How to Design and Deliver Effective Computer Presentations

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Computers have become a part of our daily lives, transforming our most mundane tasks into a digital deluge. Computer-generated and -conferred productions are becoming more common at meetings and presentations of all types. Learning to design and deliver such a presentation effectively will save time and enhance the quality of the message conveyed to the audience. Author's address: Large Animal Clinic, University of Illinois, 1008 West Hazelwood, Urbana, IL 61801. © 2000 AAEP.

Introduction
It would be reasonable to assume that most individuals reading this abstract will have spent countless hours in university lecture halls, hotel conference rooms, and continuing professional development courses. The transfer of information is key to becoming proficient in one's field and in staying current with new techniques and procedures. The formal transfer of information takes place in many ways, but traditional methods no longer need to be observed. Progress has taken us from the blackboard, through overhead projectors, and into slide presentations. Over the last several years, the computer has revolutionized the way we process information in general, so it seems reasonable that it should improve the way we communicate as well. This paper presents some basic concepts and ideas for computer presentations and multimedia applications.

Why Computerize your Presentation?

- Ease of Creation
- Ease of Organizing the Presentation
- Ease of Altering the Presentation
- Ease of Practicing the Presentation
- Ability to add:
  - Layering
  - Animation
  - Pictures
  - Video
- Ease of Presentation
- Ease of Archiving
- Economy

Ease of Creation
There is definitely a learning curve for almost anything to do with the computer, and computer presentations are no exception. Hopefully this paper will present some ideas that will alleviate much of the anxiety and simplify the learning curve as much as possible. This is an especially salient point since most slides are now computer-generated, which means the leap to computer presentations should be a small one. Once the software has been introduced, there is almost no end to the creativity that can be employed in an effort to get a point across to
the audience. Templates can be formulated that will allow for the simple creation of presentations.

Ease of Organizing the Presentation
Anyone who has given a slide presentation will recognize the inconvenient and often agonizing effort that goes into organizing the slides. This process is most often marked by piles of $2 \times 2$s scattered over a desk or tabletop while sorting takes place by holding them up to the light of a lamp, radiograph viewbox, sun, or moon. With hastily prepared presentations, it is not uncommon to see slides that are placed backwards or upside down in the projector. Computerized slide presentations allow for easy organization by using the “sort” function (Fig. 1). This converts the computer screen into a large, flat surface with proper backlighting for viewing and rearranging the slides.

Ease of Altering the Presentation
Once the draft presentation has been created, it is very easy to change it. Slides can be added, deleted, rearranged, or modified at any time. In fact, it is quite easy to do this just before, or even during, a presentation. Also, it is simple to turn drafts of one presentation into a unique presentation for a completely different audience. This is especially convenient when complicated drawings or word slides can be recycled.

Ease of Practicing the Presentation
It is often difficult to practice a presentation, especially for those who don’t have access to a slide projector prior to the real thing. Again, using the sort function, this is incredibly easy for the computer user. The order of the slides can be reviewed in this manner or in the actual presentation mode. Because the computer is used during the presentation itself, practicing in this manner allows the presenter to experience the exact presentation atmosphere, thereby refining the timings and transitions. Some slide show software will even time the practice sessions to allow the author to revise the show if needed.

Ability to Add . . .

Ability to Add Layering
It is the author’s opinion that layering an electronic slide show may be the most important reason to go digital. Failure to do so negates the biggest advantage the computer presentation has to offer. It is not uncommon to attend a lecture where the majority of slides are word slides. Of these, many contain so much information on each slide that it becomes difficult to follow the thought process. One of the reasons for this is that many presenters are reluctant to place related topics on different slides for fear that the flow may be interrupted.
As a result, the font size may be reduced to accommodate the information overload, making it even more difficult to follow this “busy” visualization. Another reason for the slide overload may be related to economics, because there are usually charges levied for each slide produced.

From a practical standpoint, it becomes difficult to slowly discuss each point on a busy slide because the audience is either reading ahead or frantically attempting to copy down all the text and not paying attention to the point being discussed. This problem is conveniently solved in a computer presentation via layering. Layering means that the chosen point, drawing, or photograph is only revealed when the lecturer is ready to discuss it. In this way, all the related information can be conveniently kept together, but the slide still remains easy to follow (Fig. 2).

**Ability to Add Animation**

Although this may be considered by some to be a gimmick, animating a slide show can stimulate the audience’s attention or help get a particular point across. Unlike full-length feature film animation, slide show animation simply means that objects or text can be brought in from off screen or appear to move on-screen in real time (Fig. 2).

**Ability to Add Pictures**

Many presenters rely on dual projection to incorporate pictures into a lecture. By using a computer presentation, the need for dual projection is eliminated because pictures and text can easily appear on the same screen. In this way, labels or arrows can also be applied to help demonstrate an area of interest (Fig. 3).

**Ability to Add Video**

For those with a more advanced multimedia presentation involving video, clips can be added directly to the body of the slide show. The video can be set to play automatically or a control strip can be added to allow the operator to move forward, pause, or even play the video backward to emphasize a point. It should be noted however, that video clips may significantly increase the size of the slide show file.

**Ease of Presentation**

Many presenters find it difficult to give a talk without seeing the slides directly. More importantly, the audience often finds itself abandoned by a presenter who seems to talk directly to the slides and not to them. A computer presentation alleviates these problems by allowing the speaker to view the computer screen in front of them instead of turning around to view the screen on the wall. This keeps the line of address headed toward the audience and not toward the wall. In addition, the mouse arrow on the screen is an effective way to highlight text or point to a picture.

