1)} > 0$

$\cos^2 A + \sin^2 A = 1 \quad \log$

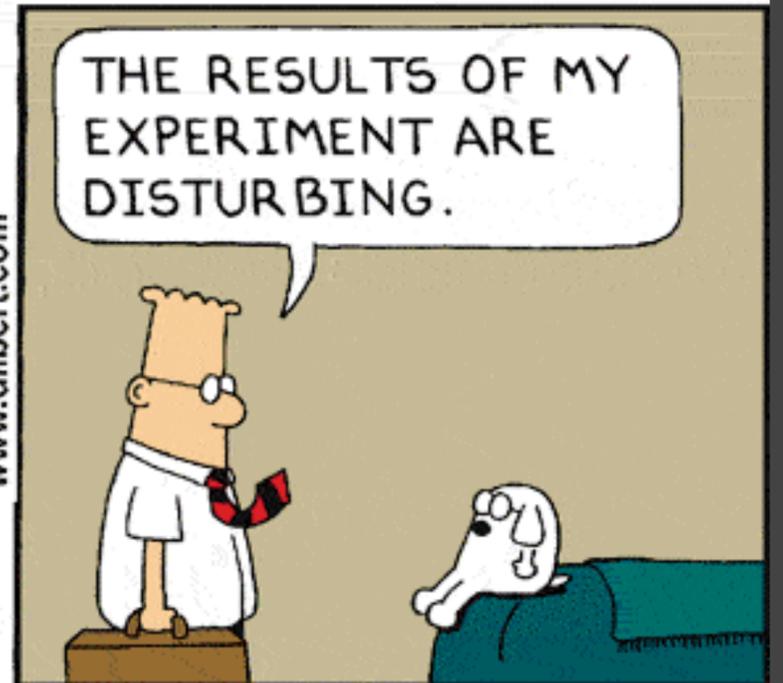
