How to Present to a Technical Audience

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P R O F E S S I O N A L S

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How to Present to a Technical Audience

There are a lot of resources available for general presenters to learn their craft. This is not going to be one of them… Instead, I'm going to focus on the specific situation where you need to present to a very technical audience. On a technical subject.

Perhaps you've been tasked with presenting to a Tech Field Day event, a Vendor-centric conference, or at #WLPC – Wireless LAN Professionals Conference.

In this case, you'll need not only your skills as a presenter, but also some extra tips and hints on how to best deal with your specific audience.

Many times, folks from marketing or sales are tasked with presentations – and they normally have an audience of potential customers – people who are their targets to purchase whatever products or services they are selling.

Yet when presenting to a Technical Audience – the 'normal' sales and marketing techniques will not work as well. In fact, that type of "salesy" presentation will be discounted, the presenter will be silently mocked, and the message ignored.

This document is merely recommendations for those starting out, if you have better ideas and presentation experience, use your best judgement!

Remember – rules can be broken…
yet they are a good place to start!

Presentation Tips, Rules & Hints

Begin with the End in Mind

Before starting on your presentation – step back, think through the entire process, and start with a plan:

- What is the main goal you are trying to help your audience achieve?
- What is their current pain point, or struggle you are helping them overcome?
- What is the purpose of your presentation?
- What are you trying to convey?
- What do you want the audience to do, say, feel, or act?
- What skills, abilities, understanding, etc. will the audience have at the end of your presentation?

At the conclusion of your presentation, be sure to give the audience actionable steps they can take. It can be as simple as a writing assignment, teaching the concept to others, doing further research, getting a copy of the presentation, downloading supporting documents, or sharing a link on social media.

Note:
For your presentation, be sure to remember the following questions:
1. *Is this content highly useful and/or, educational? Is it something audience members can learn from?*
2. *Is this entertaining enough to keep the audience's attention?*

Evidence Based Presentation

This is a critical step when presenting to a technical audience. We've all seen marketing/sales folk present with great excitement, and lots of techie words… but without any supporting evidence.

Data, data, and more data!

The best presentations for a technical audience are based on experimental data. Showing the results of experiments.

The 'scientific method' is something we've all learned over our years in academia. Hypothesis, experiment, results, conclusion – rinse and repeat.

What I am suggesting is you move the conclusion to the front. Then show the experimental results. You can leave the hypothesis and experimental methods for your supporting documents. For most of the audience, they'll respect your efficient use of their time and feel comfortable with your conclusions after seeing the results of your experiments.

For those who want to know more details, have them available for download or offline after the presentation is over.

You **should** go through all the proper steps, but the audience does not need to hear them in that order. Your conclusion is most important, and then the results you achieved. Anything else can be referred to as a resource or something that may be downloaded after the presentation.

> *Note:*
> *I am **not** suggesting to **not** do the scientific method but need to emphasis reinforcing the correct processes. Just don't present in that order.*

> *Note:*
> *Yes, I **know** it is hard to break from the way you were taught in school. But please do so… the audience will appreciate it.*

Do Not Waste Time with Introductions

Forget what you learned in school about presentations, about writing term papers, and standard old-school skills. We live in a new era. People are used to skimming information and getting details via text/SMS or email.

Jump right in. Yes, jump right in.

I know in school they taught you to introduce yourself, introduce the problem, explain, give supporting information, etc. – but in today's world – speed and efficiency are the keywords to keep people's attention.

Sure, give your name and title, but then move on. In previous times, we might have been taught to do a 'credibility set' – explain why the audience should listen to you. List your credentials, where you received your education, or what certifications you might have. OK, put them on your intro slide, but you can move past it in mere seconds.

You wouldn't be presenting if you didn't have something the audience wanted to hear. Skip the preamble bits. No one cares.

What they **do** care about is the technical information you have to share, what they **do** care about is your energy and excitement and your deep understanding of your own product.

And for those of you who are worried about this, a single introduction slide can provide both an introduction and set your credibility.

Do Not 'Set the Stage'

Perhaps in 'normal' sales and marketing pitch presentations your audience doesn't even recognize either the solution, or a need for your solution. Thus, you start with a 'set the stage' kind of section. A prime example is describing an industry technical term, and then going into excruciating detail to show WHY your solution solves whatever the term describes.

