

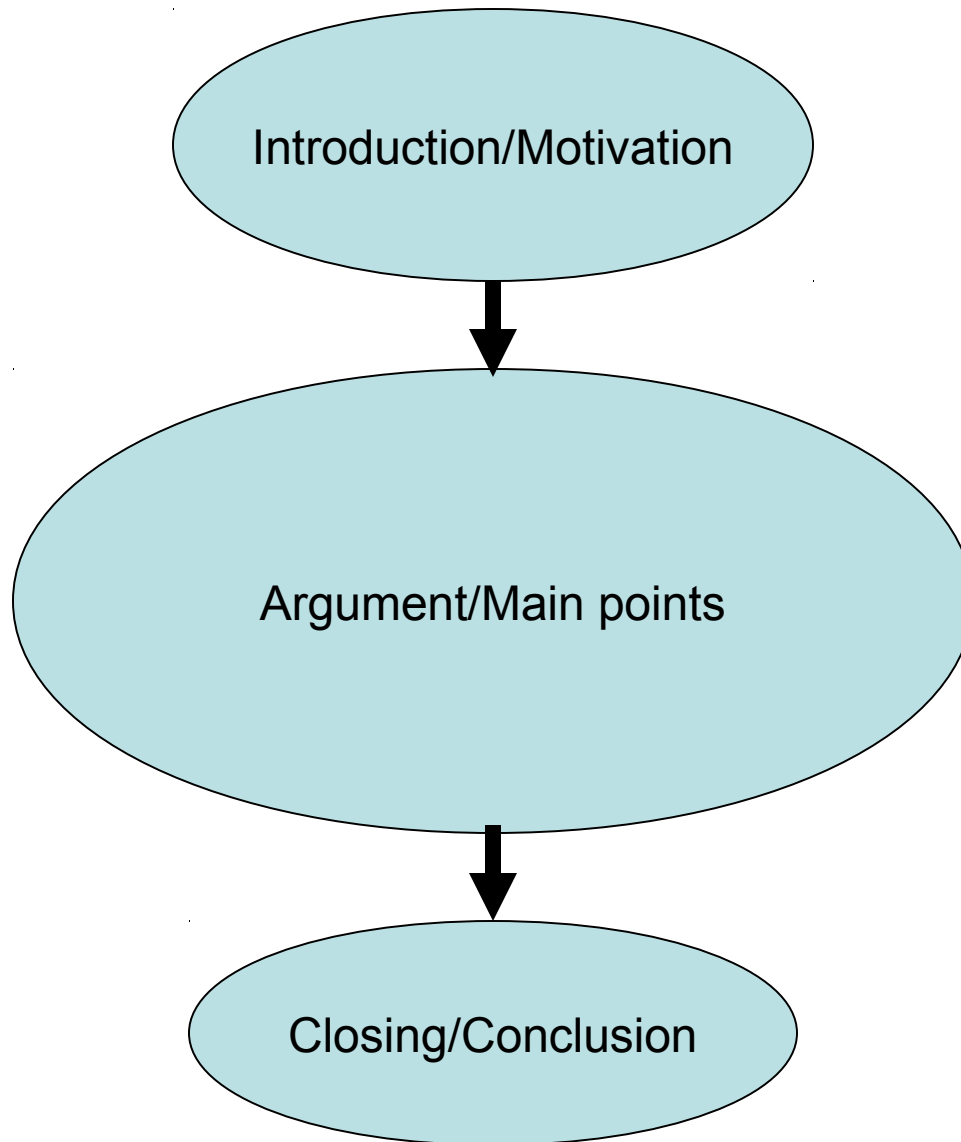
Most likely you are going to have to give several talks in your life



It's less likely that someone is going to tell you how.

