Making Effective (Math) Presentations with Google Slides (or PowerPoint)

Some "dos" and "don'ts"

MONT 101N -- Analyzing Environmental Data
Spring 2018

Definitely "don't do this(!)"

Especially if you are new at giving presentations this way one possible temptation is the idea that you should put **everything you want to say**, in exactly the form you want to say it, onto your slides. This unfortunately can also give the presenter a (false) sense of security, because it seems like you just need to "read the slides" to give the presentation (sort of like like what I'm doing now, facing the screen). However, this approach has been known to induce "death by PowerPoint" in audiences. You have probably experienced that yourselves(!) It's boring, boring, boring and possibly confusing, confusing, confusing! It can lead to information redundancy, because if your audience is trying to listen and read at the same time, they end up just reading the same thing they already heard, but not synchronized (hearing/decoding speech will usually be slower than processing text visually!)
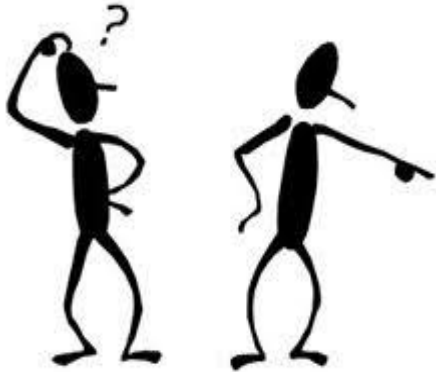
Marginally better, but still a "don't"

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Moral -- bullet lists are "a do," but ...

- They can definitely help organize your talk and help audience follow you
- **BUT --** it's actually rarely a good idea to write the bullet points in complete sentences mirroring a normal text
- Better to use them as an *outline* or set of signposts
- Think of them as something your audience can refer to if they get lost or want to understand connections between things you are saying
- Also, ***DON'T overfill your slides -- more than 5 bullet points per slide is almost always overkill***

Another (big) "don't"

- Microsoft PowerPoint especially includes lots of "fancy" gimmicks for "juicing up" presentations and making them flashier and more visually interesting:
- Animations for adding elements to slides
- Gimmicky, "cutesy" graphic elements ("clip art") you can copy and paste into your presentation, like these guys:
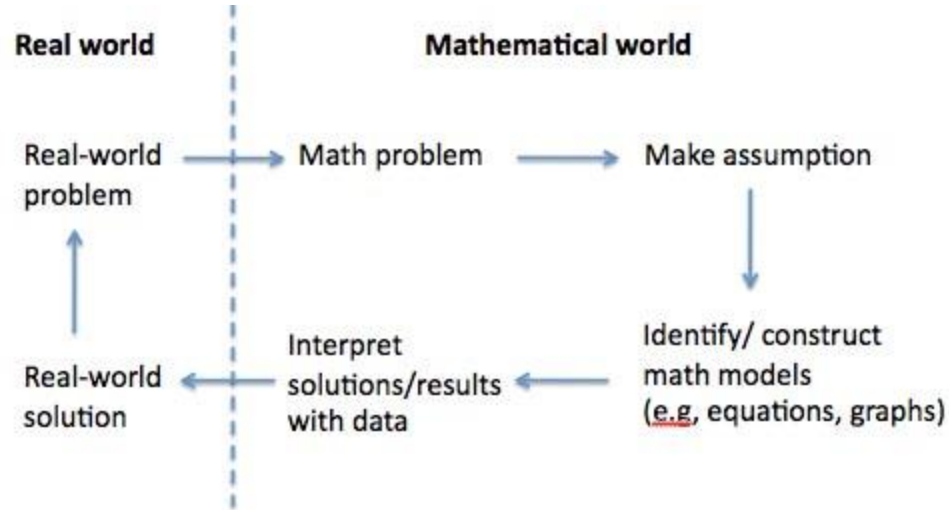
What's wrong with that?