An example is talking about a specific issue your product solves, by explaining the problem up front.

For your technical audience, they already **know** the problem, and the term and how it can be solved. Any time you spend on 'Setting the Stage' will be wasted and your audience will not only be bored, but they'll think you have no clue as to them as an audience.

It is totally fine to jump directly into your solution. Your audience is probably already **living** with the situation and has no need for you to repeat it for them.

If your audience is new to your solution or technology, feel free to share a short introduction, but do not belabor the point, or focus on setting the stage, but jump right in.

But this, like many other things is dependent on your ability to read your audience. If they are glazing over, or acting bored, or engaged… you'll need to be able to adjust your presentation accordingly.

Hopefully, you've done your homework in advance and understand the technical capabilities of your audience and their prior involvement with a like technology or idea.

Do Not Use 'Presenter Notes'

Another technique used by poorly trained presenters is to rely on the slides, or even worse, **rely** on the 'presenter notes'. It is **obvious** when a presenter is not prepared and must use their notes.

> *Note:*
> *Going over the slides and reading from presenter notes only practices the very thing you are trying to **not** do. Try to practice with only your slides, and **do not** ever practice **with** presenter notes.*

Depending on the specific venue layout, you should request a 'confidence monitor' – or a duplicate view what is on the screens showing to the audience. This allows the presenter to know what the audience sees, without needing to look backward or over their shoulder at the main room screens.

– Practice, practice, practice. Then practice some more.

This is not at all to say do not prepare your presentation with the notes function. It is a very credible way to build your slide deck. Just don't use the notes inside the deck as your sole handout or use them during the presentation.

You can easily adapt the slide notes into an organized and professional handout that will be greatly appreciated by your audience… after the presentation!

Do Not Put Lots of Text Information in Your Slides

Another tell-tale sign of not preparing properly – the use of slides with tons of bullets, details, and even full sentences or paragraphs of information. There are times part of the presentation is to transfer a lot of pertinent information to your audience. Fine, but do not put that information in the slide deck.

You can, and should, use handouts, or PDF deliverables of the details. But **not** on the slides. Slide decks are **not** the main source of information transfer.

The presenter's skill is in knowing the material so well that the energy and vitality of the presenter's personality comes across. The human face and voice have a wide range of ability to transfer more than the mere written words.

> *Note:*
> *Neuroscientists have found that it is nearly impossible for people to read and really listen at the same time. Therefore, having too much text in your slides is not very useful at all. In fact, it is quite counterproductive.*

Speak To the Room

You should be able to adapt your presentation to the audience. Sometimes the audience will not turn out as you anticipated. You might need to speed up, slow down, skip slides, or even change your tone or technical depth on the fly. This is not a simple feat, but if you are prepared and are empathetic and see how the audience is responding to you, changing, and adapting on the fly will become second nature.

Never Read from the Slides

Do **not** be tempted to read from your slides.

There is no way any presenter can read the slides faster than the audience can read them. Thus, if the information is on the slide, there is no need for a presenter to be there – because by the time the audience has finished reading the slide's text, the presenter is far behind… and then the audience is extremely bored waiting for the presenter to catch up.

> *Note:*
> *If you need to transfer lots of textual information – then give audience a handout after the presentation. Don't be lazy and use the slide deck AS your handout.*

These words need repeating:

Never, ever, read from your slides!

Demonstrations – Live is Best!

Everyone loves a live demonstration. OK, perhaps not the person doing the demo. But doing a live demo shows confidence in your solution.

Demos are great! Especially those that show your product or service doing exactly what you want the audience to be impressed with.

Live demos are the best. They not only show the presenters understanding of the product, but also the ease of use, and the simplicity – since the presenter can talk **and** do the demo at the same time.

If you are worried about the stability of the demonstration, you can **additionally** prepare a recorded version. But lead with the live demo and revert to the recorded demo only as a backup. Not as your primary.

Answer Audience Questions Proactively

If you can anticipate any issues or questions from your audience, then address them directly in your presentation. If an audience member has a question, like "Can I get a copy of the slides" – and is not told the answer till the end, then they can't give 100% focus during your presentation.