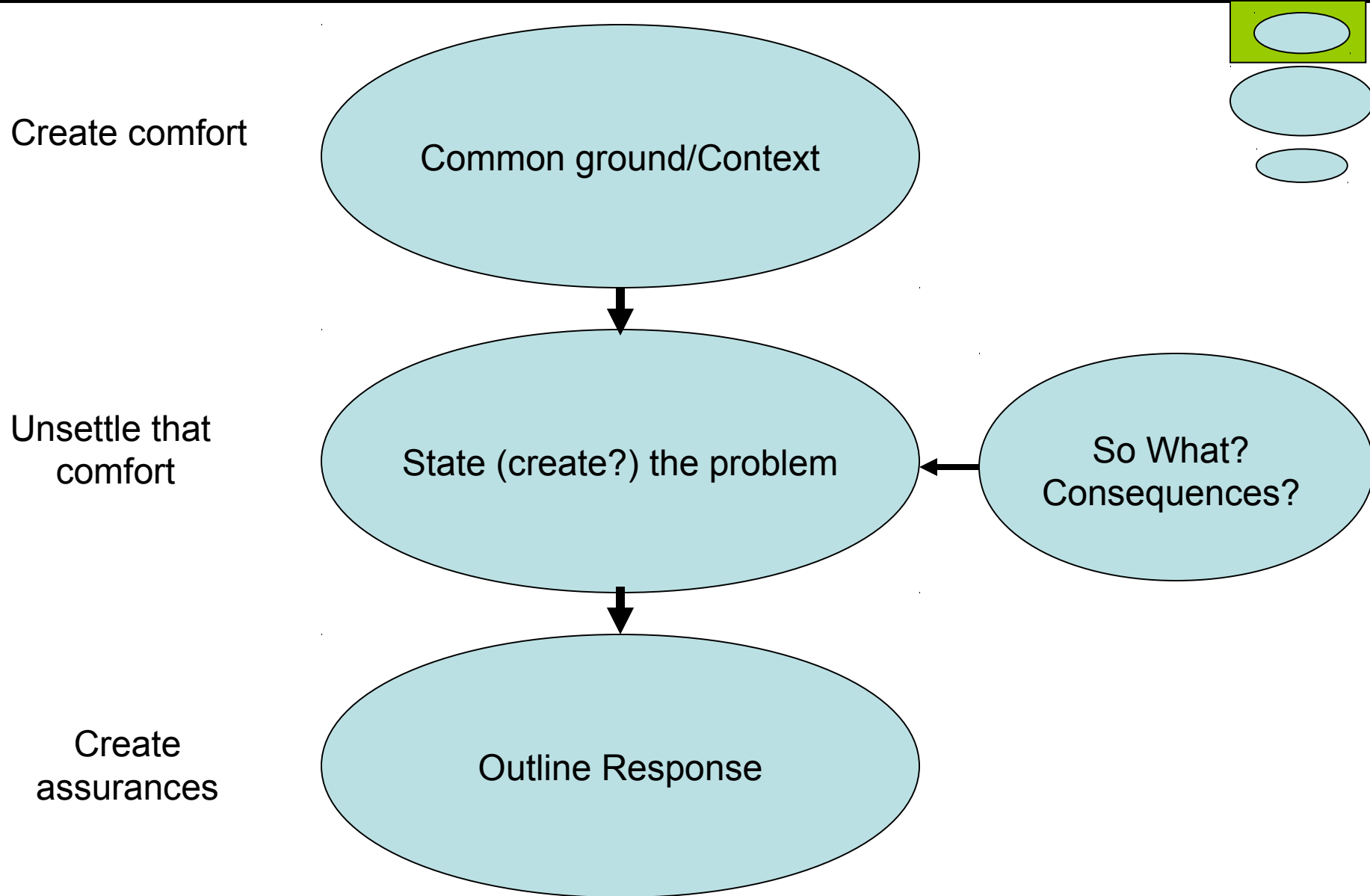
The structure of a good talk is already familiar to you.