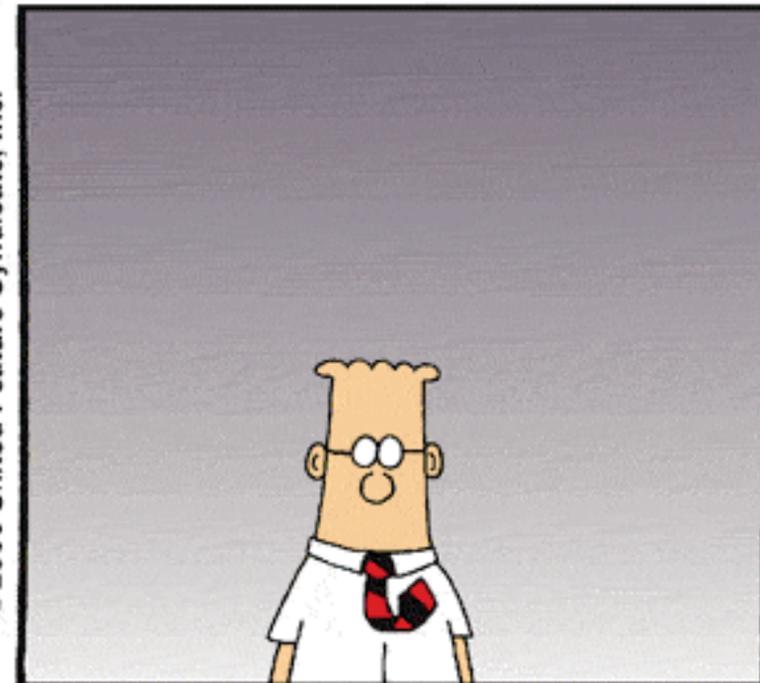
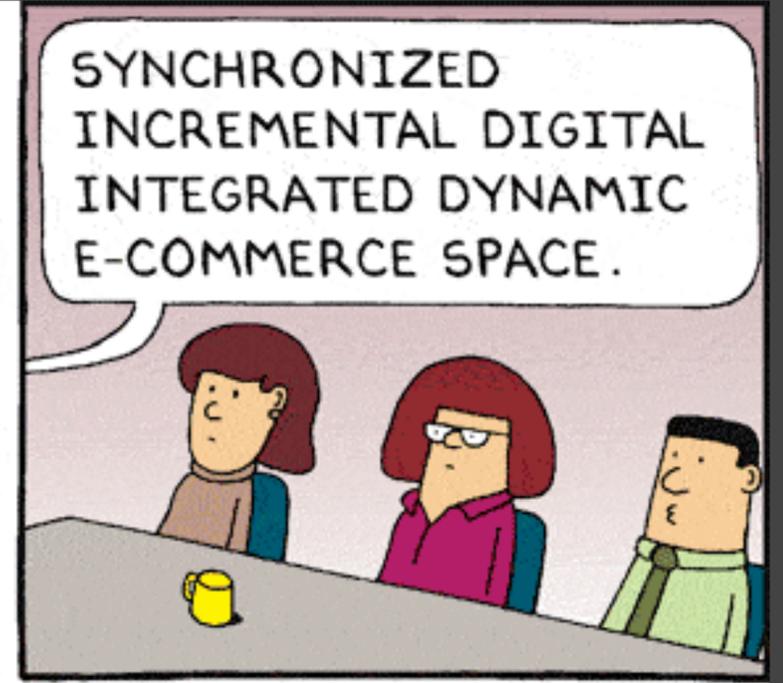
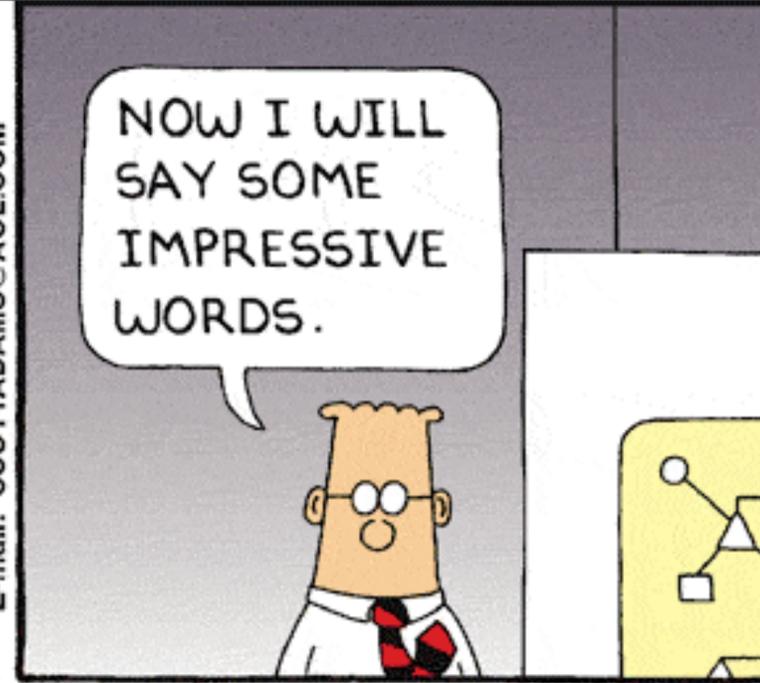