Questions like, "how to get copies of the slides", "is the recording available", "what is your email, Twitter handle, or LinkedIn name" can all be addressed in the first 30 seconds along with a very short self-introduction.

> *Note:*
> *These are perfect things to have in the very beginning of the presentation. Answer them directly on the introduction slide. People can read the answers faster than you can say them.*

Zoom In

Your audience will be farther away from the screen, even the big screens, than you are close to your presentation laptop.

Zoom!

You may be looking at your slides, or doing the demo on your laptop, and from the distance you normally work – you can see everything fine.

Yet your audience **can not**. Try practicing with your laptop on the other end of the table or desk where you are preparing. If you wear glasses, take your glasses off and experience your presentation slides or demonstrations with less than perfect eyesight.

Another mistake sometimes happens when the slides are fantastic, large fonts, lots of graphics, no long sentences of information… great slides. Then the presenter starts the demonstration and switches to a local laptop and uses the default screen size – meaning the text is 12-point size, but only a very short distance from your eyes to the screen, but what the audience sees is something more like the perspective of 4-point type that is total unreadable.

Note:
If you have a demonstration – be sure to follow the zoom rule,
especially in the recorded version!

Do Not Use a Laser Pointer

I know this sounds a bit silly – you do need something to change slides.

But instead of a laser pointer, use something to highlight what you are talking about. There are presentation tools – other than mere laser pointers – that allow for highlighting with 'spotlight' type lighter/darker areas on the screen that make following you attention better.

As a presenter, **you** know what you are looking at – it is your own eyes after all that are looking at the thing you are focusing on. But the audience does **not** know where your eyes are pointed.

> *If you talk about something you are looking at, you'll lose the audience's attention when they must spend precious time and effort merely trying to find what you are focused on. During that time, they are **not** listening to what you are saying, nor are they focused on the thing you are referring to.*

Lasers are very 'old school'. Especially since many of our presentations are not on LCD screens, or duplicated on multiple screens, or being recorded. Laser pointers don't work with LCD screens, nor do they show up on multiple screens, and they are not recorded. So, a laser pointer should not be used.

> *Note:*
> *There are presentation remotes, like Logitech Spotlight or Norwii N95, that are designed to be used with LCD screens by highlighting on the screen and work far better than laser pointers when using today's presentation technology.*

Whatever type of presentation remote you might use, be confident in how to set it up with your primary computer, and possibly your backup presentation device. And of course, know how to use it for your specific situation.

Control the Flow Yourself

Control your own flow. It is extremely frustrating for the audience to hear 50-70 times in a presentation, "*Next Slide*". It is **not** fun for the presenter either.

Sometimes conference organizers like to have **control** over the slide content and want you to provide them with slides early and then they can have them local to help in the conference recording process. That does **not** help for the audience or presenter. Plus, you'll lose the flow control. As well as the ability to skip forward/backward to help adjust for timing during the presentation.

This should be a 'non-negotiable' part of any presentation.

> *Note:*
> *Most remotes can move forward or back through the slide deck, they can also 'blank' the slides, projecting nothing on the screens. This can be a great way to support a 'pause' – to bring back attention to the presenter. And help the audience focus on what you are saying, not what they are seeing.*

Do Not Be Intimidated

You may feel intimidated when you think of all those in the audience who may be smarter, higher paid, more experienced, or older than you are. All those things will always be true. Get over it. You will not always be the smartest person in the world. But you have prepared and are ready to share your knowledge, and the audience is there to listen and learn from you. Enjoy the process!

Prepare and Plan for Q&A Time

If your conference or venue supports or even encourages questions from the audience – then be prepared for them to come – usually at the most inopportune time. Time your delivery and amount of content appropriately.

Questions can also get you 'off your game' – because many times the question isn't closely related to the topic you were just speaking on. Be prepared to help with flow control and be able to either quickly answer or move the question to a more appropriate time.

If you have a fixed time slot to present, and the organizer allows for questions – then leave **time** in your presentation to accommodate those questions. If you answer a question earlier in the session, and later find you don't have enough time to finish the content you planned on delivering, then it is your fault for not leaving appropriate float buffer in your presentation.