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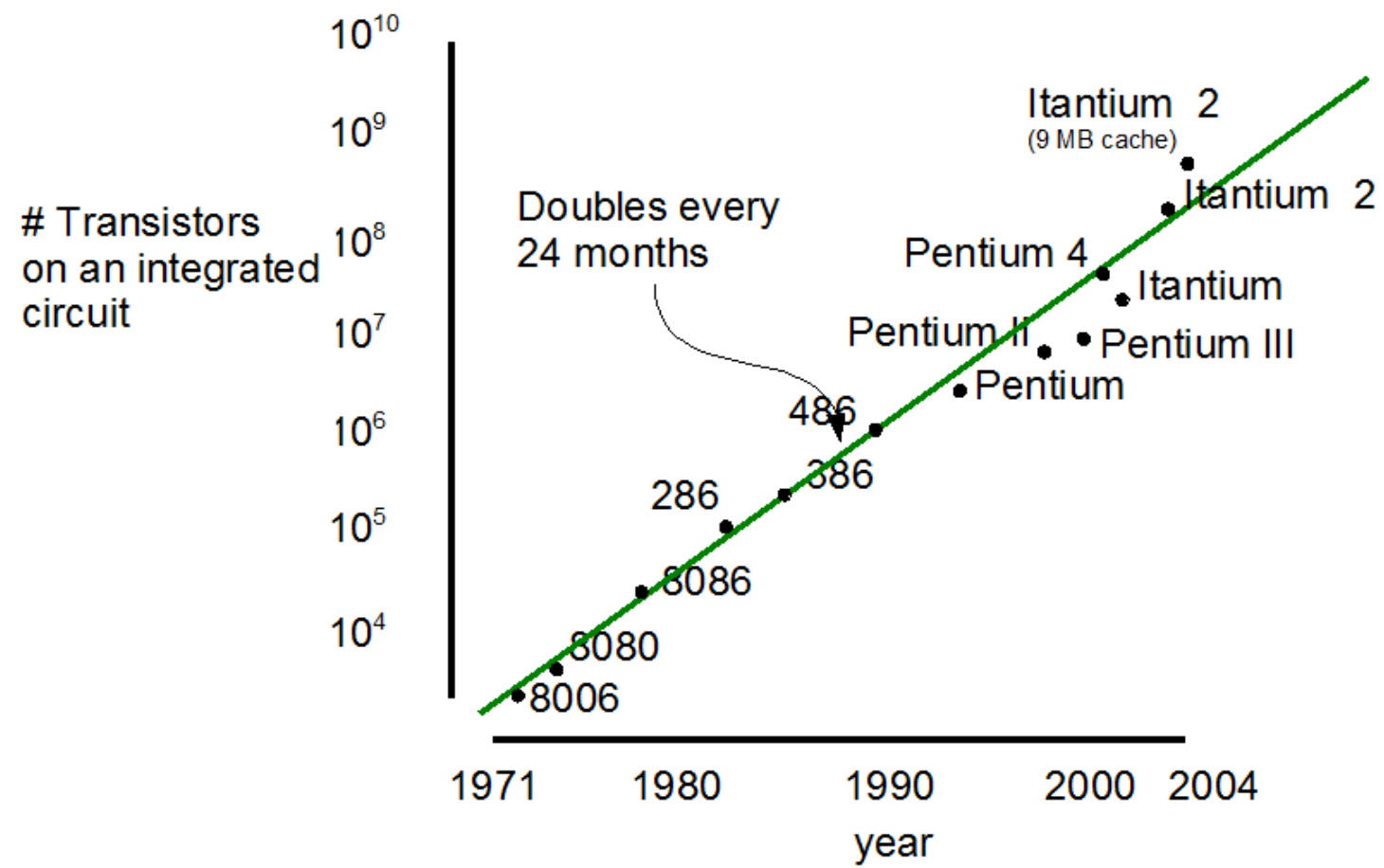
Ever written a paper?

# Introduction: Motivate the audience to listen to you



# Example of an introduction: (1) Establish common ground

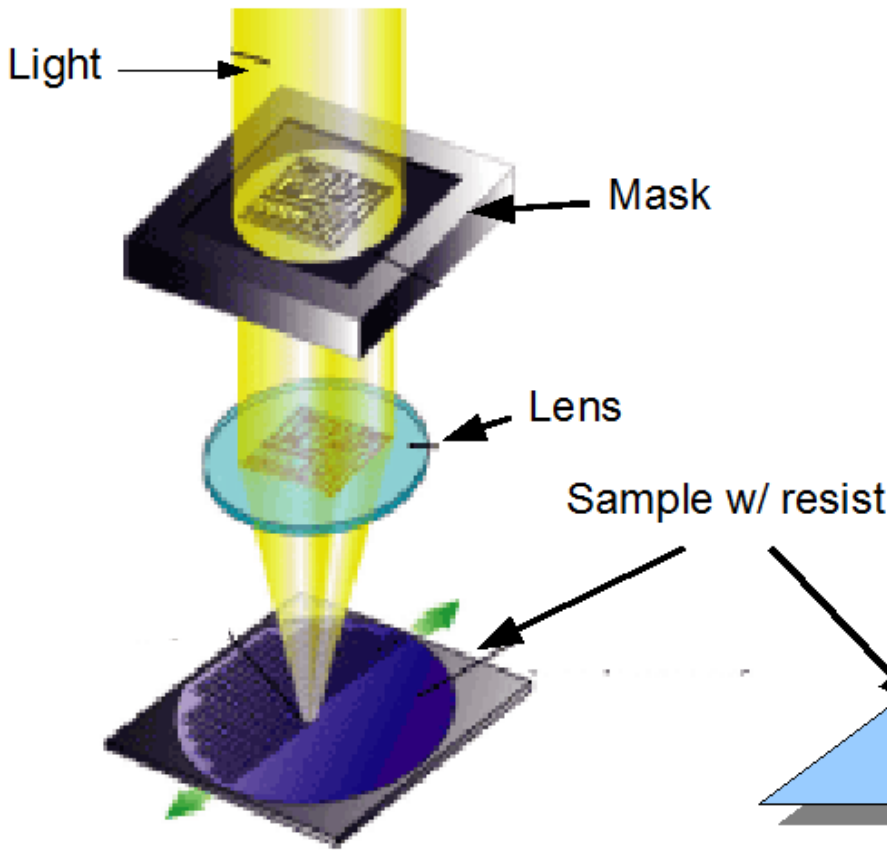
Number of transistors on an IC chip doubles every ~ 24 months