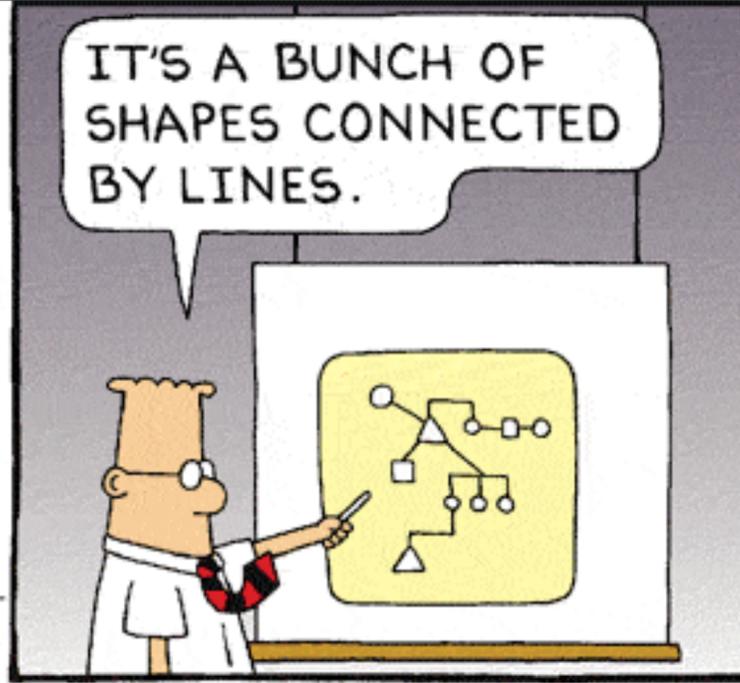
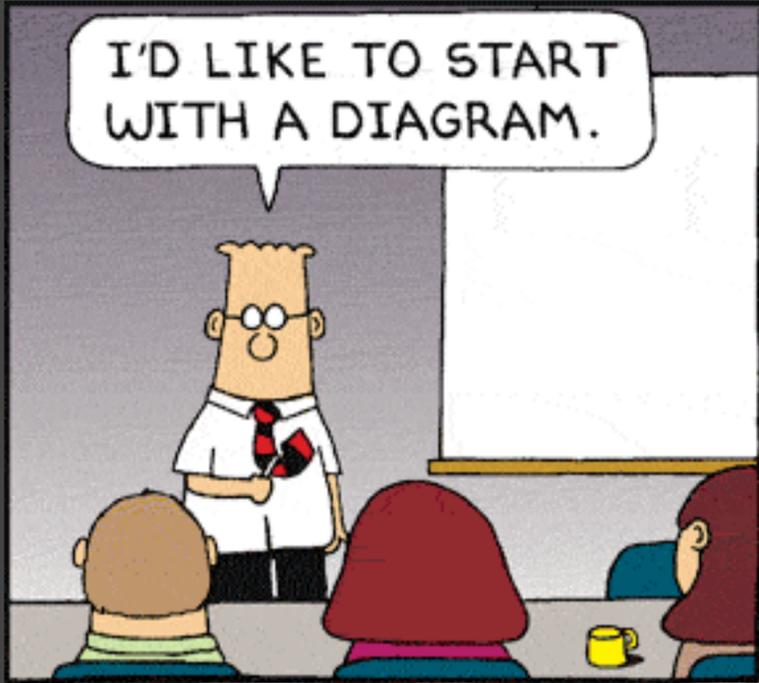
designed by freepik

