



# DESIGNING MICRO RESEARCH AND DIGITAL POSTERS

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## Digital Communications

One may focus on three key areas within the digital communications field; Social networks, Content publishing and Analytics. Like any research or teaching plan, this must be considered as an evolving and responsive process, adapting to new information and offering new insights and/or alternative approaches. This iterative cycle makes use of three key platforms to distribute, refine and enhance the 'chosen' message.

### SOCIAL NETWORK PLATFORMS

Facebook, Google Plus, LinkedIn, Twitter etc.

### CONTENT PUBLISHING PLATFORMS

YouTube, Wordpress, Email Lists etc

### ANALYTICS

Google Analytics, Seesmic, Hootsuite etc

## Enquiry, Problem based learning and Micro Research

**Enquiry based learning** is any approach to learning that embraces the concept of enquiry.

...it promotes personal research...the student becomes more familiar with the multifarious resources at their disposal, such as e-journals and databases. There it the opportunity to support one another in research and explore different avenues of information. The whole experience becomes one of interchange where students share opinions, research and experience in order to achieve an end result.

*Khan & O'Rourke, 2005.*

**Problem based learning** is learning that results from the process of working towards a resolution or understanding of a problem.

"They [medical students] were bored and disenchanted when medical education should have been exciting. The committee noted that medical education didn't become exciting for students until residency training, when they were working with patients trying to solve their problems. They decided that from the beginning of school, learning would occur around a series of biomedical problems presented in small groups with the faculty functioning as "tutors or guides of education"

*Barrows, H (2000).*

**Micro Research** may be considered as a practical interpretation of the former, allowing learners to engage in a discrete body of work that elicits a deeper understanding and develops further adaptive and transferable skills and competencies.

## Effective Poster Design and Production

### 1. The Message

### 2. The Design

- Size Matters (landscape vs portrait)
- Choosing Colour and Graphics

### 3. The Production

- Lamination, Mounted, Double side sticky tape, Blue tack, Velcro tags goo!

### 4. Revisions & Awareness

- Accessibility
- Time and Tinkering...

## ONE KEY CONCEPT

Begin by writing the abstract, be clear and precise about the theme, do not over complicate, keep to one main thesis, question or hypothesis.

Often the simpler the message the more effective the poster, it needs to be understood at a glance. Additional details can be provided in an accompanying paper.

The message is often conveyed in a myriad of ways; it may include the design of the poster, the chosen font face, the colour scheme, the graphics – treat the creation of the poster as one process i.e. to deliver the chosen message.

## TASK: THE DESIGN

- Choose a poster to work on; brainstorm and identify key words or themes of the abstract/title

### Sketch Out a Plan, Sub-Divide Poster into Component Parts

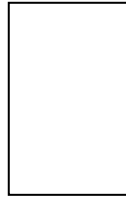
How many themes are there? Edit/amend and sub-divide the page into the relevant amount. These compartments will form the 'guiding boundaries' of each area to be presented.

*Decide* what orientation your poster will be - \*can you make this choice? (Does the venue require a certain format? Is there a Conference Template? A School Template?)

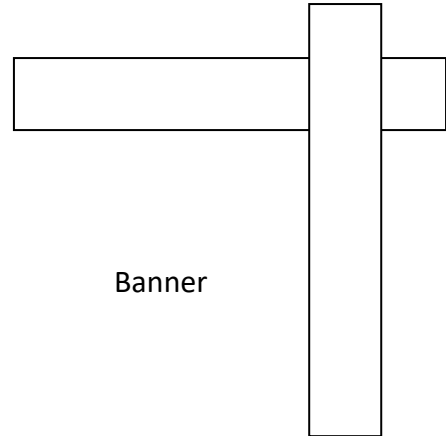
*Decide* the size you require (once again take note of the venue/conference requirements)



Landscape



Portrait



Banner

#### Common Paper Sizes

A0 paper	841 x 1189 mm
A1 paper	594 x 841 mm

#### Title Impact

This will be the focal point of your poster, it needs to be succinct, catchy, or colourful, clear and possibly LARGE. This may well provide the hook that draws in the audience, be it a relevant discipline or field, in vogue or newsworthy terminology or simply an arresting design.

# least

The title text should be at **least** five times bigger than the body font. Try to

use Sans Serif Font for Titles and Headers, this increases readability e.g. Helvetica, Verdana. If necessary (i.e. where large amounts of text are required) use Serif fonts, it is easier on the eye and helps guide one through large bodies of text e.g. Times New Roman, Palatino.

#### Sequence Content – Use of Numbers And Colour

Having divided the poster canvas into relevant areas (per theme, keyword, problem etc.)

*Decide* on a logical way to link each item.

By the inclusion of graphics and other design materials you need to be sure that a reader is able follow the poster content. The simplest and most effective way is to number each area. Alternatively colour or graphics may be used to indicate a 'path' through the texts.

#### Less Text More Graphics – Self Explanatory

Remember a poster is a 'visual' display. You wish to encapsulate your thesis in a demonstrable and effective manner, do not be afraid to edit out large amounts of text. Think how a graphic or chart may convey the same content. Attempt to write in an abridged and colloquial manner. Allow headers to provide the key point.

