

SOFTWARE QUALITY ASSURANCE

Lecture 14

The Last Lecture☹

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Switch off mobile phones during lectures, or put them into silent mode



Believe
in yourself,
Others
will follow



IF YOU *Believe*
IN YOURSELF

Anything
IS POSSIBLE





TERM PAPER



- Finalize Group Members 26-Feb-2013
- Finalize Topic 12-Mar-2013
- Search Papers and Sort Selected (TODAY) 20-Mar-2013
- Go Through the Abstract and Introduction of Selected Papers 27-Mar-2013
- Submit a Summary and Comments on related papers 09-Apr-2013
- Present Your Work till Today 09-Apr-2013
- Submit Initial Draft 30-Apr-2013
- Final Paper Submission 21-May-2013
- **Feedback on Final Submission + Plagiarism Report 28-May-2013**
- **Final Submission after Feedback 3-June-2013**
- **Final Presentation @ 5PM 4-June-2013**

Please note that Every Phase has Marks

CONTENTS

- Outlines
- Slide Structure
- Fonts
- Color
- Background
- Graphs
- Spelling and Grammar
- Conclusions
- Questions



OUTLINE

- Make your 1st or 2nd slide an outline of your presentation
 - Ex: previous slide
- Follow the order of your outline for the rest of the presentation
- Only place main points on the outline slide
 - Ex: Use the titles of each slide as main points



PURPOSE OF A RESEARCH TALK

Is not to

- Impress the audience
- Tell them all you know about a subject
- Present every little detail of your work

Is to

- Give the audience a sense of what your idea/work is
- Make them want to read your paper
- Get feedback on your work



KNOW YOUR AUDIENCE

- Who would be there?
 - Scientists expert in your field
 - Scientists not expert in your field
 - Students
 - Non experts
 - Who knows?

Most likely a mix so have something for all



KNOW YOUR AUDIENCE

- Keep in mind
 - They might be tired
 - They can read 😊
 - They are thinking “Why should I listen?”
 - Non-experts will tune off within 2 minutes
 - Experts after 5 minutes
- What can you do?



WHAT CAN YOU DO?

- Early motivation - at the beginning of your talk motivate your research with easy to understand examples
- Spoil the punch line - State your results early and in simple terms
- Visuals – Illustrate your idea with images and diagrams



WHERE WERE YOU?

1. Preprocessing
2. Filtering
3. Texture
Extraction
4. Decision Trees
5. Classification

- People **will get lost** during your talk, even those who are listening
 - have a **running outline** of the main steps of your idea (more than the talk itself)
 - use **visual clue** to highlight where you are in the process
 - present it at the beginning of each step

1. Preprocessing
2. **Filtering**
3. Texture
Extraction
4. Decision Trees
5. Classification

RELATED WORK

- Be familiar with all related work
- Don't list each paper you read
- Mainly talk about results that are immediately related to what you did
- References at the end of the talk or better in the paper itself
- Acknowledge co-authors (title slide)



TECHNICAL DETAILS: IN OR OUT?

A fine line

- Present specific aspect that show the “meat” of your work
- Leave the rest out. If you were convincing they will read your paper
- Don't fill up your slides with lots of equations
- Prepare back-up slides to answer questions. Leave them at the end of the presentation



THE SKELETON

- What is the problem
- Motivation and goals
- Relevant state of the art
- What is your key idea/contribution
- Why is your approach good/better
- What I just said and what I want to do next



PREPARING THE PRESENTATION

- Less is more. Fill in with narration not words
- Use animation carefully
- Use color to emphasize some points but limit to 2 or 3
- Be consistent! In the choice and use of color font size/type etc



SLIDE LAYOUT - BAD

- This page contains too many words for a presentation slide. It is not written in point form, making it difficult both for your audience to read and for you to present each point. Although there are exactly the same number of points on this slide as the previous slide, it looks much more complicated. In short, your audience will spend too much time trying to read this paragraph instead of listening to you.



SLIDE LAYOUT – GOOD

- Show one point at a time:
 - Will help audience concentrate on what you are saying
 - Will prevent audience from reading ahead
 - Will help you keep your presentation focused



FONTS - GOOD

- Use a decent font size
- Use different size fonts for main points and secondary points
 - this font is 24-point, the main point font is 32-point, and the title font is 44-point
- Use a standard font like Times New Roman or Arial



FONTS - BAD

- If you use a small font, your audience won't be able to read what you have written
- CAPITALIZE ONLY WHEN NECESSARY. IT IS DIFFICULT TO READ
- **Don't use a complicated font**



COLOR - GOOD

- Use font color that contrasts sharply with the background
 - Blue font on white background
- Use color to reinforce the logic of your structure
 - Ex: light blue title and dark blue text
- Use color to emphasize a point
 - But only use **this occasionally**



COLOR - BAD

- Using a font color that does not contrast with the background color is hard to read
- Using color for decoration is distracting and annoying.
- Using a different color for each point is unnecessary
 - Same for secondary points
- Trying to be creative can also be bad



BACKGROUND - GOOD

- Use backgrounds such as this one that are attractive but simple
- Use backgrounds which are light
- Use the same background consistently throughout your presentation



BACKGROUND – BAD

- Avoid backgrounds that are distracting or difficult to read from
- Always be consistent with the background that you use



SPELLING AND GRAMMAR

- Proof your slides for:
 - spelling mistakes
 - the use of of repeated words
 - grammatical errors you might have make
- If English is not your first language, please have someone else check your presentation!



