



Presentations people will want to listen to
Idea Book 2

This Idea Book stems from a series of science communication workshops conducted in Thailand in September 2017, and is intended as a tool for researchers who participated in these workshops and for other scientists wishing to improve their communication skills.

The Thailand workshops were co-organised by EURAXESS ASEAN and Thailand's National Science and Technology Development Agency (NSTDA) with the support of the Thailand-European Union Policy Dialogues Support Facility



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1. CONTENT

You

What message do I want to get across

Audience

Why I am going to listen to this?
Why is it relevant to me?

How...

...am I going to present?
Is a formal presentation the best way?
Would an informal demo be better?

Why am I going to
Remember?

Before you start...

Presenting is a delicate equation – you need to balance your needs (what you want to communicate) and your audience's needs (what they want to hear).

Once you've done that, think about why your audience will remember what you said – the way you communicate has a big bearing on this.

We have a tendency to communicate with non experts the same way we do with experts – that is, we give a lecture with Powerpoint slides.

This document gives some tips for slides but ask yourself if this is the best means of communicating with your target(s).

Sometimes an informal hands on demo can be far more powerful – remember you're not aiming to educate but to engage and interest your audience.

If you can involve your audience in your presentation, they're far more likely to remember what you say (more on that on page 36)



Plan your content with Visual Thinking

Visual Thinking is simply a way to map out your ideas on paper in a visual way – it makes it much simpler to organise your thoughts and to plan the structure of your presentation. You don't have to be good at drawing! This is just for your eyes only!

Firstly, lock up your computer and get some good old fashioned paper and pencils – don't even think about making slides yet.

The slide opposite shows an example of planning for a presentation. There is no right or wrong way to do this but one way is to start in the middle with the central

theme then add your ideas like petals of a flower.

Then look at each of your petals and ask how you can make these interesting for the audience – add these details (eg. Examples, hands on exercises, demos, objects etc.)

Once you're happy with your map – only then can you think about opening your laptop!



Share your passion for science

The best speakers have 3 things in common:

1. They truly **believe** what they're saying
2. They're **passionate** about their subject.
3. They **enjoy** presenting their subject to their audience.

Lets face it, scientific research isn't always the best paid job so most scientists are doing it because they believe in it and they're passionate about it.

That fulfills points 1 and 2, so you're more than half way there.

Enjoying presenting can be tricky when you're nervous but an audience will accept nerves (it might even mean they have more empathy for you). What an audience won't accept however is a disinterested speaker, so let hem see the passion that's driving you to work all those late nights in the lab!

Love your subject and your audience and they will love you back!

What's in it for your audience?

Are your audience gaining anything from listening to you? Is what you're saying relevant to them?
Can you make your talk:

PERSONAL

Does your research relate to them. Have they experienced a problem your research might help solve?

AND/OR

NEW/WACKY

Is your research something people have never heard of before? Something they will share with others?