The use of graphics can often enhance understanding of what may be a complicated process or concept. They may also catch the attention of passers-by, and often will aid in remembering the actual poster/abstract on display.

If required a paper may always be provided as a supplement to the visual representation that is the poster.

### Which Graphics?

There are many places to 'find' images and graphics on the Internet – the question arises do you have permission to use them? Do you own the copyright? Or is there a licence agreement of use?

Copyright protects creative or artistic works - You should only copy or use a copyrighted work with the copyright owner's permission<sup>1</sup>

*Image Copyright:* You may use any photographic image that you have taken and own. You are not allowed to use images from other sources (books, magazines, websites etc) without first gaining written permission.

Task: Image Clearance

*Individually* take the time to undertake Web2Rights online IPR Diagnostic Tool.

### Section Headers Impact

After the sequencing the next most effective target for attracting and maintaining the audience are the section headers or sub-titles. Try to encapsulate the key message in these, let them act as guides to move the reader through a poster, make them positive and arresting in nature.

### <sup>2</sup>The Psychology and Practice of Colour

The choice of colours one uses in a presentation will have an impact on the audience. Here are a few key points to remember:

- One can use colours to convey warmth and tone
- Select one background colour (try to avoid solid colours and textures)
- Try not to use too many text colours (c.12% of males suffer a colour deficiency)<sup>3</sup>
- (If possible) use a colour wheel to select appropriate contrasting and complementary colours<sup>4</sup>
- Use colours as a navigation aid
- (If possible) scout and/or enquire about the venue (one needs to take into account the setting, mounting and lighting facilities) these may differ vastly from one place to the next.



<sup>1</sup> Ireland: Copyright and Related Rights Act 2000

<sup>2</sup> Colour wheel

<sup>3</sup> <http://www.toledo-bend.com/colorblind/index.html>

<sup>4</sup> <http://office.microsoft.com/assistance/2002/articles/ppChooseRightColors.aspx>

## PRODUCTION

### Poster Printing and Finishing

Having completed your poster (and after numerous edits) you will need to print the finished product. If you have local access to a large format printer, be sure to check that the paper-weight and finish is suitable for posters e.g. medium to heavy (60-100gsm) and a semi-matt or gloss finish.

If providing the file to a print agency, ideally save it as a PDF (Adobe's<sup>5</sup> Portable Document File Format), this will lock down all fonts, graphics and colours you have chosen to use and ideally provide an 'easy' print run.

Often print agencies will offer to 'lamine' the final poster print, this will make them more robust and last longer, however this may be quite expensive and mean that they are less easy to 'roll' for travelling (perhaps after your presentation, you may wish to laminate or mount the poster (on light board) so that it may be suitable for framing).

Whatever finish you choose be aware of the local venue and its display procedures; will they be mounted on fuzzy boards (thus requiring velcro pads (always remember to bring positive and negative stickers)); will they be wall mounted (requiring tape, or blue tack); will they be virtual (requiring a PDF file or .jpeg image).

### Planning – The Count Down

Although posters may appear effortless, they require a great deal of planning, preparation and production. Be sure to factor in enough *time* to produce the poster you envisioned.

When	What
4 weeks out	Write an abstract, define message Create poster plan, subdivide and section
3 weeks out	Create first draft of poster, identify possible graphics Create graphics, charts, acquire suitable images Edit the draft ruthlessly
2 weeks out	Distribute draft for peer review (round 1) Make amendments & edits suggested by peers
1 week to go	Distribute draft for peer review (round 2) Apply final edits save as PDF Make backup to CD or USB key Produce final print Pack poster in travel tube, pack 'sticking materials'
0	Present poster, take plaudits, questions and queries

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<sup>5</sup> <http://www.adobe.com>

## REVISIONS & AWARENESS

### Accessibility Issues

- Ensure there is a high level of contrast between the background and text - dark text on a light background is preferable.
- Avoid textured backgrounds that make the text difficult to read.
- If photographic backgrounds are used, adjust the transparency.
- Include a textual description of any images you use (similar to 'alt' tags in web pages).
- A background should not distract from the main text in the foreground.
- A plain solid and light colour is recommended.
- Consider the possibility of a 'digital poster'<sup>6</sup> utilising an LCD/Plasma screen to display an 'animated' version of your work e.g. live creation of charts, talking heads, experimental sequences, voice over etc.

### Graphics Issues

Providing good quality graphics (e.g. diagrams, drawings, and photographs) for use on posters is essential. To achieve the best results (maintaining definition and colour balance) one must understand the difference in formats that may use. There are two main types: bitmaps and vector images.

### Understanding File Formats

#### **Bitmap images.**

- Bitmap images are graphics defined as a collection or "map" of individual dots or pixels. Photographs and other scanned pictures are always rendered this way.
- Bitmap formats supported by Microsoft PowerPoint include: CompuServe GIF (only in PowerPoint 97 and over), Tagged Image File Format (.TIF), and Joint Photographic Experts Group or JPEG (.jpg).
- *Adobe Photoshop* allows one to edit bitmap images and save them in a format of your choice.