Example of an introduction: (2) State (create) a problem.

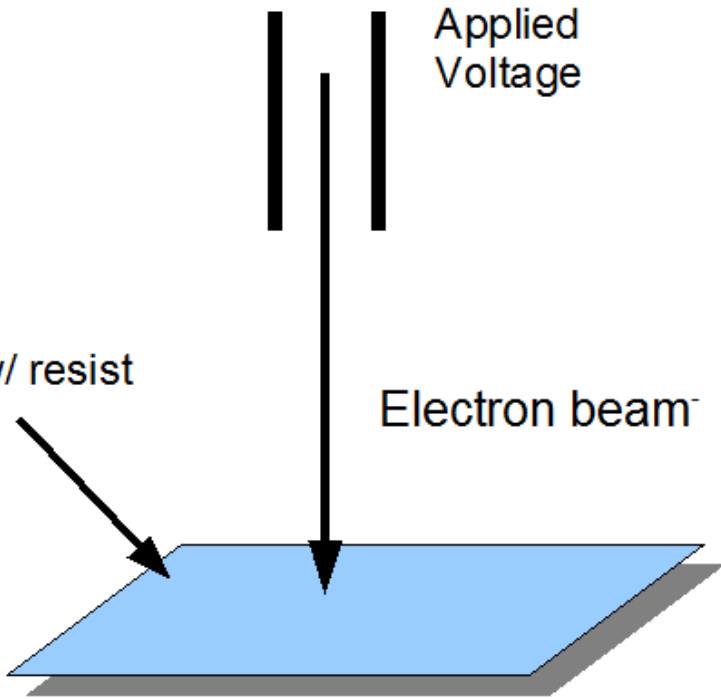
Lithographic methods tend to be either fast or have small feature size.