**Ease of Archiving**

Once a presentation is created, it can easily be stored for future use. Templates and presentation drafts can be altered to produce new presentations, update information, or add slides. Simple word slides and slides with line drawings or a few pictures are economical on space and easily stored on the hard disk or even a 3.5-inch disk. Presentations with many pictures or videos may need to be stored to an external device such as a server or a Zip drive. Alternatively, a large collection of slide presentations could be written to a CD for safe and easy archiving.
Economy

Although there are initial investment fees for hardware and software, there is no cost involved in producing each slide presentation. Furthermore, most of the initial expenses involve components of a system that may have already been purchased with the standard computer equipment. Presentation software packages are often included as part of an office software package. The economy of this method of presentation means that speakers will tend to produce more articulate and effective presentations by producing more individual slides and by using some of the aforementioned techniques such as layering and animation.

Basics of Computer Presentations

Presentation software includes sections for constructing the slide show in addition to those for actually delivering it. Once the presentation is created, the speaker must have some way of projecting the computer screen so the audience can see it.

Creating a Presentation

Masters

The easiest way to create a presentation is to start by designing the slide masters to be used (Fig. 4). The parameters set by the author of the presentation include the background color and design, levels of text division, and text characteristics. The levels of text division consist of Title, Subtitle, and Body...
placeholders. The text characteristics include the font, style, size, and color of each text division. These parameters are usually set for the entire slide show, but they may be as diverse as the author desires. For the neophyte, basic slides and color patterns are usually the safest. Some fonts, such as Old English, may be difficult to read at a distance and may be best avoided except in specific circumstances. Color mixtures are also up to the individual, but certain combinations are more legible than others. For example, yellow on blue is acceptable whereas red on blue is not. It is advisable not to use more than 7 colors together, nor is it recommended to use too many strong colors, although adjacent colors should possess sharp contrast so viewers can see the boundary. Slide masters should remain simple if one is just learning to create presentations. As more experience with the program is gained, more innovative styles can be implemented.

Outlines
Slide presentation programs allow the author to create slide shows in one of two ways: either in slide mode or via an outline. The latter is discussed first. ‘Outline mode’ allows the author to type in word slides rapidly in a text type of format (Fig. 5). The first line of each slide in outline mode corresponds to the title. By hitting ‘Return’ and then ‘Tab,’ subsequent lines will appear as subtitles or body text. From outline mode the author can easily switch to slide mode at any time to view the individual slide or add graphics.

Slide Mode
This mode is the actual format that the slides will appear in on the screen for presentation. It is much slower to prepare word slides in this manner, but some individuals prefer to see their work as it is produced. Alternatively, it is easier to add graphics and other objects in this mode. One simply ‘clicks’ on the appropriate template box to add text or clipart (Fig. 6).

Inserting Objects
By utilizing the ‘insert’ command, objects can be placed directly into a slide show. Examples include digital pictures, videos, graphs, or even sounds (Fig. 7).

Transitions
Slide transitions are used with onscreen presentations to keep the audience’s attention and add a level of professionalism. As with some of the other effects, transitions can be very sophisticated or not used at all. The same transition style can be used throughout or it can be changed for each slide or even between layers within a slide. Some examples are ‘wipe right’ for text, ‘box out’ for an important picture or ‘fade’ to simply break the monotony of the presentation (Fig. 8).

Fig. 6. The picture on the left illustrates how to select the desired layout for each slide, while the one on the right illustrates what appears on a new slide while working in ‘slide mode.’ By simply clicking on each field, the title, text and clipart can be added.

Fig. 7. An example of how simple line drawings can be added to a presentation to illustrate a point.
Projecting a Computer Presentation

Digital

Once the presentation is completed, it must be projected in some manner so that the audience can see it. Over the last several years, this has become much easier because most venues now support digital projection. Many lecture halls and convention sites are now equipped with digital projectors, and possibly even dedicated computers, for this purpose. If the speaker must supply his or her own laptop, a special digital output lead is needed that connects to the back of the computer. This is supplied by the venue and feeds the digital signal directly into a projector that displays the computer screen on the wall. Users of older Macintosh laptops should note that most digital projectors are designed for use with a PC and special, albeit inexpensive, adapters are needed to ensure compatible connectivity.

Liquid Crystal Display Panels

Liquid crystal display (LCD) panels function as a lower end digital output device. Like the digital projector, a digital lead from the back of the computer is fed directly into the LCD panel. The panel contains the image of the screen, much like a laptop computer screen but without the innate backlighting. This must be provided externally by an overhead projector. The LCD panel is placed on the overhead projector and it is projected onto the wall. It should be noted, however, that LCD panels often require a stronger than average light source within the overhead projector. 400-watt bulbs are usually recommended for adequate projection quality. With the advent of inexpensive digital projectors, LCD panels are becoming almost obsolete.

Analog Projection

In some rare situations, converting the digital signal back to analog prior to projection may be required. Although many lecture facilities have or will be installing direct digital capabilities soon, most currently have video projection competence. With an inexpensive analog-to-digital converting (ADC) box available for some computers, the monitor image can be projected through any television or video system. Using this technology, the video cable plugs into the back of the computer, as with the digital system. The digital signal is transformed to analog in the ADC box. The analog output signal can then be hooked up to any ‘video in’ system for display on a television or projection by a video projector. The ‘video out’ lead in this system tends to be a phono line, which means the functional distance between the ADC box and the projector can be longer without much loss in signal quality.

References