#### Vector images.

- The majority of vector images are created in drawing/art packages. Each image is defined as a series of lines and fill, because of this vector images may be resized very easily with little or no loss of quality.
- Vector formats supported by PowerPoint include: Windows Metafile (.wmf), and Enhanced Metafile (.emf).
- One can draw (vector) objects with PowerPoint's own drawing tools, import them from external drawing packages e.g. Adobe Illustrator or access the clip art galleries in Microsoft.

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<sup>6</sup> See Screencasting below

## Creating a Digital Poster

There are any number of ways you may create a digital poster, by creating a posting in *padlet*, by animating a series of slides, by producing video, by simply designing a web page etc. as with anything you will need to decide 'why' and 'how' you will undertake this.

Task: Content, Context and Concept

**What?** Identify if there is a necessity to enhance your work within the field, what kind of content might you create?

**Why?** What is the purpose of going digital, what does it bring to your message etc.

**How?** Will you undertake this endeavour; do you require new skills, software or time?

Using a ScreenCast

A screen cast is the result of capturing a series of actions performed by a user on the screen of their computer. Where a screen shot is a single image, the screencast may provide an annotated (by audio and/or text) mini-video of these interactions.

Similar to a podcast the screen cast is ideally a personalised review/presentation of a specific topic or activity. By its nature, it is easily distributed and widely accessibly, either by streaming or direct download [file sizes being relatively small].

How do I ScreenCast a poster?

With your poster design complete, consider what you may use (software<sup>7</sup>) and how you may enhance the message (digitally)...

Script, Storyboard and Set

If there is to be an audio track, then prepare what has to said; be clear, articulate and concise – even take the time to write a script. If the screen cast is only 3-7 minutes long, you need to have your 'story/presentation straight' (!)

Consequently, map where (on your computer) and how (which software) you will use to explain, explore, compare, demonstrate, apply etc. Will it be in a PowerPoint presentation, will it be in a Graphics package, and how will you animate, highlight or simply provide voice over...

CAPTURE.

Ideally you will have mapped out the timing and the flow of the piece. Consider carefully the means by which you will capture the audio (in-built mic, in-line mic, a test may be required to ensure there is appropriate audio quality) and carefully synchronise your screen actions with the voice over.

EDIT (OR NOT!)

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<sup>7</sup> See list and resources below



If the 3S' have done their job, then there should be little or no editing required other than preparing the piece for export... **HOWEVER don't hesitate to just give it a go!**

## COMPARING SOFTWARE

This is a short overview of some key examples and things 'you' need to know... I have purposefully listed some of the free and open software first – as this would be a good place to start before pursuing the proprietary and potentially expensive licenced products. *Please note this list is not exhaustive, a quick search revealed another 50+ variants!*

Also don't forget you can save out your PowerPoint or Keynote as a movie file...

Task: Tool Review

Identify and appraise potential tools (see lists below), before you dive in!

Consider: What does it do? Is it easy to use? What does it cost? Is there support? Is it flexible, adaptable and accessible? What are the pitfalls?

Software / URI	Platform	Audio	Editing	Licence (Cost)
<a href="#">Jing</a>	Win/Mac	Yes	No	Freeware
<a href="#">Dahu</a>	Win/Mac	No	Yes	Opensource
<a href="#">Screencast-o-matic</a>	Win/Mac	Yes	No/Yes	Hosting Fee / Pro Version: €11
<a href="#">Snagit</a>	Win/Mac	Yes	Yes*	c.€30
<a href="#">Camtasia</a>	Win/Mac	Yes	Yes**	c.€150
<a href="#">Adobe Captivate</a>	Win/Mac	Yes	Yes**	c.€225

## Online Resources: (Accessed 10.16)

General Resources

Powerpoint Templates

Preparing graphics for use in PowerPoint.

A site explaining and demonstrating the issues of colour deficiency.

Paper sizes

Searching for Images...

JISC UK HE Digital services provides a thorough guide

Search tool for 'anything' under open (creative commons) licence

And a collection of further search facilities

<http://images.google.ie>

[www.picsearch.com](http://www.picsearch.com)

[www.flickr.com/creativecommons/](http://www.flickr.com/creativecommons/)

<http://commons.wikimedia.org>

Concept Mapping software for alternative poster designs

Freemind, Vue Project tool, CMap, Bubbl, Gliffy

Some Info-Graphic tools

easel.ly, piktochart.com, infogr.am, infoactive.co

Some Presentation Software

<http://doc.google.com>, Open Office, Voicethread, Slideshare, <http://prezi.com>

Some Graphics Tools

Corel draw, Staroffice Draw, Inkscape, the GIMP, Adobe Photoshop

Good Resource page Courtesy of Jane Hart

<http://c4lpt.co.uk/directory-of-learning-performance-tools/graphics-and-infographic-tool>

<http://c4lpt.co.uk/directory-of-learning-performance-tools/presentation-tools/>

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