> *Note:*
> *We have determined to not allow questions from the audience in #WLPC presentations. We tried for a few years, but it added confusion, delays, and when presenters started 'shorting' their presentation preparations and planned on merely answering questions… we ended the practice.*
>
> *Plus, a majority of 'questions' were individuals making their own statements and had no 'question' value.*

If your organizer allows for questions at the end, have someone else capture the questions to help remove duplicates. This will allow you to stay focused on your presentation, and not waste the audience's time with you trying to 'catch up' and read the questions while the audience watches you quietly reading.

It is far better to anticipate questions your audience members might have – and answer those very question **in** the presentation itself. This does require more detailed preparation, and perhaps doing sample presentations to potential audience members before the session. However, this will allow you to stay on task during your presentation as well as incorporating answers to potential questions directly inside your presentation.

Note:
*Many of the best presenters I know use this technique in the development of their slide decks. Research, find questions, then ask and answer the questions **in** your presentation.*

Use Your Best Technical Person to Present

Know your product. This applies to marketing and sales folks. Perhaps you don't need to be as good as the product folks, or your engineering team. But when presenting to a technical audience, if you don't know at least as much as your audience about the technical aspects, you should **not** be the person presenting.

A technical audience respects technical expertise. Not merely in the subject domain, but intelligence, a quick wit, and broad technical knowledge impress this audience.

The opposite, someone who only knows the jargon, but misuses the words – or a marketing person who fails to understand their audience will be discounted as well as mocked.

Note:
Please do not present to a technical audience anyone who hasn't used the product, service, or idea themselves.

Let the Love of Your Product Shine Through in Your Energy!

Energy is palpable. Not merely hyperactivity. Not merely talking loudly. True energy that comes from the **love** of your product, service, or idea. You can fake energy with loud talking, fast talking, and energetic movements on stage but a technical audience will quickly see the difference.

If you don't normally have high energy… that is fine. Like most things in life, you can practice, learn the skill, perfect the skill, and add it to your presentation repertoire.

Be Presentable

Some have mentioned you should 'dress for the job you want'. That might work for job interviews. But when presenting to a technical audience, it probably holds very little weight.

But you can and should be presentable in whatever you are wearing. Do not wear anything distracting. Take a minute and check your hair, your clothing, and face. Anything distracting will merely detract from your presentation.

This holds true especially for virtual presentations. Just because the audience can't see you in person, does not mean you should be any less prepared or less presentable than you would for an in-person event!

And remember to **smile**!

Slide Rules

There are a bunch of rules to follow when preparing your slide deck.

There are entire books dedicated to this subject.

Follow some simple rules:

- First, the slide deck is **not** the vehicle to transfer a bunch of technical information, statistics, and **not** to be used as handout.
- Use large fonts – put few words in each sentence – use very few sentences.
- Use graphics to **support** the concept you are trying to get across to your audience.
- Please, the slides are to **support** you the presenter – they are not the main method to transfer information. People are listening to **you**… **you** are **the** presentation.
- Slide content should be **visual**, not textual.

I'd also recommend getting, reading, and trying some slide techniques from any of the available books on the subject.

Analogies

One of the best ways to deliver highly technical content is to find the best possible analogy. Those who write well, or present well, have found easy to understand analogies that support the difficult technology they are trying to share.

This is not an easy step in your preparation. But if you take the effort to find analogies, your presentation will be more effective and sharing your information efficiently.

Use Your Time Wisely

Depending on how much time you have been allotted for your presentation, you will need to adapt for the time slot given.

I've seen many 30-minute presentations that only have 10 minutes of good content, the rest is filler. Filler in the form of long introductions, filler in the form of setting the stage, and filler in starting with the hypothesis, then walking through the experiment, barely having time for the results, and then no time to delve into the conclusion. Focus on what is important first! Leave supporting materials as supporting documents.

If you only have 10 minutes, you can stay 'up' and energized the entire time and cover all the things that need covering. It truly is possible! We instituted TEN Talks at #WLPC and not only do they provide great high-energy presentations, but they also make for wonderful professionally recorded videos on our YouTube channel for after the conference.

If you have a longer assigned time, you might want to plan, in advance, your energy levels, cadence, timing, and speed. Keeping any one style for a long period of time, even high energy, becomes boring and attention wanders.