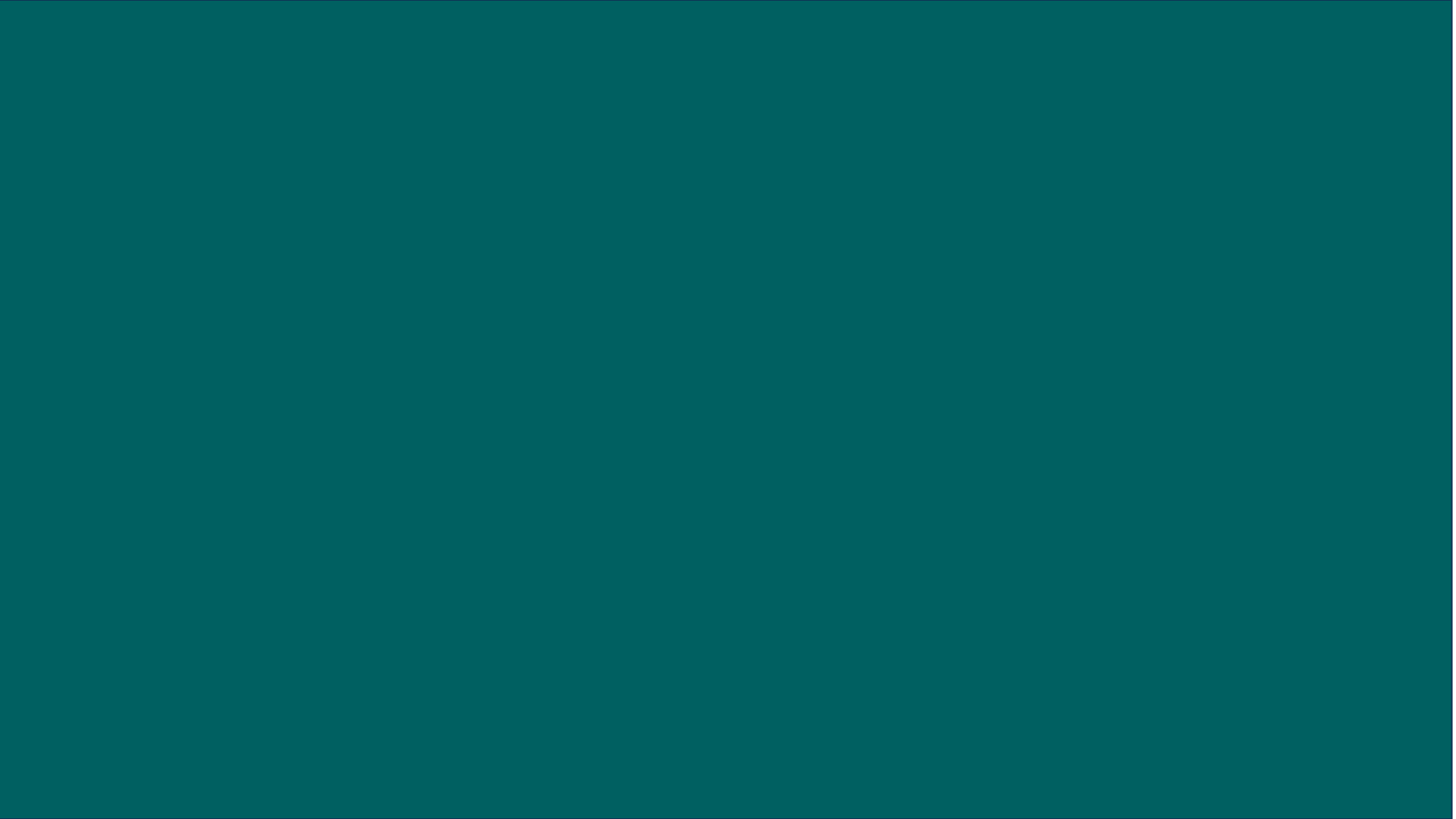
Good verbal communication is a SKILL

Some people are convinced that good speakers are just born that way – that it's some kind of talent coded by our genes. This is true to some extent but that doesn't mean that everyone can't be a good communicator.

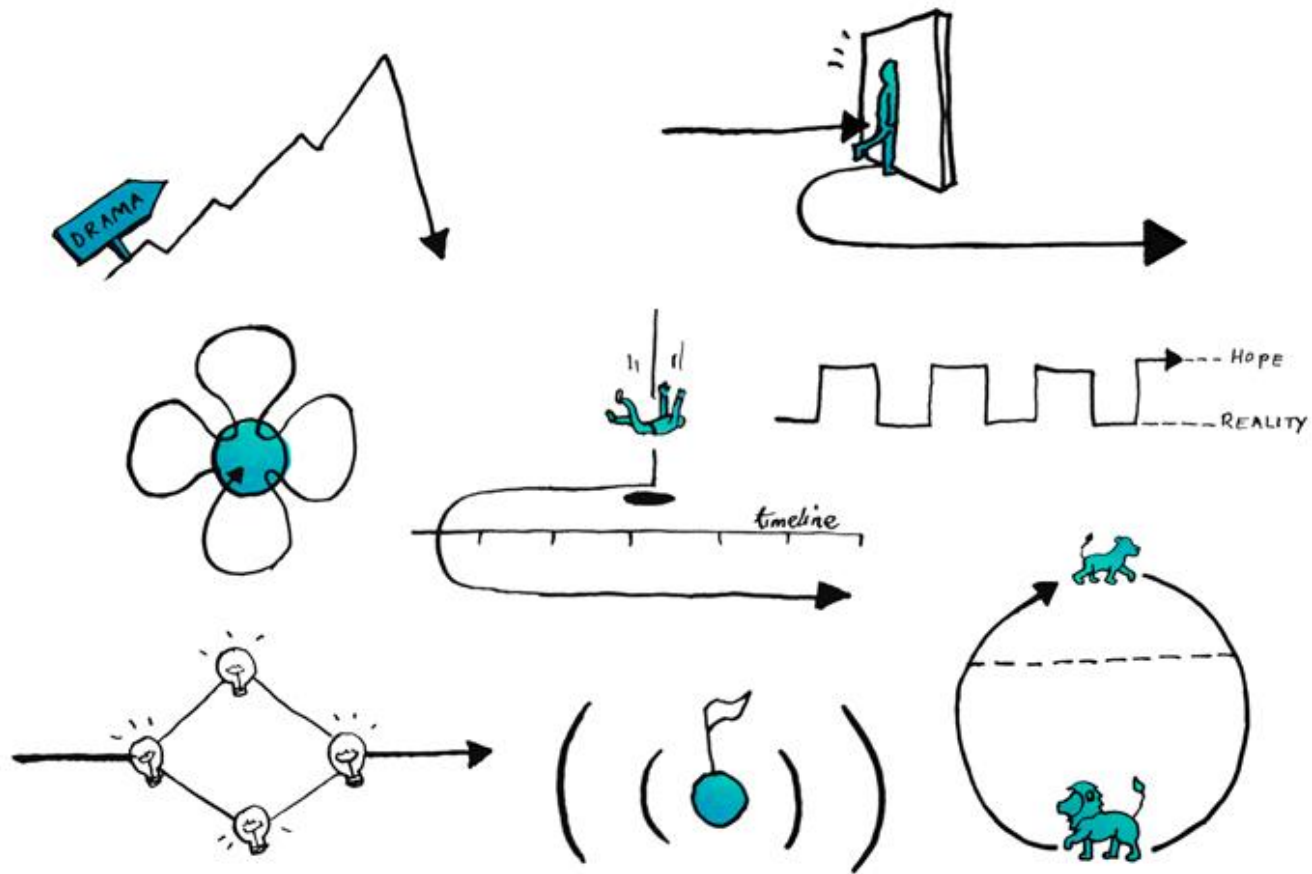
It's like driving – some people are better drivers than other (they have better spatial awareness or reactions), but that doesn't mean that they are the only people to drive cars. Some of us might need more driving lessons or fail our driving test a few times, but ultimately we