- There's a place for animations (especially if you don't want to show everything on a slide all at once) -- the point here is *don't **overuse them.***
- After all, the talk isn't about how flashy a presentation you can put together; it's about the mathematics(!)
- Also, please don't even think about using *Prezi* for your presentations -- I find it's just too distracting for the audience with stuff zooming in and out
- This kind of talk is best presented as a series of linearly ordered points to be made in sequence, not as an interconnected web of ideas
- Images that don't convey relevant information (i.e. that only "comment" or tell the audience how to react) are not suitable for this kind of talk.
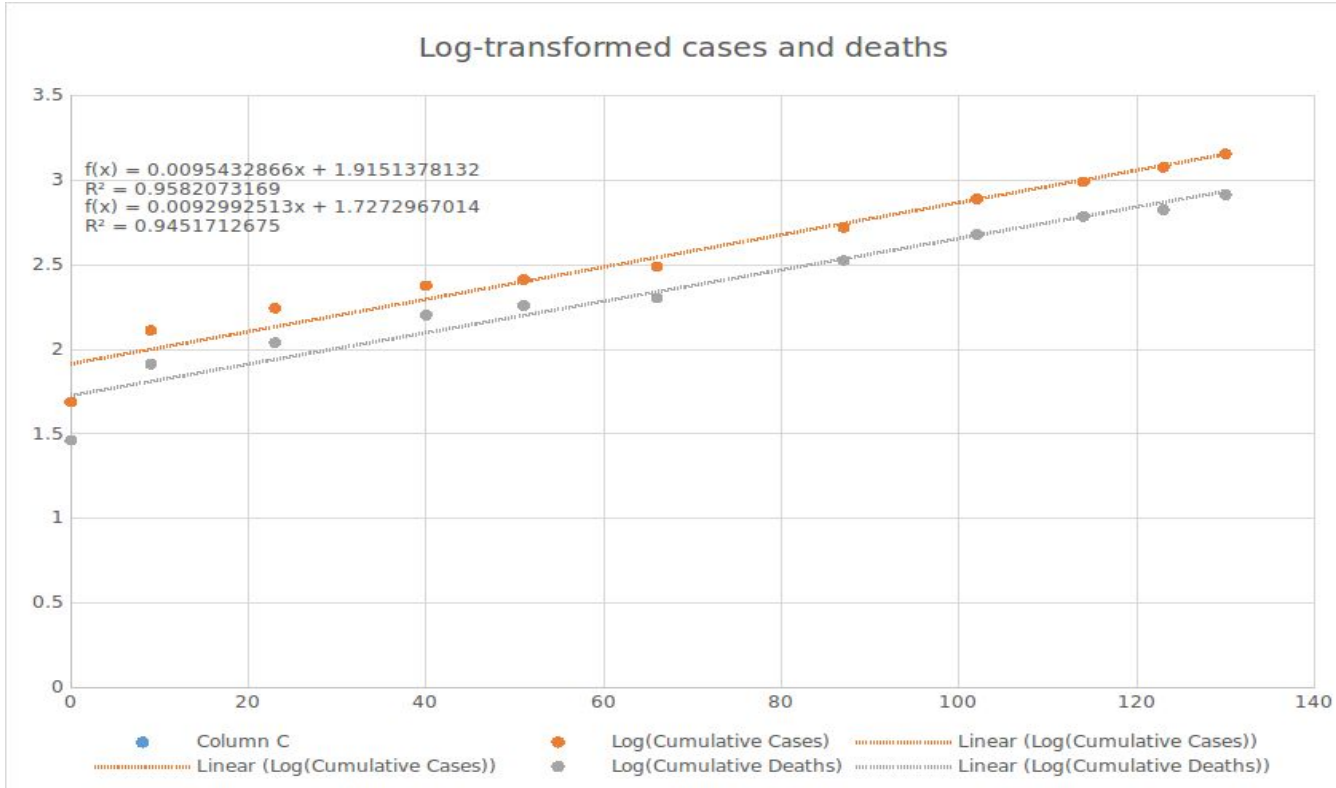
Effective use of visual information -- a big "do"

- Example -- if you are talking about modeling the 2014-2015 Ebola outbreak using the mathematical tools we developed last fall …
- Photos of the actual Ebola sufferers would be startling and graphic, but
- A map of west Africa showing where Liberia, Sierra Leone, and Guinea are would probably be even more helpful to help the audience understand the context
- Can import images from external files of basically any graphics format (jpeg, gif, pdf, png, etc.)
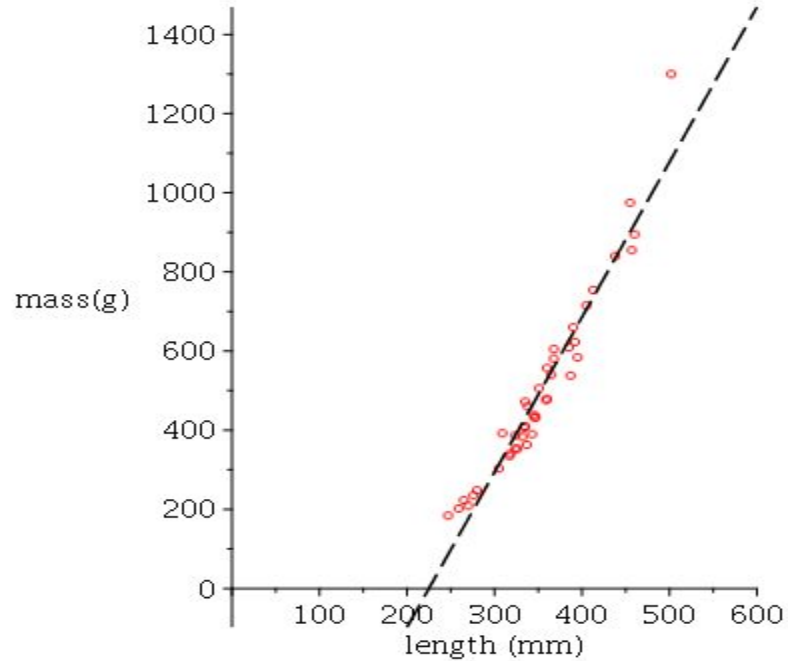- Can also import charts and graphs from spreadsheets

Inserting images

Illustrating that log-transform can "linearize"

Log-transformed cases and deaths

f(x) = 0.0095432866x + 1.9151378132
R² = 0.9582073169
f(x) = 0.0092992513x + 1.7272967014
R² = 0.9451712675

It's easy to do -- just make sure it's worth doing(!)

Finally some additional "do's"

- For the presentation, you may want to use notecards as memory aids for what you want to say -- *don't read the slides*(!)
- Be sure you practice sufficiently so that you don't need to be referring to your notes all the time
- Face the audience at all times; pick out a person, make eye contact, talk to them for a while, then find another person to "talk to''
- At the very least, *seem* like you are *interested* and *excited* to be telling the audience your story (I know this might not necessarily be true, but it really helps make the experience better for everyone if you can at least "fake it")
- Have fun as much as possible!