Preparing Slides

Getting slide-making right is a difficult art, since it requires a little thought. You may be one of those people who consider that they are not gifted in the visual arts, and that this is why creating slides is difficult. Some may even question whether aesthetics is important, and it is in fact only a secondary, but vital element to efficient communication. Everyone can learn to apply some basic rules, concerning both content and design, that will make slides look as polished and professional as your audience expects, and will both amplify your message and increase the audience's understanding.

Unity is strength

A presentation is, like any document, a single unit, and though it is made up of a certain number of slides, you should keep this principle in mind as you build your slide deck.   Slides need to have a coherent style so that each slide looks as though it belongs to the set. One of the simplest ways to do this would be to use a theme. All presentation software, be it Keynote, PowerPoint, LibreOffice, Canva, Prezi or whatever, allows you to choose a theme and stick with it, and in some cases, this can be a simple way to make sure all your slides have an identical style. However, sometimes the decorative backgrounds that are chosen for slides can compete with the content that you want to use, or can force you to reduce the size of an illustration so that it becomes barely usable. If this is the case, then prefer substance over style, use a blank background and apply the design rules which you will learn in this chapter for an equally professional (but also more individual) look. The new "slide design" feature in recent versions of PowerPoint can be helpful, as long as you make sure your text remains legible, and that the decorative features do not outweigh the information on a slide.

If we consider that a set of slides is a unit, then we also need to consider the links between them. When we create a written document, we always aim to link from one idea or paragraph to the next, and this principle also holds true for slides. In order to link slides from one to the other as seamlessly as possible there are two main techniques, one visual and one verbal. To understand them we can again refer to our movies and TV analogy that we spoke of in the previous chapter.

Visual transitions: Think about the opening credits of your favourite TV series.   One of the characteristics of opening scenes is that the editors need to collate images from very different scenes and make them into a coherent unit. Since the theme music is playing, this cannot be done with words, so editors frequently rely on what is known as the match cut to associate elements. This editing technique will use colour matches, such as the juxtaposition of whiskey and gold in Deadwood[1], shape associations, such as those we see in the opening sequence of Counterpoint[2], or simply ideas and associations based on common objects such as a hand or a pistol. If your slides are highly visual, you might find a way to link elements using this technique.

Verbal transitions are probably easier to use, and also have a corresponding editing technique known as the L-Cut or split edit. One example of this is the 1975 movie Jaws. When the trailer was being made the producers wanted to show the shark, since a lot of money had been spent on creating this life-sized model for special effects. However, director Steven Spielberg refused since he considered that it was not necessary, and so instead of footage of the shark, we see movement, but most of all we hear the famous musical theme, and we know that the shark is coming. In a similar way in any TV series you will hear the police or emergency service siren before it appears in the next scene.   To use this technique in your presentation, consider what elements on one slide can be used to verbally link to the next.

What are slides made up of?

A good presenter has no notes, so the slides must function as a prompter, allowing the speaker to advance through the ideas without hesitating. The most obvious choice for prompting is **text**, but text on slides should not be used carelessly.

Firstly, any text you use should be limited in quantity. If there is too much text on a slide you will be tempted to use it as a crutch and end up reading what is written on the slide without adding much additional information. Some people call this *Karaoke PowerPoint*, and since a conference is not a drunken night out this is a good indication that it should be avoided at all costs. Indeed, since the audience will also read any text on a slide, they will start reading it and stop listening to you. And since people read at a minimum of 300 words per minute, and a speaker will speak at anywhere from 140-190 words per minute, a time lag becomes a problem immediately, and the speaker has lost the audience's attention. So never use full sentences, never go beyond one line, and avoid using more than 25 words on any one slide.

Type should be legible. Bear in mind that while you are sitting in front of the computer you may think that the text is perfectly clear. However, stand up and move backwards until you are about a couple of metres from the screen. If everything is still readable you should be good to go. It is not practical to suggest font sizes, since at an identical point size, fonts vary a lot in the amount of space they occupy on screen.