should all be able to drive if we want to.

Public-speaking is exactly the same – you can't be good if you don't prepare, practice and get plenty of experience 'behind the wheel'. Be prepared to make mistakes but come out of them a better speaker.



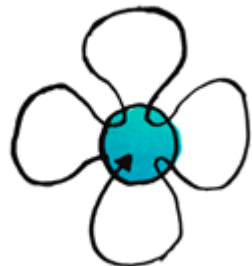
2. FORMAT



Get the full article at Sparkol.com

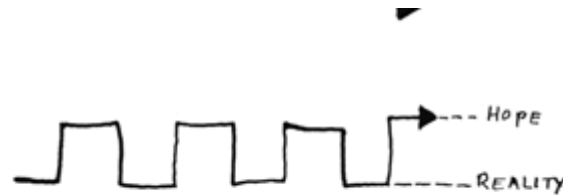
Different Types of Presentation

There are lots of different types of presentation – see the page opposite and if you want to know more, then you can check out the Sparkol article.



Flower structure

For science communication, there are two that we'll focus on – the 'flower' and the 'sparklines' or comparison structure.



'Sparklines' structure

INTRODUCTION

Establish Credibility:

Get Introduced;
Start confidently;
Introduce yourself & where you come from (lab, institution etc).

Gain Empathy:

Be personal;
Tell a (short) story, Create an emotional link;
Thank your collaborators & funders!

nCONCEPT(s)

Ask your Question
or
State your Claim

Provide the evidence:

Show results;
Give examples.

Relevance:

Give an intermediate conclusion;
Explain what this means to your audience.

CONCLUSION

Recap:

the summaries from each concept or 'petal'.

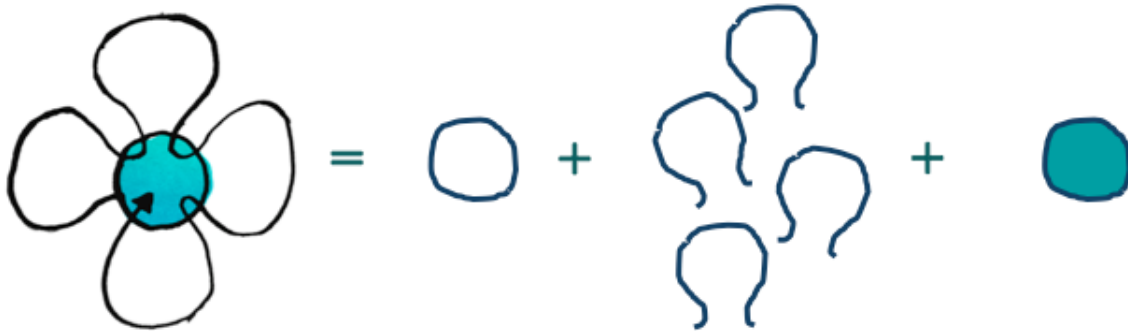
Remind:

the audience why it's important/relevant to them.