Photo-lithography

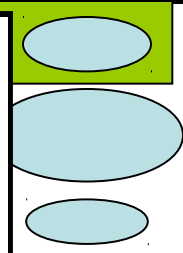


Fast, min feature size  $\sim \lambda/2$

E-beam lithography

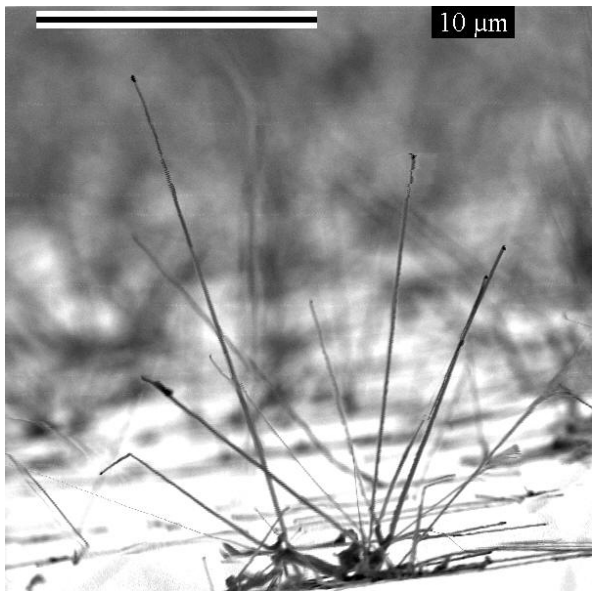


Slow, min feature size 1 to 10 nm



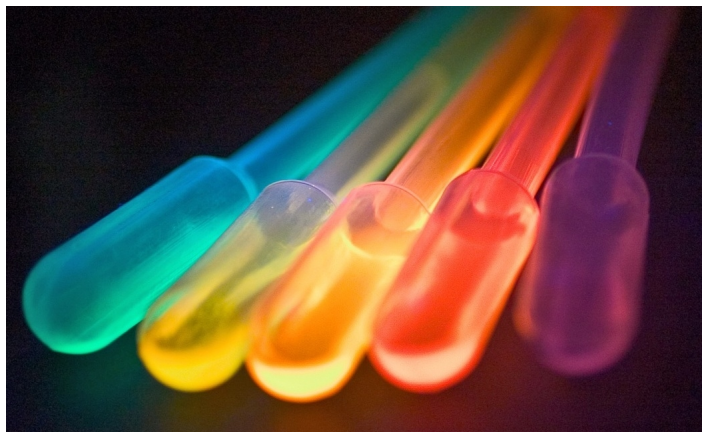
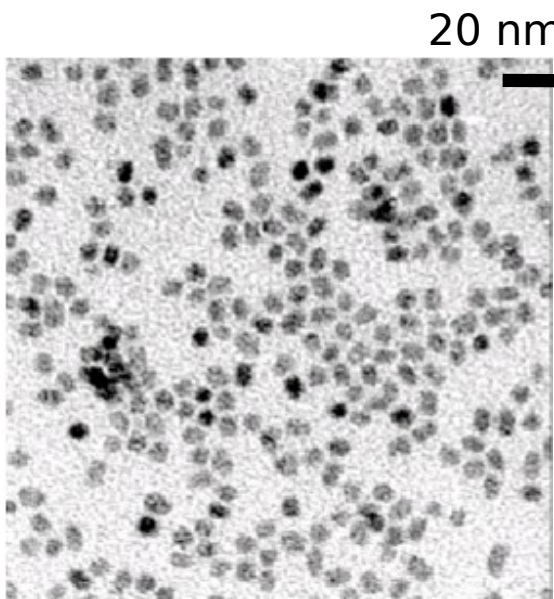
Example of an introduction: (3) State the gist of your response.