The Purpose of your Talk

- Make the audience read your paper (and talk about it).
- Give them an intuitive feel for your idea.
- Engage, excite, provoke them.
- Make them glad they came.

Ask yourself:

If someone remembers **one thing** from my talk, what should it be?



Organising your talk

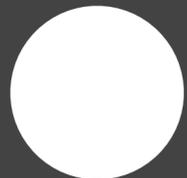
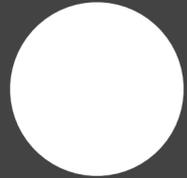
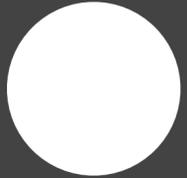
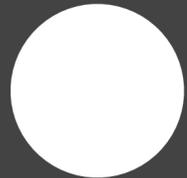
- Motivation.
- Solution (including failures).
- Results.
- Conclusion.

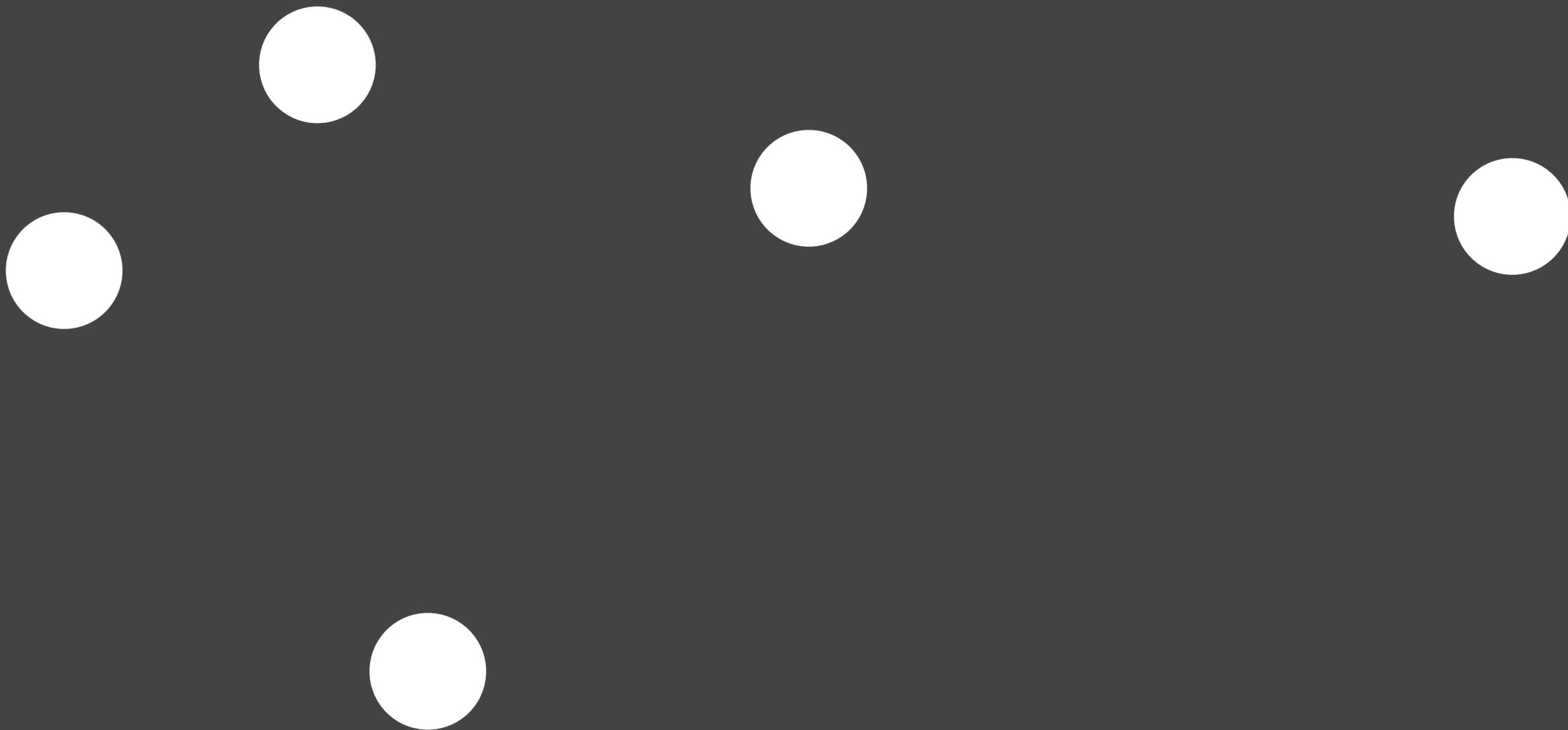
Slide Contents

- Concentrate on the bare necessities (e.g. at most 5 bullets per slide).
- Do not present full sentences on a slide, because these are far too long and hard to read; also, they may tempt you in reading them loud.
- Highlight **keywords**.
- **Use images** that somehow relate to the content.



Example





What was the difference?



Maths

- Avoid maths.
- Formulas are for papers, not slides.
- Few people can read + understand complex formulae in 30 seconds.
- Demonstrate that the formal foundation can be presented on demand.

Examples

- Examples are more important than maths.
- Have **one example** throughout your talk to **illustrate the key idea**.
- Use additional examples for specifics.
- Your audience will get excited by the example – and will want to make questions or read more about your work.

Diagrams

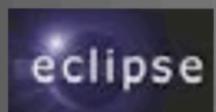
- Always prefer **diagrams over text**.
- Use **simple, clear** diagrams.
- Convey exactly **one message** per diagram.
- **Explain** the diagram to the audience.
- **Estimate the time** someone needs to process the diagram.

```
<?xml version="1.0" encoding="UTF-8" >
<defects version="3.0" >
<package org.eclipse.core.runtime >
  <counts>
    <count id="pre" value="16" max="16" >
    <count id="post" value="1" max="1" >
  </counts>
</package>
<component name="Plugin.java">
  <count id="pre" value="5" max="5" >
  <count id="post" value="1" max="1" >
</component>
</defects>
```