Parting words:

State clearly what the take home message is;
Give a Call to Action;
Thank your audience.

The flower format

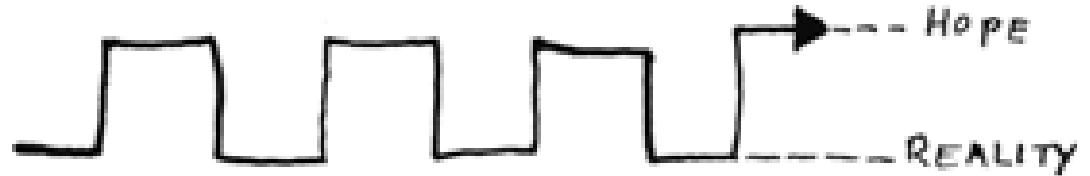


Presentation = Intro + n(concept) + Summary

The 'Sparklines' format

Sparklines can be a good way to present your research if you want to compare it to an existing situation. Eg. Air pollution today and the change we could make if we introduced clean power plants. It's more adapted to presenting new technologies or applied research. Steve

Jobs used it for the launch of the first iphone and you can see a great analysis of that talk by [Nancy Duarte at TED](#).

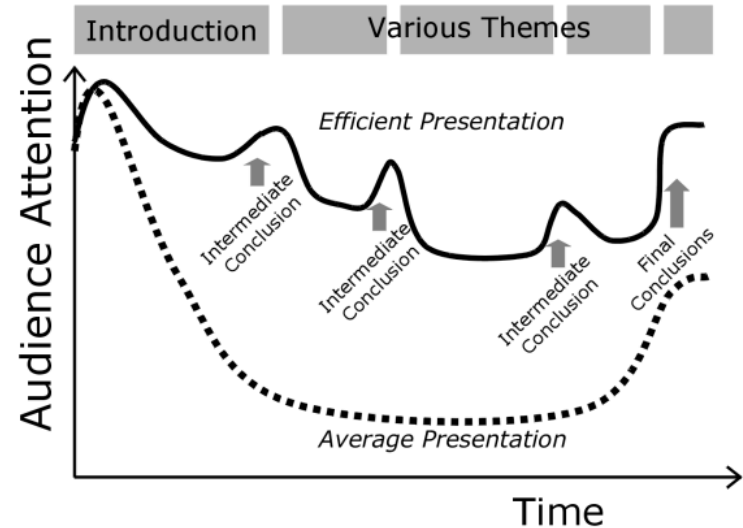


Why format matters

The only time you get everyone's attention during a talk is right at the beginning – from this moment on, you'll start to lose people as they drift in and out of concentration and resist the call of their mobiles/laptops.

A well structured presentation with intermediate summaries and recaps will bring your audience back in and hopefully you'll have almost everyone.

People will remember better what they heard **last** and **repeated** most often.



1. **Introduction**

2. **Background**

3. **Methodology**

4. **Results**

5. **Discussion**

6. **Conclusion**

7. **References**

8. **Appendix**

9. **Index**

10. **Index**

3. SLIDES

3
5
7



Visual Superiority

Our brains are excellent at image recognition – they process images faster than text and we're more likely to remember something if it's associated with an image rather than in a long list of bullet points. The old adage that a picture speaks a thousand words is true, but we still see so many presentations with only text in them.

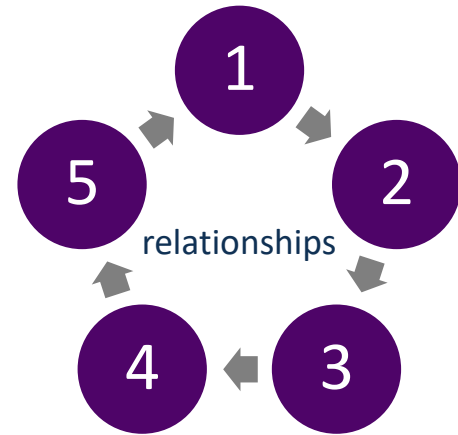
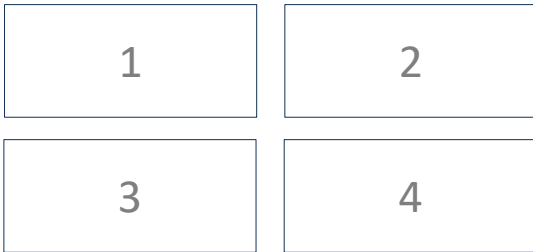
Once you've created your slides, go back and see if you

can replace any with images. For good rights free images, search for creative commons images on [Flickr](#). Don't forget to credit the author!