Self-Assembly: alternative, inexpensive route for fabrication



ZnO nanowires

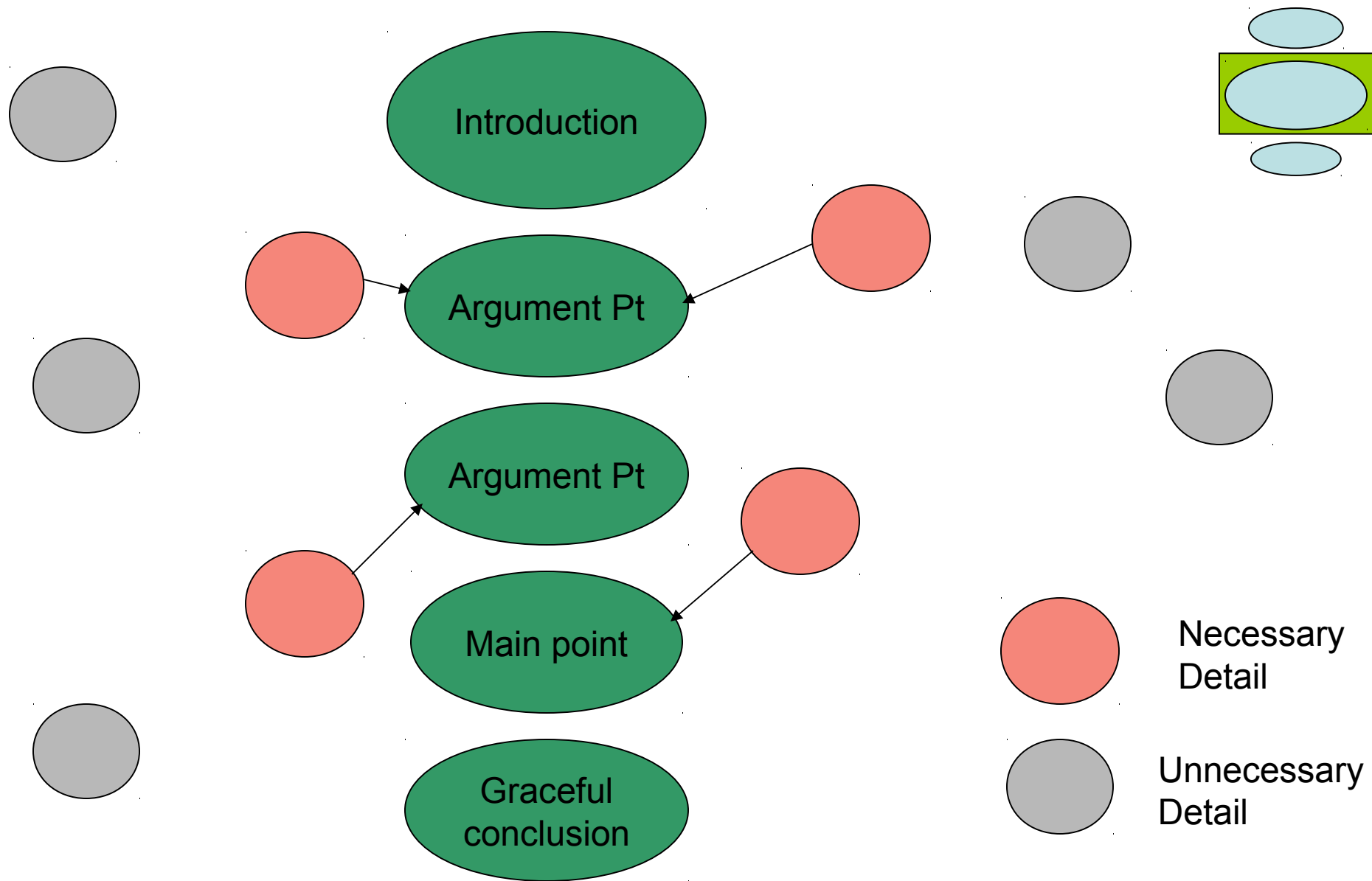
CdSe quantum dots



University of Chicago News Office -- CdSe  
<http://www-news.uchicago.edu/releases/04/040715.qdot1>.

[http://www.lbl.gov/msd/PIs/Alivisatos/02/02\\_1alivisatos.html](http://www.lbl.gov/msd/PIs/Alivisatos/02/02_1alivisatos.html)  
7 nm Dia CdSe

# Main Arguments: Find clearest, most direct route to your main point



If members of the audience want to know more, they can ask.



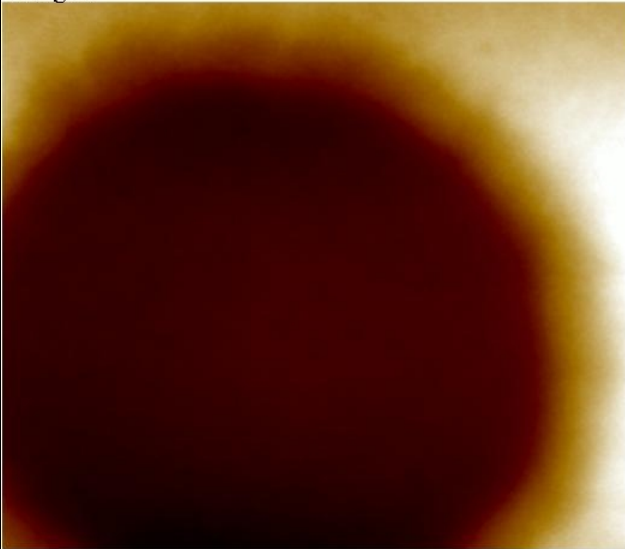
# Slide design: start with template with these elements

Title (states the main point of slide)

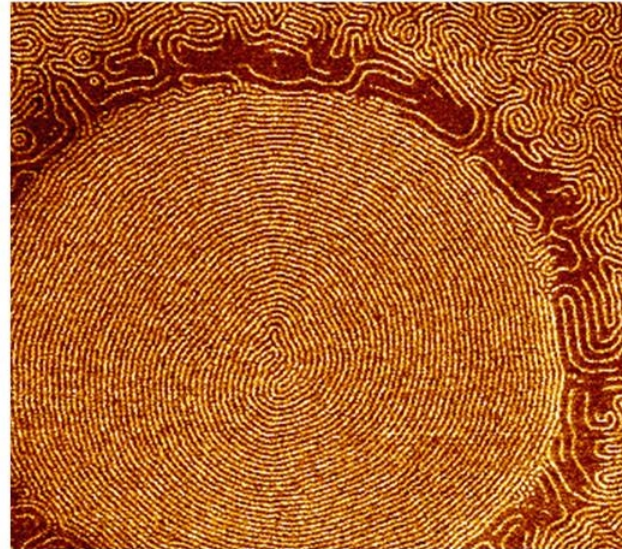
One problem: the boundary affects the pattern!