BASIC RULES FOR PRESENTATIONS

- For projection...
 - Light text on a semi-dark background.
 - The eye is attracted to the light on the screen.



BASIC RULES FOR PRESENTATIONS

- Stick with a single background.
 - The background is the stage for your information.
 - Set the stage and leave it alone!



BASIC RULES FOR PRESENTATIONS

Balance.

- Do not center bullet points.
 - It makes the text ragged.
- And hard to read and follow with your eyes.



BASIC RULES FOR PRESENTATIONS

Balance.

- Generally, left-justify bullets.
- This keeps things neat..
- and easy to follow.



GRAPHS - GOOD

- Use graphs rather than just charts and words
 - Data in graphs is easier to comprehend & retain than is raw data
 - Trends are easier to visualize in graph form
- Always title your graphs



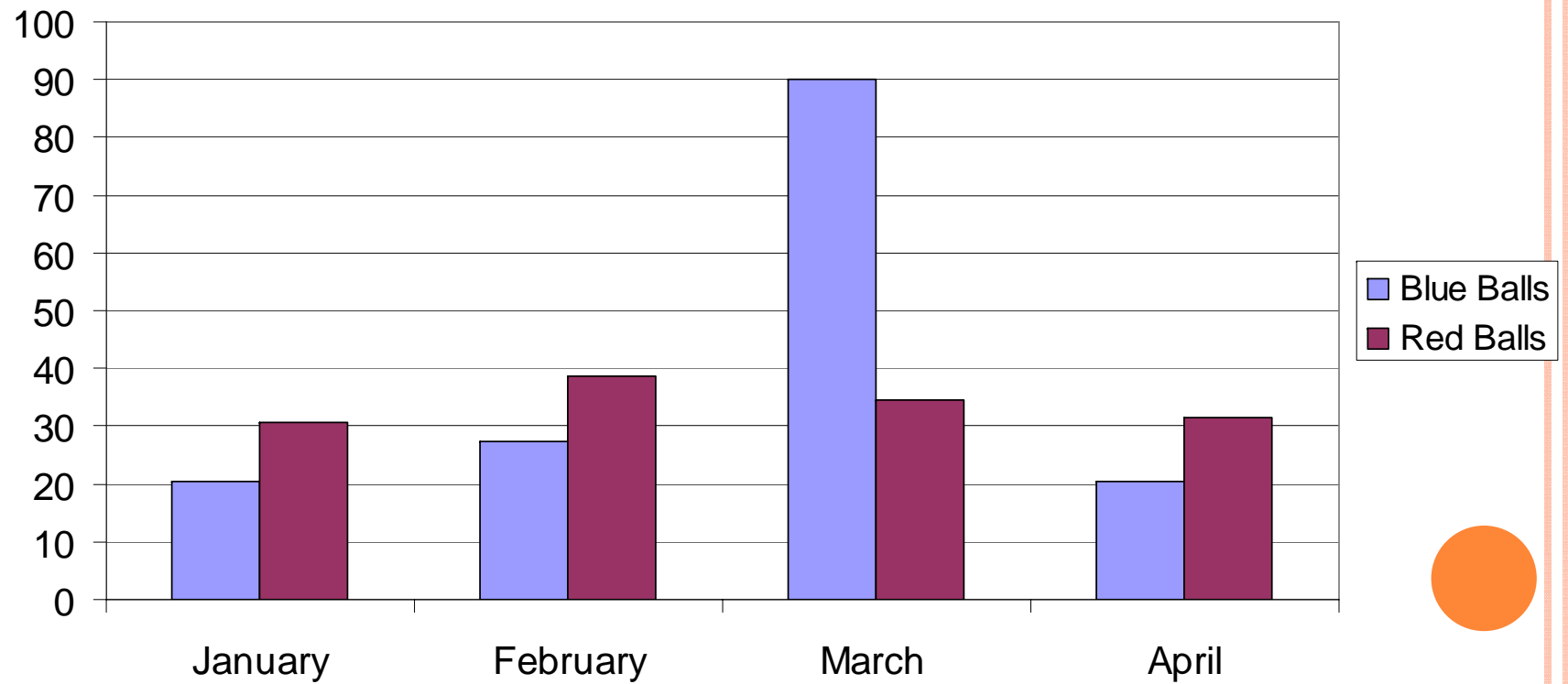
GRAPHS - BAD

	January	February	March	April
Blue Balls	20.4	27.4	90	20.4
Red Balls	30.6	38.6	34.6	31.6