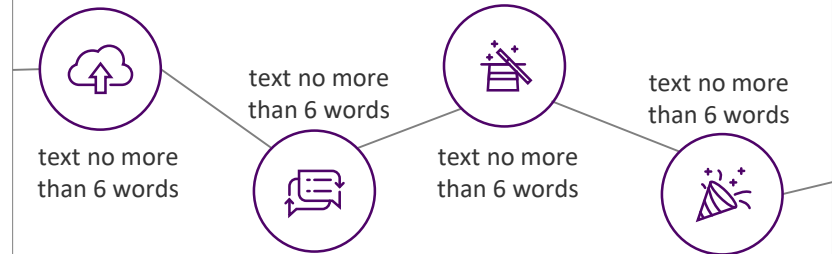
Our brains also prefer asymmetry, so if you can illustrate with 3, 5 or maximum 7 items, it might stick with your audience.



Use Shapes



Picto Pathway



Adapted from 24slides

Bullet points

A surefire way of putting your audience to sleep is putting up slide after slide of bullet points. Adding animation to make them appear one by one helps but it can quickly get repetitive.

If you absolutely must use bullet points remember the following rules:

- **1** concept/message per slide
- No more than **6** bullet points per slide
- No more than **6** words per bullet point

Try replacing your bullets with an image that illustrates the point you're trying to make . If this isn't possible, use different visual methods to replace your list of bullet points – see opposite for some ideas.

Don't ever read off your slides: they are NOT a script for you – they should be to help your audience! Your slides should never be 100% self-explanatory – if you're adding nothing you might as well hand out them out and go and get a coffee.

Keep it simple

There are masses of templates for slides available so the temptation is to use something really fancy...don't!

Too much busy content will just distract your audience from what you're saying. Here are some golden rules:

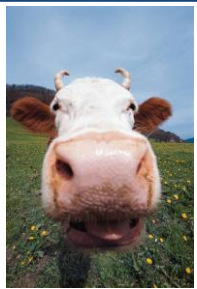
1. printing your slides. Some colour to divide up the presentation from time to time is good;
2. Stick to shades of the same colour on the same slide, plus grey;
3. Use the 'themes' tab on powerpoint to select colour schemes that work;
4. Never use animation, except 'appear';
5. Don't go below 28 font size;
6. Use sans serif fonts unless your text is really big.

Slide format

16:9

This format allows you to mix images/graphics and text

It's also the same format as Youtube/smartphone screen



4:3

The risk with this format is that you use too many lines of text

It's also harder to mix with graphic content

Same format as ipad screen, closer to A4 if printing

4. DELIVERY



Timing

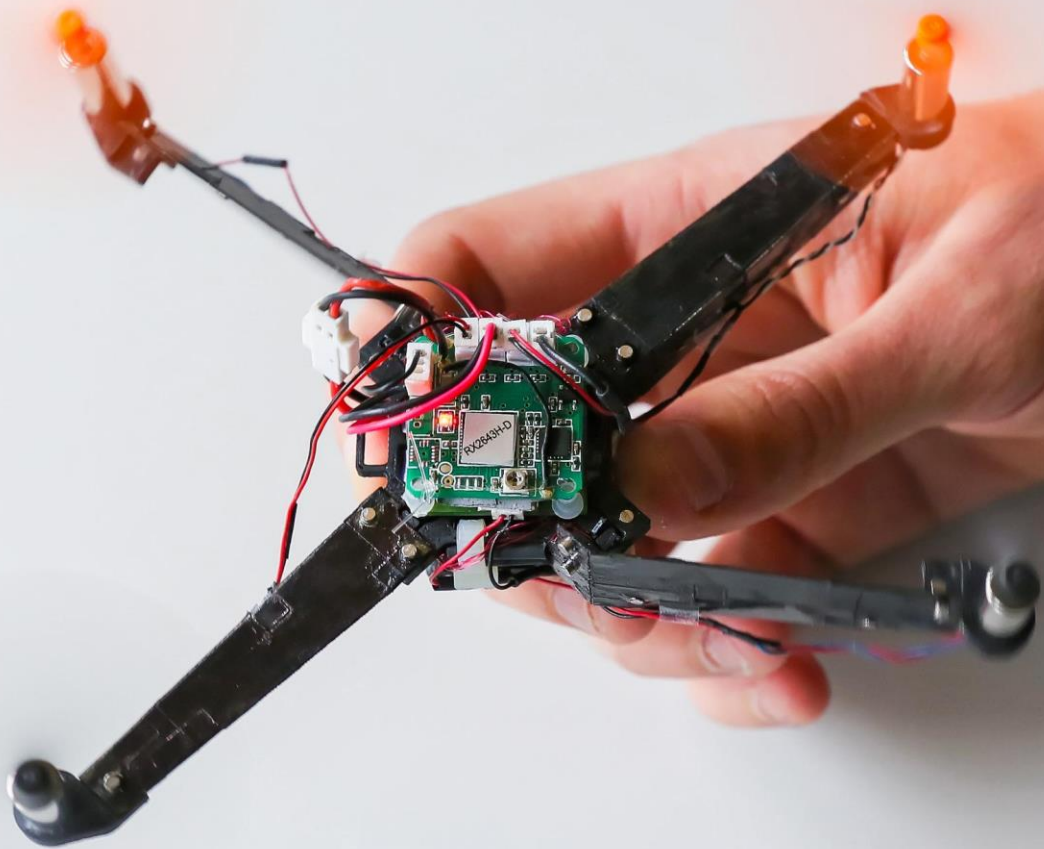
Most talks are timed – some more strictly than others. In addition, the length of talks has reduced so that many people will be asked to stick to 7 or 12 minutes for example. Elevator pitches tend to be even shorter, around 3 minutes (you can actually say a lot in 3 minutes and it's a good exercise in forcing you to the essential messages!).

