

# Why Latex Beamer?

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*Being a grad student (for that matter, in almost any profession these days), I frequently need to give talks or present some material. I have finally settled on Latex Beamer as my preferred presentation tool, and this article describes why.*

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## 1. Introduction

Presentation is one of the most effective means of communication for a small audience with diverse backgrounds. Both in the industry and the academia, it is becoming increasingly important to create affective and compelling presentations. Not surprisingly then, the presentation tool you use becomes very important in the work place.

The *de facto* tool for presentation out there is Microsoft Powerpoint. For more reasons than one, I prefer not to use it. I have tried several alternatives, and finally decided to use [Latex Beamer](#) for my presentations. Here I try to describe why I made this choice. I must mention here that the beamer web page looks ostentiously simple and naive -- don't be fooled by it. Beamer is one of the most sophisticated and extensively documented (user manual has more than 300 pages of professionally written documentation) presentation tools I have come across. Take a look at one of the sample slides to get a feel of what beamer can do.

## 2. What makes a good presentation?

There is no dirth of resources on the web on how to give a good talk (see Resources below, and Google for the rest), so I'm not going to elaborate on this in too much detail. I will just mention a few points that I think go into making a good presentation (note that I'm not focusing on the public speaking aspect, only the presentation aspect, that is the slides themselves)

- Use plenty of pictures
- Don't use too much text. If using bullets, no more than 5-6 bullets on a slide
- Never use complete sentences. Just use buzz words and key phrases. Remember, if you can write everything on the slide, there's no need for you to talk!
- No fancy animations. I usually discount a presentation that relies on slide transitions and animations to make their point. There are exceptions of course, but in general avoid using animations.
- Keep the slides consistent. This means font, indentation, color schemes, spacing, capitalization should be consistent across all slides (irrespective of the amount of content)

## 3. What makes a good presentation tool?

- Should not get in the way
- I should take care of the content. The tool should worry about the presentation -- this includes fonts, layouts, indentation, colors, spacing etc
- Routine stuff should be really easy, sophisticated stuff should be doable
- Discourage bad practices for presentations by design
- Portable -- work in a cross platform fashion

#### 4. Things I dislike about other presentation tools

While I'm not talking about any one tool in particular, the general flavor is of tools belonging to the Powerpoint family (this includes OpenOffice.org's Impress, KOffice's KPresenter etc)

- I have to worry about layout
- Font sizes are a function of amount of content
- Changing parts of a "theme" is hard
- Powerpoint slides won't run nicely on Impress or KOffice. The latter two won't run at all on Powerpoint. Why do I need something as bulky as powerpoint just to do the presentation? While making, I can understand that we might need significant software complexity, but can't we have something more lightweight for presenting?

#### 5. Things I like about beamer?

- Its LaTeX: latex and friends have survived the test of time and for more than 2 decades people have been using tex derived technologies for typesetting their writings. With latex, beamer makes it easier than ever to put mathematical formulae and all kinds of symbols in your presentations, embed images, make tables and do everything else that you can do with latex. Since many of us already use latex, it means there is less tool to learn -- I can make my presentations in a language that I'm already familiar with! And I don't need any bulky tool to manipulate my presentation, just a text editor is enough, thank you.
- Its PDF: We all know what PDF stands for -- Portable Document Format. That's it! Portable! Latex runs on all major operating systems and architectures out there. Once you get a PDF from Latex, you can display it using any regular PDF viewer. Imagine how easy it now becomes to move your presentation around. You don't have to worry if your laptop breaks down and the other laptops in the room don't have the right version of Powerpoint installed. Put your PDF in a USB key and stop worrying about it!
- Takes care of layout
- Themes are endlessly customizable
- Notes and handouts made the way you want them
- Organize your presentation in a logical manner: beamer sort of follows the MVC philosophy. In each presentation, there is a content structure, which determines how your content flows through (just like a regular article with sections and subsections). Then there is a slide structure, which determines how this content fits onto your slides. The content structure controls the generation of navigation and table of contents. The slide structure controls the slides and the control flow between them.

#### 6. But nothing is perfect

- Keynote's presentation mode

- No knowledge of projectors or screens -- the user has to deal with that (or the operating system)

## 7. Resources

- [How to give a talk](#)
- [How to give a good research talk](#)
- [Pointers on giving a talk](#)
- [Collected advice on research and writing](#)