Another choice you will need to make concerns what font to use. Should you prefer a serif or a sans-serif? Serif fonts are those such as Times New Roman or Georgia which have serifs (or small lines or strokes) attached to parts of the letters, and which enable a reader to differentiate between letters more easily. It is one of the reasons that most books are printed in serif fonts. This type of font has a more traditional quality to it, and they can be used comfortably on a slide if you prefer their classical style. Sans-serif fonts such as Arial or Helvetica do not have these distinguishing features, and have a more modern appearance, which explains why we see a lot more of this type of font on the internet. Either of these two types of font is perfect for a presentation. The fonts to be avoided often have names that indicate other uses. For example, anything with *comic* in the title is meant for comic books, and therefore not appropriate for a scientific presentation. The words *script* or *titling* in its name also suggest that a font is not suited to slides.

Any text used on a slide should be structured. Presentation software enables you to use hierarchy to organise your ideas into conceptual levels, often adding bullet points to this structured organisation. You might find that often the structure suffices, and that these additional elements make a slide seem "busier" than it truly is. Remember that on a given slide you only have a limited amount of space in which to place your content, and any extra elements, be they bullet points or decorative backgrounds, will eat into that precious screen space. In addition to structuring text spatially, it also needs to be logically and linguistically structured. That is to say that all items on the same conceptual level must be of the same grammatical type, so if the first is a verb, stick to verbs for the others, if it is a noun phrase then continue with nouns, and so on.

One of the most common mistakes we see on slides is pointless repetition. You should aim to eliminate as much text as you can. An anecdote that is often told about pointless text is that of a fishmonger's shop where the owner hung a large sign saying, "fresh fish sold here". We can eliminate any word that provides no useful additional information in the context. This means that we can get rid of *fresh*, since we can assume that all the fish that he intends to sell must be fresh. We can also eliminate *fish* since the customer can probably see (or at least smell) what is being offered for sale. Given that this is a shop, the term *sold* is also pointless. Finally, given the proximity of the shop and sign, the word *here*

is not useful either. From this rather extreme example we can see that with a bit of thought it is often possible to remove words that add nothing to a slide, and indeed, the best slides have more illustrations than text.

In English we have an expression that says a picture is worth a thousand words, and this is very true for slides. As much as possible, the speaker should provide the words, and the slides should illustrate what is being said in order to help the audience assimilate the speaker's ideas.

The first rule for **images** is that they must be illustration not decoration. All images should be linked to what the speaker is saying, and the speaker should refer to the images as the presentation progresses.   In a further chapter we will consider how to approach talking about an illustration, but for the moment remember to select your images for their meaningfulness. They can be photographs, graphs, infographics, diagrams etc, but should help explain a point and be of good quality. Like text, anything comic should be avoided.   When rearranging items on screen you may need to change image size, so remember to increase or reduce via the corners of the image to avoid loss of the additional proportions and the strange extrusions that can occur when resizing is done haphazardly.

Another wonder of the twentieth century is that we can use **colour** in any computer designed document. This applies to any of the constituent parts of your slides, text, background, arrows and lines, etc.   However tempting it may be to dip into the colour palette frequently, consider how many colours overall are appropriate as well as their use. It can be useful to remember the mathematical problem originally posed by Francis Guthrie in the 1850s in which the aim was work out how many colours were needed to colour any map with as few colours as possible. The problem was not solved until 1976 when it was confirmed that any map can be coloured with only four colours.   Transposed to slide-making a maximum of four colours gives us a background colour, a main text colour, and two accent colours to use for contrast. We also need to check that the colours work well together, and there are many tools available on the internet to help create harmonious palettes. We can also check whether our selected palette contains enough contrast between the chosen colours for colour blind users. There are premade palettes or tools to check whether the colours work for the colour blind on the internet. A search for "color/colour blind palette tool" will provide a few possible aids.