Once you know how long your talk should be, make sure you practice so that you don't run over.

What message does it give your audience if you overrun and keep going?

1. They know you didn't practice – you're no longer credible
2. You're showing a lack of respect for the other speakers (who stuck to time) and the organisers.
3. Above all, you're showing a lack of respect for the audience – this is their precious time.

If you overrun, everything you've said up to this point is useless..the audience have switched off. So, if the MC says "last slide", make sure it is.



Objects

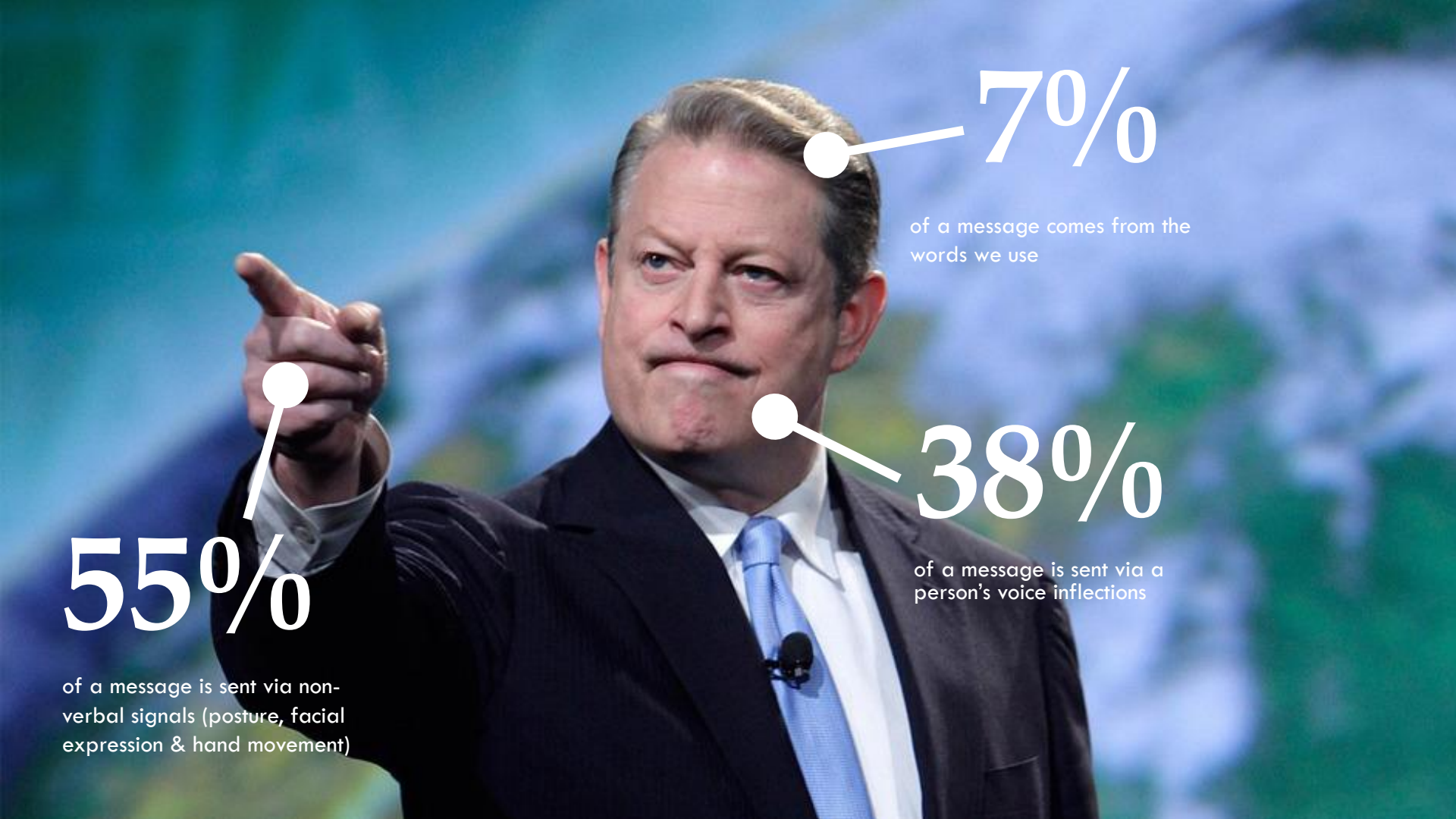
Using objects in presentations can be a powerful tool.