Atomic Force Microscope image of diblock pattern

Height



Phase



Few graphic elements which illustrate or argue the point of the slide

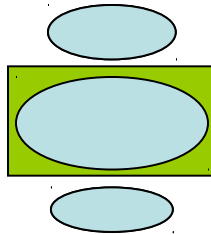


2.5 microns

Descriptive labels, scales, etc.

Answer: do the experiment on samples 100,000 repeat spacings wide...

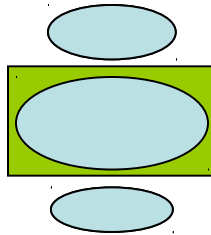
(optional:) answers to rhetorical questions or transitional statements





# Do's and Don't for slides

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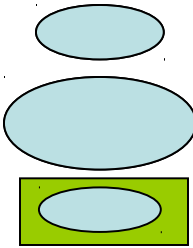


- Make one point per slide, put it in the title
- Make Graphics as large and as simple as possible
- Label all axes
- Label all figures as to what they are (optical microscope image, etc.)
- Use font large enough so that the audience can read
- Limit yourself to less than 30 words per slide
- Pace yourself at approximately 1 to 2 minutes per slide
- Practice your talk:
  - Practice in a setting as much like your talk setting as possible
  - Memorize the first 2 or 3 sentences of your talk
  - Make sure the talk will run in the time allotted
- Don't create a slide like this. I.e. filled with nothing but text:

Ask yourself, is the audience listening to me or reading this text right now? If you have read this, you have the answer...

# Choose a graceful conclusion

Here are some common choices...



Restate main point of talk

Illustrate a new application of  
the research

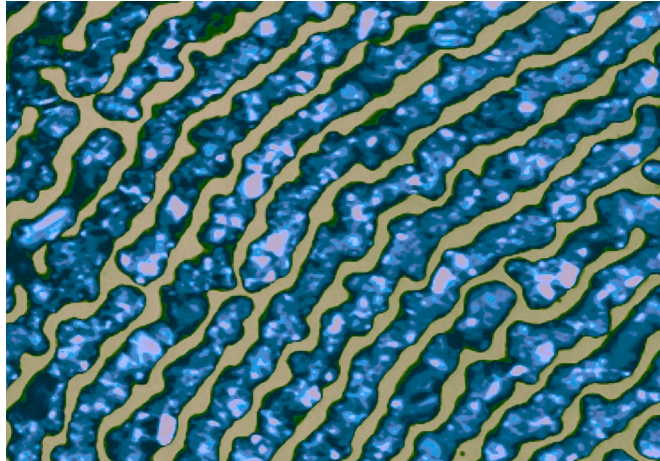
Point out the problems which  
need to be solved and call for  
more research

Coda

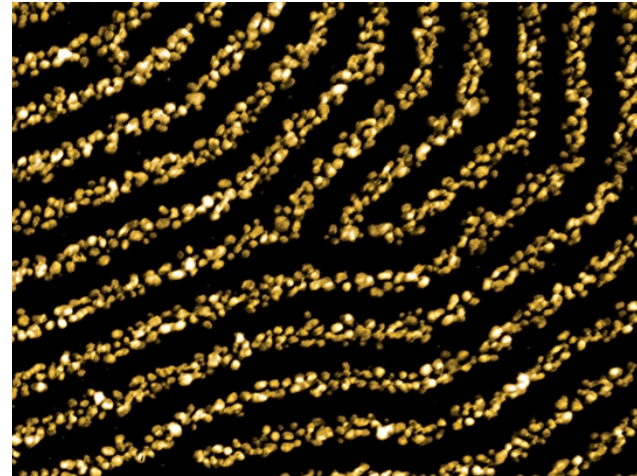
Example: new applications give the impression that your research is “deep”.

