

# Electronic Presentation Sans Microsoft PowerPoint

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## Overview

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2. What's so special about electronic documents?

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2. What's so special about electronic documents?
3. Options
  - Microsoft PowerPoint
  - T<sub>E</sub>X friendly solutions
  - Other (Magicpoint)
4. Tips and techniques
  - Figures and Images
  - Algorithms and Mathematics
5. Resources
6. Where do we go from here?

## About Electronic Presentations

- Many disadvantages, but a few reasons to go with the tide
  - Classic: Saves paper, plastic. Easier to retrieve and store.
  - Often Attractive.
  - Occasionally beneficial: Easier to navigate. Easier to teach (for example, spatial data structures). Easier to learn.
- Things to keep in mind
  - Page layout: Matching screen dimensions, aspect ratio
  - Adding emphasis: Color, animation
  - Adding links: Enabling the user to navigate

## This Talk Assumes

- You know that content is more important than form
- You are clear about what you want to say, and how you plan to say
- You now want to follow
  - Good practices
  - Tips and techniques

## General Issues

- Parallel structure is preferred
- Full stop (period) is not exactly necessary
- Two or more bullets in an itemized environment is preferred. Otherwise,
  - Maybe something is wrong
- Recommended word quotas per slide are 10 words per bullet, and about four to six bullets

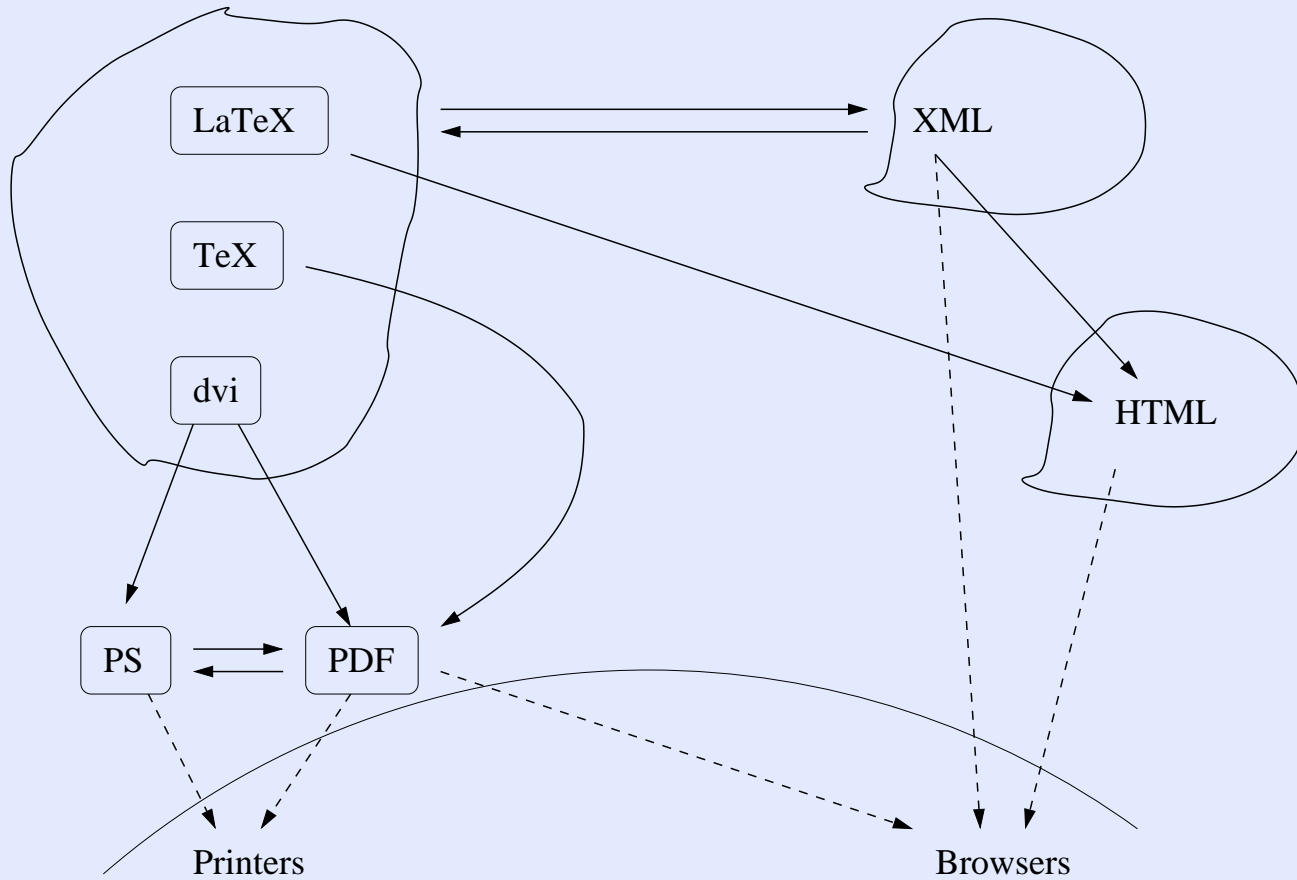
## About Microsoft PowerPoint

- Front runner (for non technical presentations)
- Several advantages: Robust, Large number of templates, Excellent integrated graphic tool, animation support, link support, WYSIWIG, audience notes
- A few disadvantages: Not light weight, poor math support, imprecise placement, limited export options
- Key Point: Your technical report is not written in PowerPoint!
- Magic Point has different limitations