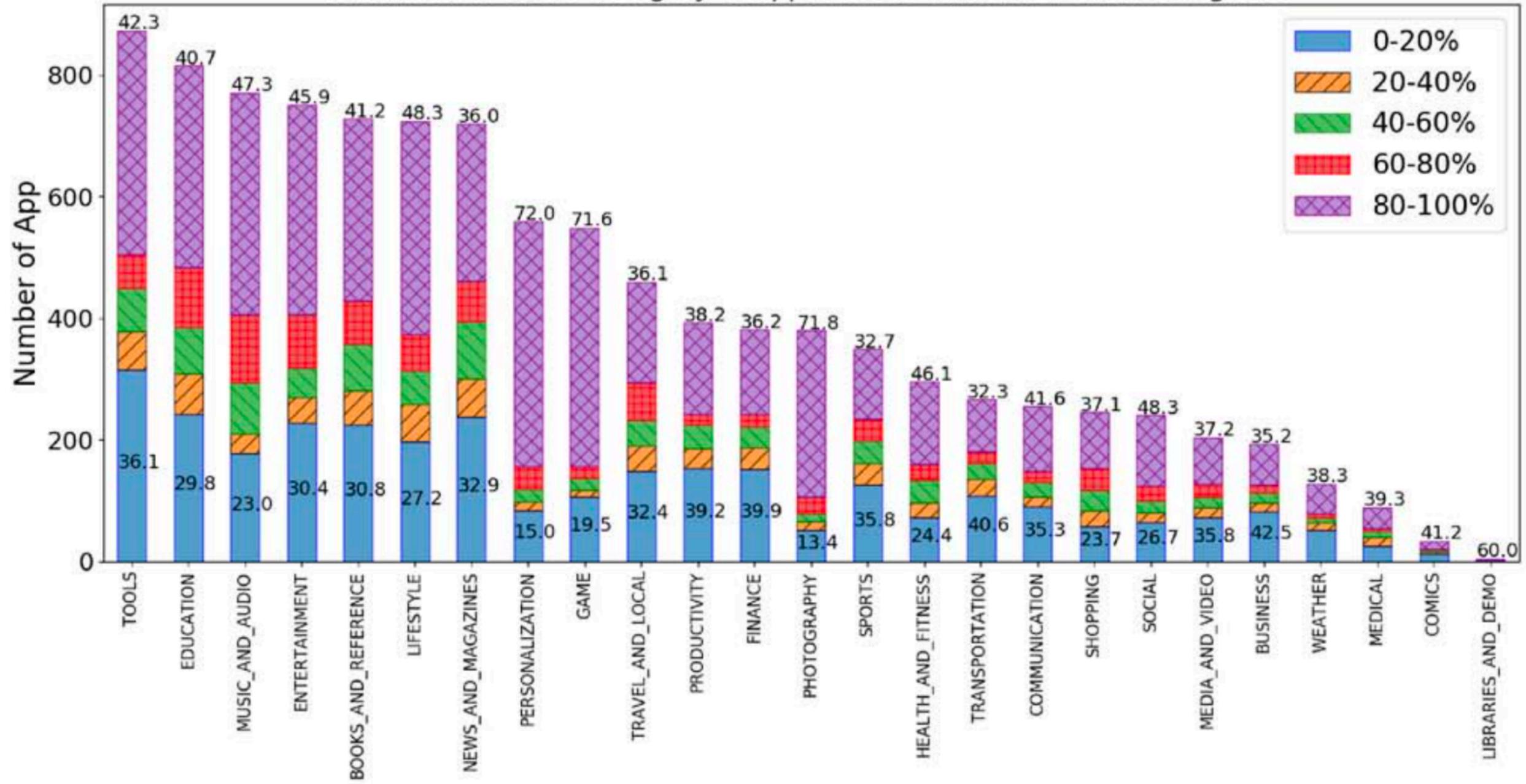
bug density

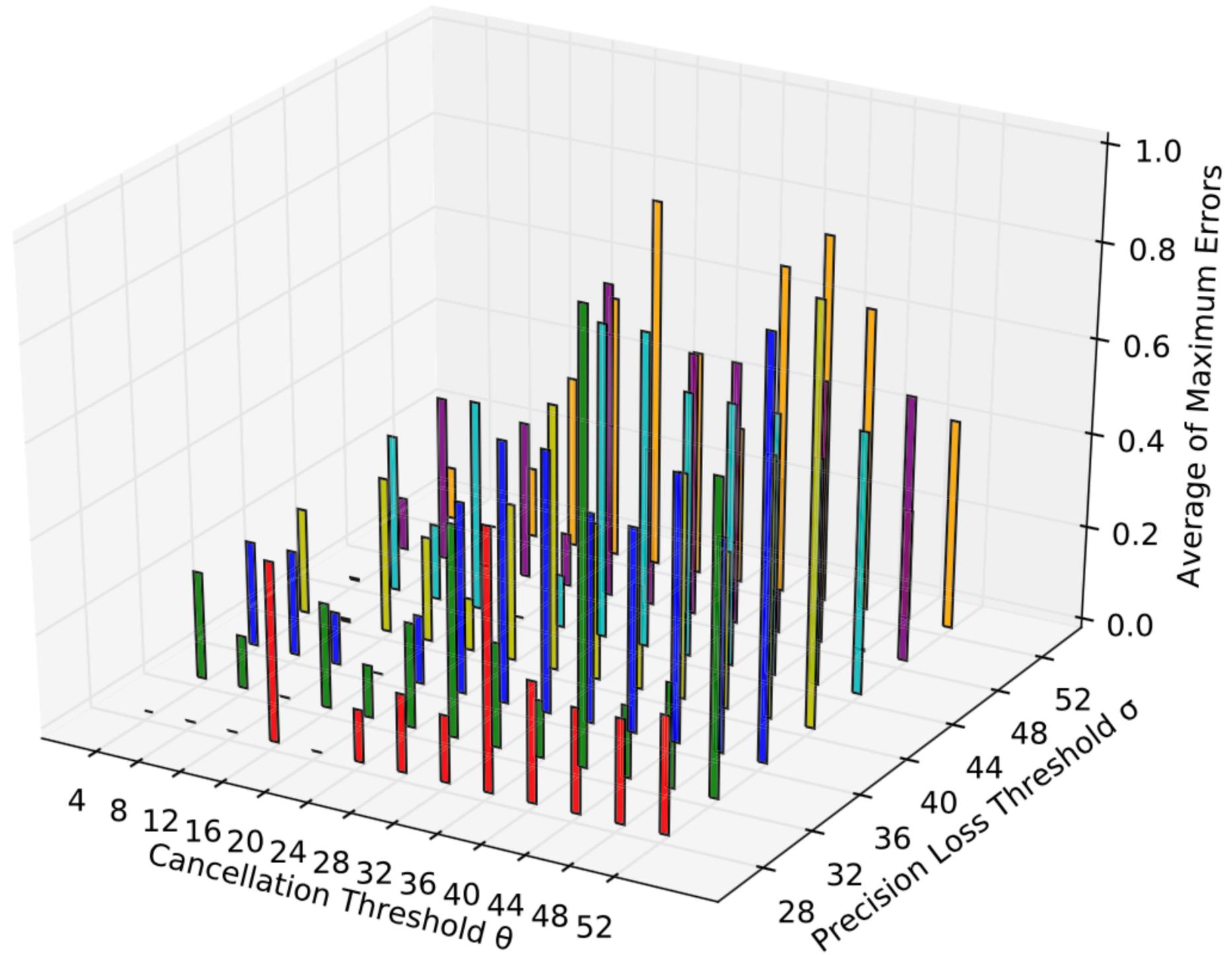
Plugin.java had 5 failures before and one failure after release ("post"). The package contains 43 files ("points") and encountered 16 failures before and one failure after release; on average each file in this package had 0.609 failures before and 0.022 failures after release ("avg")

Bugs • Fixes • Changes



Distribution of the category of applications with different missing rate





Strive for simplicity

- Simple messages get across easier.
- Simple examples fit on one slide.
- Simple slides make the audience listen.
- Simple claims tend to be general, too.
- Simple = Hard!