Self-Assembled patterns can also be used to make interesting electronic elements.

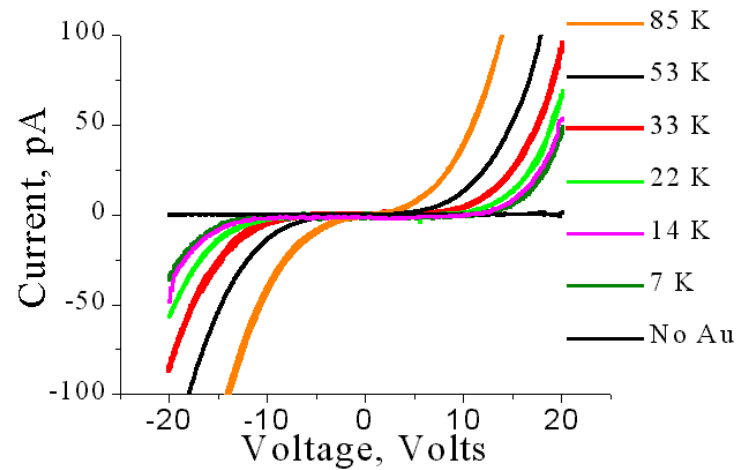
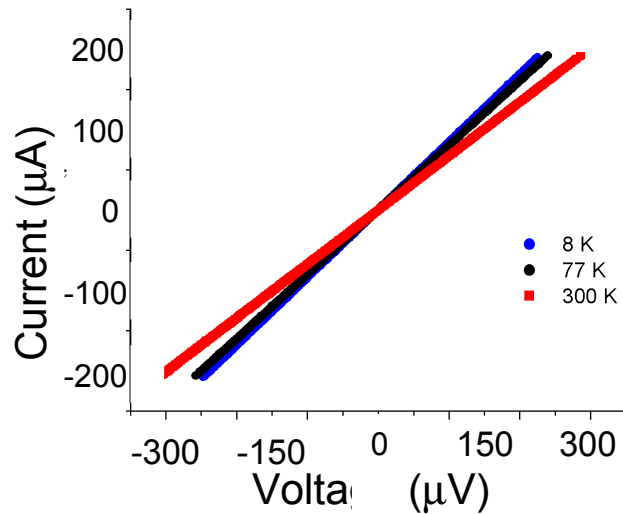
Silver



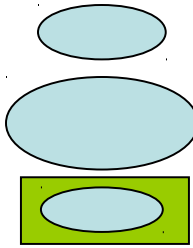
100 nm



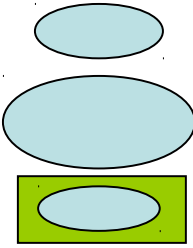
Gold



W. A. Lopes and H. M. Jaeger, Nature. **414**, 735(2000).



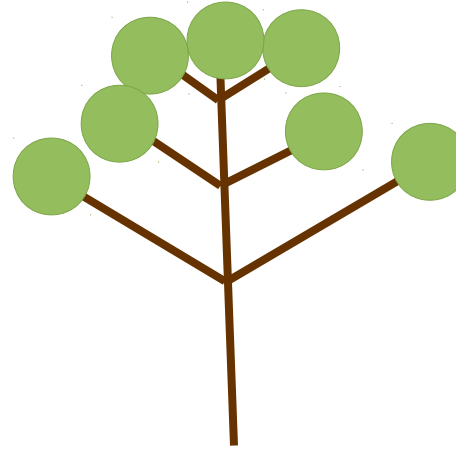
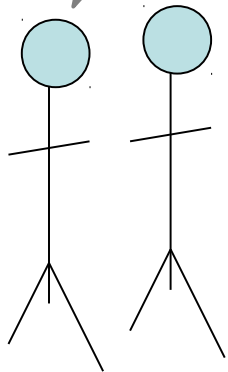
A black slide is a convenient way to remind yourself that the talk is over.



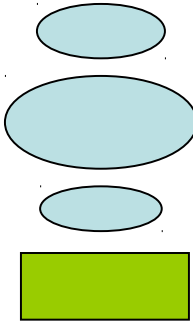
# Place supplementary materials after the end of your talk, part 1.

O.K.; but, what if your research is boring...

I don't want to paint that,  
it's boring...



If your talk/research is boring that's a message...



# Place supplementary materials after the end of your talk, part 2.

There's always is a richer context in which to cast your research.