Although it was first created in 1985, when PowerPoint 97 was first released users were spellbound by its capabilities. Among the latter were two that would drive people mad later on, since they became the most overused and least useful feature of the software. **Sounds and animations** added bells and whistles to even the dullest presentations, and text would appear letter by letter accompanied by the sound of a retro typewriter, and one slide would fly off to the left to be replaced by the next with a dramatic *whoosh* sound. The animations and transition features quickly became one of the most criticised parts of the software, and usability experts as well as psychologists began to point out that these things were a source of cognitive dissonance which in fact hampered audience understanding. Good presenters do not need this kind of razzmatazz to capture the audience's imagination and will only use them if they bring some additional meaning to what is being presented. For example, a chronological presentation might use a sliding transition to illustrate moving horizontally or vertically along a timescale. Sounds would accompany an illustration of a normal and an anomalous EKG for example.

Making content look good

If you are giving a presentation on a given topic, it is highly likely that you have expertise in that topic, and that the content itself poses less of a problem than how to present it. The first phase of preparing a presentation once you have your outline, is to make your slides. The second is preparing to deliver it, which will be covered in another chapter. Even the best-planned content can fail the test of audience assimilation if it is not designed to be easily understood, and good design aims to do just that.

Graphic designer Robin Williams published a wonderful book in 1994 called *The Non-designer's Design Book*. She had realised that more and more people had access to computers to produce documents, and that most people failed badly at the task, so she came up with four basic principles which anyone could apply to the documents they produced to radically improve their legibility and clarity.

1. Proximity

This principle follows the notion that the closer two things are, the more likely we are to consider them as a group. In a similar way if we place two things opposite each-other they invite comparison.

2. Alignment and Spacing

The human eye is capable of noticing when two elements are not in line. Disharmony is more likely to be spotted than when things are harmonious. All presentation software enables the user to select elements and align them horizontally or vertically with a simple mouse click. Just as important is the use of the spacing feature which allows elements to be spread equally along the horizontal or vertical axis.

3. Repetition

By repetition Williams was not referring to repeating words, but repeating styles, and by using coherent elements from one slide to the next we are assured that our slide deck is a unit. For example, all titles should be placed in an identical position, in an identical colour, font, size and weight on each slide. Anything that differs causes the viewer to question why, and adds to cognitive load.

4. Contrast

Sometimes we need to draw attention to what is salient. On an image we might use an arrow, on a table we might highlight what is of interest, and for text we have multiple ways of adding contrast: different colours, bold face, larger font size, italics. As a rule of thumb, it is better to avoid using underlining since this is generally associated with hyperlinks, in addition to reducing legibility as the underlining cuts through any descenders in the text. (the letters g,j,p,q and y contain descenders)

Two vital slides are those we see at the beginning, and at the end. The first slide is the initial contact with audience, even before the speaker begins the presentation. It should contain a clear (and if possible concise) title, the speaker's first name and surname, the logos of relevant affiliations, and an optional date. Illustrations here should be meaningful. The final slide is the conclusion, and is the only place where a full sentence of up to 15 words is appropriate. It should contain a single message, not multiple points which will not be retained by an audience.

Remember that your outline slide should not appear in the final version, but serves as a guide for organising your presentation logically. Equally, do not add an "any questions?" slide at the end, but just invite the audience verbally to ask you questions. By making your conclusion slide the final one people are more likely to remember your presentation, and this maintains the link between everything you have just said and the questions that people will ask.

References

Deadwood opening sequence https://www.youtube.com/watch?v=1H1BjPmEBm0

Counterpoint opening titles https://www.youtube.com/watch?v=VZze5DHxbF4

Travail personnel

Visiter les deux liens vidéo ci-dessus.

Regarder la vidéo de David J Phillips à https://www.youtube.com/watch?v=Iwpi1Lm6dFo qui devrait complémenter ce que vous avez lu.

Ne vous sentez pas obligés à préférer les arrière-plans foncés si vous préférez le clair. L'essentiel est qu'il y ait suffisamment de contraste pour bien voir et comprendre l'information sur une diapositive.