It could be something from your research – an intricate microcircuit or a new material. You may think it mundane but it will be new for your audience and they will feel privileged to be able to touch something that not everyone has a chance to touch.

Alternatively, it could be an everyday object to illustrate your point. A great example is [Hans Rosling's talk](#) using

Ikea boxes to create graphs – a truly inspired way of communicating.

If you can also pass round your object, you will be adding the 3rd sensory input of touch above just sound and sight for your audience. This makes it more likely they will remember.



7%

of a message comes from the words we use

38%

of a message is sent via a person's voice inflections

55%

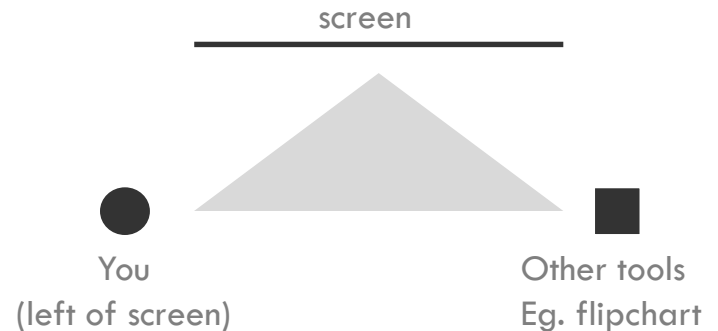
of a message is sent via non-verbal signals (posture, facial expression & hand movement)

Use more than your voice

The way you say something has more bearing on how it's perceived than what you're saying (see image opposite). Great speakers use all the tools available to them to get their point across. Used in moderation, the following tips can help:

- Put emphasis on important words;
- Use your hands to stress words or demonstrate movement/processes (don't overdo it though!);
- Move next to the screen and touch a specific part you want to emphasise;
- Make general eye contact with your audience.

Stay within the 'speakers triangle'



Use your audience

Involving your audience in what you're saying also helps with retention and making them feel that your message is relevant to them.

You can move them **physically**:

- Do a 'survey' – ask everyone to stand up and then “sit down if...” etc. (this is better than asking people to raise their hands, as everyone does it together and no one feels stupid);
- Get them to perform a task
- Let them feel an object (see page 33)

You can also move them **emotionally**:

- Use memory techniques eg. “remember a time when...”;
- Challenge their beliefs;
- Tug on their heartstrings, but finish on a hopeful note;
- Make them laugh.

Never improvise

All those great talks you watched or listened to? They're all scripted! Even the best speakers carefully prepare their talks and practice them. But this doesn't mean you should read from your script.

1.

Write your script in full

Reduce it to bullet points
5 per slide max
(for your eyes only)

2.

3.

Write the bullet points in the notes section under slides if using powerpoint

Learn your script off by heart for the first 3 slides. Use your bullet points for the rest

4.

The following pages contains some planning tools to help you with your presentations:

1. A checklist for stress-free presentations
2. A planning canvas for presentations based on the flower model described above
3. A canvas for planning your entry and first 30 seconds of your talk

CHECKLIST FOR STRESS-FREE PRESENTATIONS

1. A few weeks before you go:

Check technical requirements with the organisers:

- Inform them of the format of your presentation (ppt, keynote, prezi, 16:9, 4:3, PC, Mac etc.)
- Will you use your computer or a central one?
- If you have any films – do you need a connection for sound?
- Do you require an internet connection
- Do you require/will there be a camera for close ups
- Send a copy of your bio (written in third person) – make sure it contains only relevant info
- What is the stage set up – lectern etc
- What microphones will be used (if relevant) – request a lapel mic if not comfortable with handheld
- Do you need a flipchart, pens, post its etc...

