Giving a Short Technical Talk
Practical guidance for clear, engaging 15-minute presentations

Piotr Zwiernik

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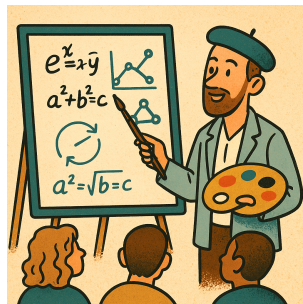
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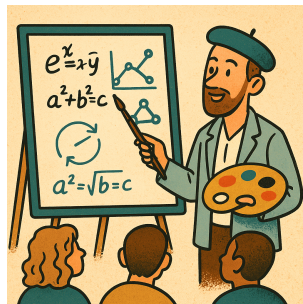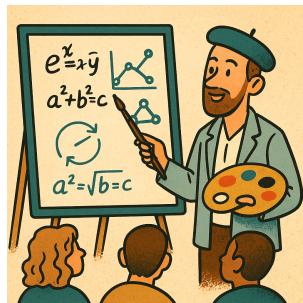
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But not everyone is tech savvy and not everyone is funny.

I collect some practical guides that everyone can implement.

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Key take-away

Less text, clearer structure, slower pacing.

Goals of a 15-minute technical talk

Teach **1-2 memorable ideas**.

Show **why it matters**: a motivating question or example.

Convey **credibility**: present at a high level; details in report.

Key take-away

Aim for understanding, not completeness.

Slide density: how much text?

Use headlines + speaking points, not paragraphs.

✓One-line headline; a few bullets; each ideally **one line**.

✓Try to use larger fonts.

✓Use figures, and *progressively revealed* equations.

✗Dense paragraphs; full derivations; tiny fonts.

✗Reading from slides.

Key take-away

If people read, they stop listening.

Timing & pacing (recommendation)

10 content slides for 15 minutes
(± 2 depending on figures/demos).

- ▶ Budget: **1.5 minutes per slide** on average.

- ▶ **Front-load motivation**: first 2-3 minutes hook interest.

- ▶ Do not prepare for whole 15 minutes.
      Many things will slow you down!

Key take-away

You cannot speed-talk technical material.

Minimal structure (rough recommendation)

1. Problem & Why (1-2 slides)

2. Main idea / model (2-3)

3. Key result(s) & intuition (2-3)

4. Example / figure / small demo (1-2)

5. Limitations & next steps (1)

6. Take-home points (1)

Key take-away

Each slide should answer a single question.

Figures beat text

Think about the visual aspect.

- ▶ Diagrams: a powerful way to convey ideas.

- ▶ Prefer **simple** plots with readable labels.

Key take-away

One figure per slide; eliminate non-essential clutter.

State the minimum math needed for the idea.

Use named objects and colors if needed.

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Math on slides

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  e.g. ... transition matrix is obtained from the adjacency matrix via the formula $P = D^{-1}A$

Replace long derivations by boxed results and intuition.

If you must show a formula: **progressively** reveal.

Key take-away

Audience should grasp the role of the equation, not derive it.

Audience calibration

Know your audience.

Never assume a slide is "too simple".

People enjoy talks they can understand.

Teach **two easy-to-remember** things
    (a rule of thumb, a picture, a comparison).

Key take-away

You get one shot. Go for clarity over cleverness.

Build the talk & the report together

My recommendation:

- ▶ Start drafting slides when the report is **50%** done.

- ▶ Slide draft exposes gaps in structure early.

- ▶ Technical bits in the report; mention verbally in the talk.

Key take-away

Co-development sharpens both narrative and results.

Can the text be shortened by reformulating? Any weird line breaks?

Are plots clear?

Is math readable?

Is space used wisely?

Is this line needed?

Is this slide needed?

Live delivery

Stand where you can face the audience and see the screen.

Use pointer sparingly.

If stuck: state the destination ("what you should notice is. . .") and move on. Do not start overexplaining.

Stop 30sec before time is up, invite questions.

Optional: Have 1-2 backup slides hidden for likely questions.

Final thoughts

Learn from others:

Identify aspects of good talks that are easier to implement.

Identify aspects of bad talks that are easier to avoid.

Treat your audience with care.

Key take-away

Your job is not to compress your report.
It's to teach something valuable, simply and well, in 15 min.