If your presentation is part of a group presentation, be sure to keep your portion right on time. If you need to accept questions during the presentation, be sure to leave adequate time, we call it buffer time, in your content so you won't be rushed at the end and not be able to complete your portion on time.

Use Your Voice Properly

A voice can be a terribly boring thing. Especially when there is fear or a lack of energy from the speaker. A bored audience is an audience not focused and their mind will wander – thus the knowledge transfer that is the essence of a presentation will be lost.

Use your voice to convey energy, excitement, and technical understanding of the topic. Speed up, slow down, vary your cadence. Speak louder, speak softer.

Most importantly – stop.

Just stop… take long pauses when it feels right.

It will feel totally wrong. We are used to being in conversations with others, and have found when we stop, someone else picks up the load and they talk. But during a presentation, the audience is not planning on speaking up each time you pause.

You will feel uncomfortable. But the pauses allow the presenter to take a breath, change the cadence, and most importantly – wait for it… most importantly it allows the presenter to not have to use a 'filler word'.

Yes, most people use 'filler words' like uh, aww, eh, or well, etc. – to fill in the space so others won't instantly fill the gap with their own speech.

As a presenter, with no competition for airtime, become comfortable with a second of two of silence.

> *Note:*
> *This will feel very uncomfortable at first. Probably uncomfortable while you are presenting. But a pause is so much better than a filler-word.*

Speed – It Depends

The speed of your delivery must match the audience's ability to stay focused and interested.

Some people are not presenting in their native tongue. This presents a problem. Some have kept their accent from their first language and are presenting in a second language. The problem comes from the additional processing time needed by the audience to filter and decode the speakers' words. Some with a strong accent pronounce words slightly different and this difference takes time to filter and decode.

So, if you are presenting in a non-native language, slow down, slow way down. Perhaps do your practice presentations to an audience of people you've never spoken to and have them raise their hands each time you say a word they don't understand fully. It may be quite enlightening to see how many words you might use on a normal basis that your audience will have difficulty decoding.

On the other hand, if you are presenting in your first language… by all means, **speed up**! Humans can listen way faster than they can talk. What might feel super-fast for the speaker, is leaving the audience with excess time to think in between words, phrases, and sentences from the presenter. That leads to daydreaming, thinking of other things, and not focusing on the presentation at hand.

> *Note:*
> *Your brain processes words much faster than most people speak, leading to 'spare brain time' – gaps in processing that can be easily filled with distractions.*

If you naturally speak slow, practice speaking faster and faster. Use a timer and read from a fixed length piece – and work to get your speed up 30%-40% faster.

Use Real World Stories

Stories can add a lot to any explanation. It kind of ties back to the use of analogies. But in addition, it reinforces many other useful things into a presentation.

Yes, stories take time. Time you might want to use to cover **more**… more of anything. But they can provide many benefits to improve the knowledge transfer of the fewer items you can cover.

First, when you are delivering highly technical or difficult information, the audience brains get 'full'. An audience member stuck on a high data rate – even when you have a very engaging presenter… still tends to wander and not stay focused. So, the first thing a story does is allows the audience member to sub-consciously think, "Oh, I can back off my focused attention. This is just a story so I can relax a bit." That relaxation resets their ability to focus.

Second, a story can be entertaining and allow the presenter to change up cadence, vary delivery speed of words, and allow all in the room to relax a bit.

A story additionally is a chance to bring in more real-world experiences to help reinforce creditably of the solution.

But a great story does even more. And this is the important bit. A great story is most useful when used properly. It follows the same outline as a great joke.

Many jokes follow a standard format:

- The setup
- Tension or Conflict
- The punchline

A good story to a technical audience can follow that same advice. What we are after is a great punchline!

The setup is the part of the story where the presenter allows the audience to relax, de-focus a bit – and change the cadence. This also does a bit of credulity set, reinforcing the situation is a real-world example with real-people with real-problems.

Next is the tension or conflict section – continuing with the real-world situation and why there is a problem. Still allowing the audience to relax a bit.

The final part is most important. The punchline is where the real learning takes place! The punchline should be a bit shocking, surprising, but most importantly it should reinforce the technical concept you just taught! This is where the technical knowledge shared prior is solidified and remembered.