## Turning to L<sup>A</sup>T<sub>E</sub>X And Friends

- Why? Why Not? (Compare previous slide on disadvantages)
  - What's possible: Use of color, links
  - (In addition) What's the promise: Beautiful math, More control
  - What's the drawback: Embedded and other animation, Runtime Overlay
- How?
  - Use an appropriate document class: slides, foils, seminar
  - Use appropriate packages: color, hyperref
  - Use other tools: Acroread, Browsers (IE), mpegplay, realaudio
- Examples to follow

## Overview of Strategies



## Comparisons of Strategies

- Can't stay with `dvi`.
  - Color, link, fonts cause problems.
  - Special versions of drivers can handle these.
  - `xdvi`, `dviwindo`, `dviout` are not really presentation tools
- Downgrade to HTML using `latex2html`, `tth`, `TeX4ht`
  - Beautiful browsers are available. Lightweight solutions if pure text or straightforward  $\text{\LaTeX}$ . Also consider MathML.
  - Weak math support (math is translated to images)
  - Plugin solution is possible (IBM TechExplorer)
  - Precise placement is a problem.
- Work with PDF
  - Factor of two size increase as compared to `dvi`
  - Acroread is universal, and acceptable as a presentation tool

## Wrinkles in the L<sup>A</sup>T<sub>E</sub>X World

- The good news: standard L<sup>A</sup>T<sub>E</sub>X document classes handle the basic issues of presentation (large size font, overlays, self contained pages, vertically centered pages)
  - The `slides` document class: Standard but lacks bells and whistles
  - The `foiltex` has restricted licenses (copyright owned by IBM)
  - The `seminar` document class is free, and has a long history. Standard in Redhat teTeX distribution.
- The bad news: Which T<sub>E</sub>X to use?
  - Problem: color is non standard. Need to convert to pdf using dvipdf. (ps2pdf is not an option)
  - Accept this reality and work with pdf<sub>l</sub>atex but debugging with pdf<sub>l</sub>atex and acroread is very slow
- Possible solution: Work with both teTeX and pdf<sub>l</sub>atex!

## A Few Words on the `seminar` class

- Mix both portrait and landscape in presentation (impossible in PowerPoint?!)
- Recommended for presentations: `\documentclass{seminar}` and `\usepackage{graphicx,times,semrot,sem-a4}`
- For foils, use the `portrait` option.
- Make frames using the `fancybox` package (Can put background text too).
- Color handled with `\usepackage[dvips]{pstcol}` `\usepackage{semcolor}`
- Can have default logo at the bottom
- And a list of slides!

## About PDF

- Compressed descendant of the PostScript language
  - Not a programming language (has JavaScript support though)
  - Page independent from resources
  - Hypertext and security supported
  - Font need not be part of the document
- Adobe makes money in the create PDF process (specs are open)
- Can be used to create *forms* (like HTML forms) with textfield, checkboxes, and so on.

## About hyperref

- A  $\text{\LaTeX}$  front to generate marks understood by Acrobat
- Extends cross-referencing commands
- Supported by xdvi, dvips, pdftex, dvi<sub>pdfm</sub>
- Two common packages (colorlinks, backref)
- Can be used to control the acrobat menu (bookmarks, toolbar, and so on).

## About pdfscreen

- Wrapper around hyperref to make attractive screen presentations
- Panels to let you navigate
- Automatic color screen
- Page transitions are also provided

## Options to Explore

- ppower4: Postprocessor to enable incremental additions to pages
- texpower: Similar, does page transitions, color highlighting and incremental page display
- propser: A powerpoint lookalike built on top of seminar
- ifmslide: Built on top of texpower

## Other Tools

- xfig

- LaTeX text within xfig (psfrag is more general)

- \* Write text, and tag it as “special”.

- \* `% fig2dev -L pstex_t -p test.eps -m 0.8 test.fig >test.ps`

- \* `\input{test.pstex_t}`

- Use of grids, update

- Images

- Aligning (Judicious use of the minipage environment or xfig)

- includegraphics handles many different kinds of image formats

- fig2dev, convert

- The listings, and subfigure packages

## Resources

- The  $\text{\LaTeX}$  book
- The companion books (Goosens)
- D.P. Story's [article](#).
- Michael Wiedmann survey.
- The seminar and the pdfscreen homepage.
- The guide to working with images epslatex.ps
- pdftex faq