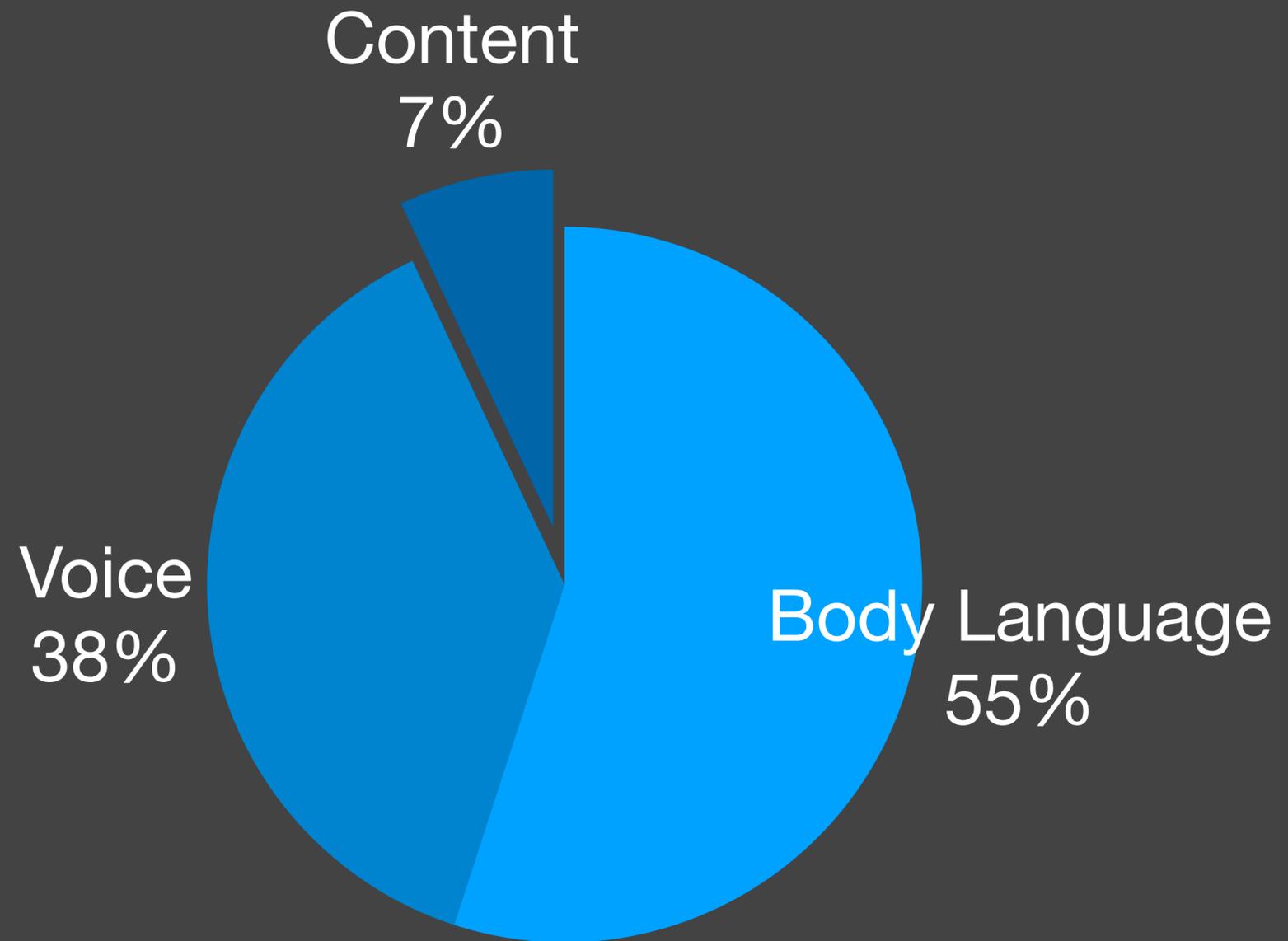
The Talk

- Do not read your slides (from paper or slides).
- Speak slowly, loudly and clearly.
- Speak personally (Use “I”, not “one”).
- Change your tone – and use pauses.

The “Jelly Factor”

- Every presenter is nervous (and so am I).
- Legs start shaking.
- Need for air.
- Brain goes into stand-by mode .
- ... but nobody will notice, **let alone worry.**

Your Impression



Connect to the Audience

- Tell a **story**.
- Talk directly to the audience.
- Ask rhetorical **questions**.
- Search **eye contact** to the audience.
- Convey your own **enthusiasm and excitement!**

Zoom tips



Zoom tips

- Details matter.
- Make sure you have **proper lighting**.
- Consider what is in your **background**.
- Avoid **ambient noise** at all cost.
- Do a speed test. (Zoom recommends at least **4Mbps** download and upload).
- Don't wear **complex patterns**.