A great story leaves the audience recalling from short-term memory the difficult or highly technical content, and now ties it with a real-world situation and the solution/punchline **is** the technical content.

Stories should not sound like you are tooting your own horn or boasting. Or things like "I was so wonderful; I solved all the customer problems" – Stories are way more memorable if it isn't about you – but about the problem and resolution.

Remove Distractions

Anything that detracts from the presentation should be removed. This seems simple and a no-brainer. But so many presenters, both live, and virtual, either leave distractions, and ignore them, or purposely add distracting elements and think nothing of it.

Here is a list in no specific order on distractions that should be avoided:

- Pop-Ups on your screen – use "*Focus*" mode on your computer to keep any popups from ruining your presentation flow. (*Google 'focus' for your OS for specific instructions*)
- Make sure you have AC power connected to your presentation machine. Just in case your battery runs low, or if you don't know how to keep your laptop from going to sleep.
- Backgrounds – anything… and this includes an entire array of potential problems that will detract from your presentation.
    - Cluttered background – you know when you have a cluttered background – simply move your computer to not show the clutter – or clean up your clutter.
    - Virtual backgrounds that move… or even worse, a pseudo-green-screen effect to 'blur' everything other than your face. If used without a green screen, will cause a nasty, distracting, and un-professional moving and fuzzy halo around your head.
    - Children, pets, moving curtains, etc. As humans, we are predisposed to focus on movement. Thus, if your audience is focused on something in your background, they are not focused on you.

    Note:
    *If you want the nice 'out-of-focus' look, that is achieved by using a digital camera, **not a** webcam, that has a fast lens – this type of lens allows for a shallow depth of field where you are in focus, and the background is not in focus. The effect is called 'bokeh'.*

Test Your Presentation Setup

You can test your setup from your home or office before the presentation, but additionally, you'll want to test your setup on-site before your time slot.

Simple things like having the right HDMI adapter, and test it works with the on-site screens.

I'd recommend having your own AC adapter, and possibly your own extension cords, so you can leave the power brick on the ground, not on the lectern. (*This changes, of course, with the length of your presentation – a TEN Talk, or 30-minute talk can easily be covered by your internal battery – but be sure to change the power settings so your computer doesn't go to sleep during your presentation*.)

If the venue has a 'confidence monitor' – then you need to check if it shows the 'secondary screen' – so you don't have to swap back and forth between the presentation and the notes page.

I recommend mirroring your screen, so whatever you see, is what the audience sees. It simplifies things and makes it very consistent. (*Also see other section of this document about not using presentation notes*)

If you have a spare monitor in your practice space, you can practice using a confidence monitor and train yourself to **not** turn around and look at the screens the audience see.

Be sure to bring all your own presentation support devices.

You'll need:
- a primary computer for your presentation
- a supporting HDMI dongle
- a presentation remote
- an AC adapter
- a backup presentation device, either iPad with HDMI dongle,
- or at a minimum the presentation on a USB drive so you can easily use another computer in a pinch.

Note:

I'd also recommend saving the presentation in multiple formats. Microsoft PowerPoint, Apple Keynote, Google Slides, PDF. And practice using each of them on multiple computers. So you feel confident you can present no matter what format you are required to use.

Other potential technical issues:
- Does the site have a firewall that might cause issues?
- Does the venue have sufficient bandwidth to do your demonstrations or show videos?
- Is there dedicated RF spectrum for any demo you do that uses RF?
- Do you have a backup solution, iPad, spare copy of presentation on USB?
- Did you confirm 'focus mode' is on?
- Have you tested your presentation remote works on-site and allows for forward/backward clicking?

References

This is *very important* – we can help the audience reinforce what we are attempting to share and gain some credibility by citing the resources we used in the presentation development. As well as, and probably more important, external additional references to help the audience continue their learning.

This is where the additional textual information you wanted to share goes. **Not** in the slide deck, but in a downloadable document for review after your presentation.

Of course, you can share your slides, perhaps your experimental methodology, other supporting documents, etc. But this is the best way to share text documents rather than put the text in your slide deck.

> *Note:*
> *The references can be linked in a URL or better yet, a QR code on the final slide.*