2. Getting there

- Names and contacts numbers on site
- Maps/directions to the venue
- Getting to and from airport
- Car parking
- Public transport

3. Equipment

- A usb stick with your presentation saved in several formats including pdf. (especially if using keynote)
- If using Prezi, make sure you have access off line
- Computer power cable
- Phone power cable
- Cable for projector (particularly if using Mac)
- At least one international adaptor
- Remote control and Laser pointer
- Extra batteries
- A small set of speakers just in case the sound doesn't work

4. Written documents

- Printed worksheets/handouts if needed
- Your notes if required – reduce each slide to 3-4 bullets or use prompt cards
- Printed copy of your slides for participants if required
- Business cards
- Institutional brochures, annual reports etc...

5. When you get there...

- Arrive early and go through all your slides in presentation mode with the projector (this is especially important if your presentation includes films).
- If you're running off a central machine, insist you do this with the onsite technical people to make sure everything is working (funny things always happen).
- Do a 'walk on' rehearsal' of intro slides
- Visit the bathroom before your talk starts! Freshen up and do relaxation exercises.

PLANNING TOOL FOR CREATING PRESENTATIONS

Introduction
Gain credibility and empathy from your audience. Explain who you are, where you come from, why you're here.

Concept 1		
Ask a question or state your claim	Evidence, results & examples	What does this mean/why relevant?

Concept 2		
Ask a question or state your claim	Evidence, results & examples	What does this mean/why relevant?

Concept 3		
Ask a question or state your claim	Evidence, results & examples	What does this mean/why relevant?

Concept 4		
Ask a question or state your claim	Evidence, results & examples	What does this mean/why relevant?

Summary
Recap summaries from each concept, overall relevance/message. Call to action

Your first 30 seconds – making sure they count



GAIN CREDIBILITY. Introduce yourself. Who you are, where you come from.



GET ATTENTION. Introduce your topic. What are you going to tell your audience?



ENSURE RETENTION How does it concern your audience?



Tools

1. Ask a question – ‘how many of you have ever run out of petrol on the motorway?’ (combine with physical)
2. Move them physically – eg. Ask them to stand up if..., shake their neighbour’s hand etc.
3. Ask them to perform a task related to your research – eg cognitive test
4. Use memory techniques – eg. Remember a time when you were really scared/happy/angry/in love (be specific & describe in detail)
5. Challenge an accepted belief/be provocative – eg. buying organic fruit and veg might be worse for the environment
6. Make it personal. Eg. Have you ever lost someone dear to you from cancer
7. Make them laugh. Self effacing/personal humour is the safest (but bear in mind culture and don’t put yourself down).
8. Make them cry/tug their heartstrings. Eg. 1 in 3 babies die before their 3rd birthday....but finish on a positive note!
9. Make a geographic/cultural link. Eg. I’m so glad to be here in Bangkok because.../a funny thing happened on the way here...
10. Link to something/someone famous/well known. Eg. A quote, landmark, personality etc.
11. Tell a personal story. Eg. When I was a kid, I was crazy about space films & sci fi...so I had to become a astrophysicist
12. Use objects – ‘Show and Tell’. Could be a technical device related to your research or an everyday object to illustrate a point
13. Give facts your audience can use to ‘brag’ or share

About the Workshop Organisers



EURAXESS-Researchers in Motion is a unique pan-European initiative delivering information and support services to professional researchers. Backed by the European Union and its Member States, it supports researcher mobility and career development, while enhancing scientific collaboration between Europe and the world.

For more information on EURAXESS please contact Simon Grimley and Susanne-Rentzow-Vasu at asean@euraxess.net



The National Science and Technology Development Agency (NSTDA) is a semi-autonomous government agency under Thailand's Ministry of Science and Technology. NSTDA is committed to achieving four strategic missions comprising: 1) research & development 2) technology transfer 3) human resource development and 4) S&T infrastructure development, through its four main national research centers; the National Center for Genetic Engineering and Biotechnology (BIOTEC), the National Metal and Materials Technology Center (MTEC), the National Electronics and Computer Technology Center (NECTEC), and the National Nanotechnology Center (NANOTEC).

For more information on NSTDA please contact Phawika Rueannoit at Phawika.ruennoi@nstda.orth



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