Some Great Presenters

Steve Jobs



Lawrence Lessig



Concluding the talk

- Refer to the beginning.
Practice makes it perfect...
- Summarise.
The key point is: ...
- Open issues and consequences.
But there are more issues in realising production-ready ML...

Questions

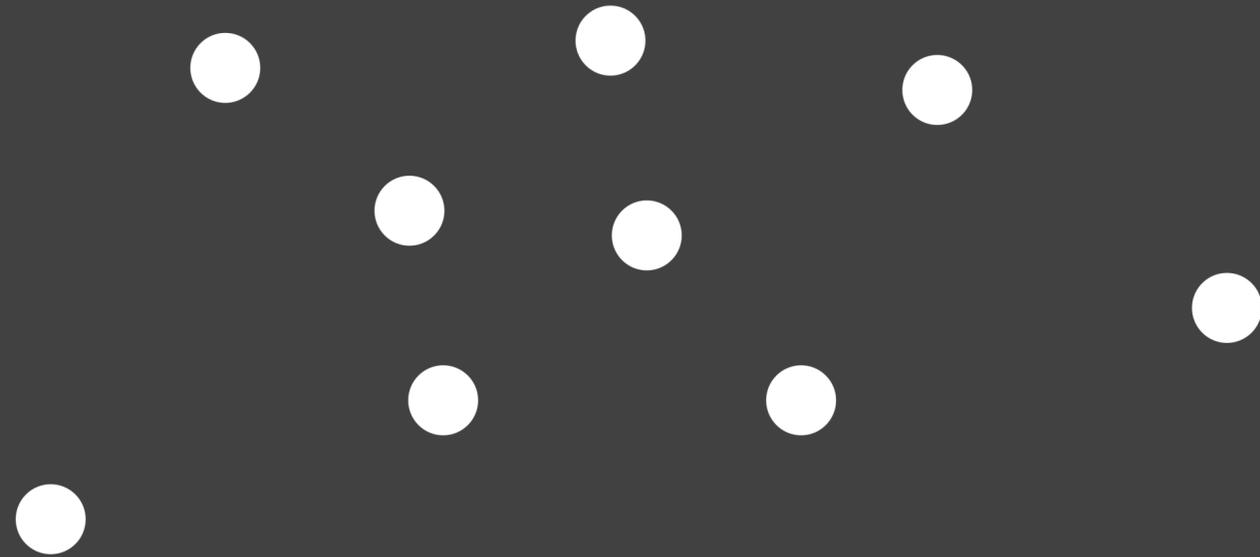
- Good research raises lots of questions!
- Questions are great to **connect to the audience** and to direct and shape own work.
- The worst embarrassment is to have **no questions at all**.
- Tip: **inception**. Feed some questions during your talk. Help attendees come up with interesting questions.



Dealing with Hard Questions

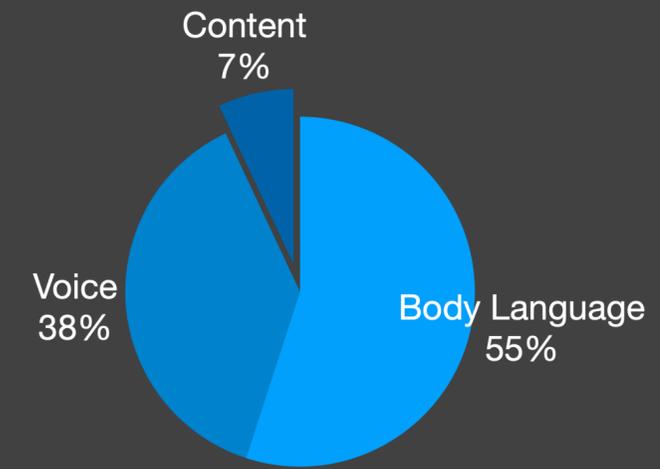
- **Repeat** question (helpful for audience + gives time for preparing an answer)
- In doubt: “I don’t know, but I’ll look into it”
 - Or: “Let’s just take this offline”
- Be respectful to the audience – no punching in the lecture room.

Keep it simple



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Your Impression



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Zoom tips



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Credits

- A great deal of the advice in this deck is inspired on Andreas Zeller's seminar "How to give a good research talk". Thanks, Andreas.



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