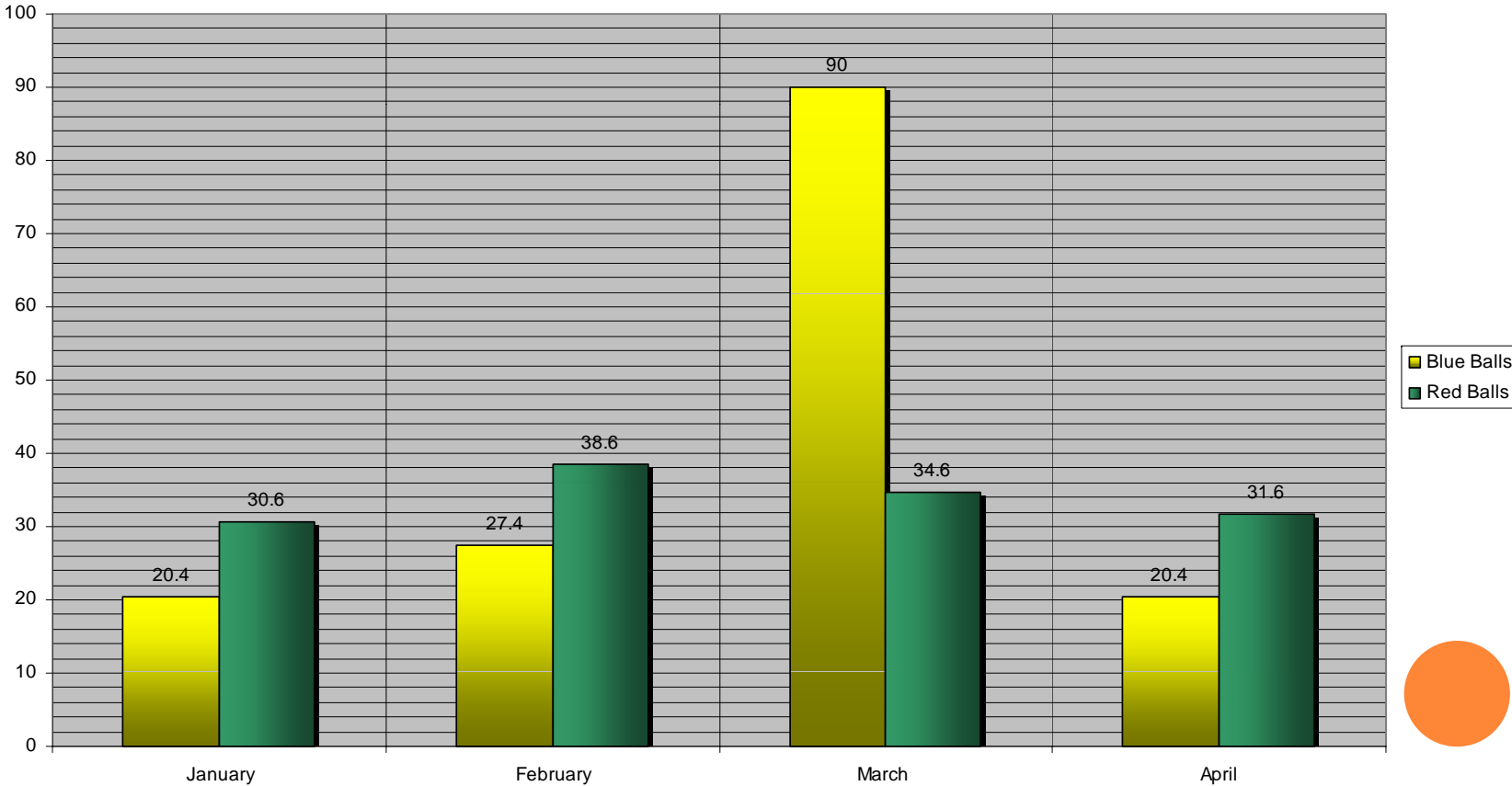


GRAPHS - GOOD

Items Sold in First Quarter of 2002



GRAPHS - BAD



GRAPHS - BAD

- Minor gridlines are unnecessary
- Font is too small
- Colors are illogical
- Title is missing
- Shading is distracting



PREPARING THE PRESENTATION

- Prepare the slides in advance
- Show them to friends
- When you think you are done read them again
- Check all animations with the sound on 😊



PREPARING THE PRESENTATION

- Practice, practice, practice
 - Give a practice talk to a general audience
 - Give a practice talk to an audience of expert
 - Time your presentation (allow for speed up effect caused by nervousness)
- Always assume technology will fail you. Have backups.

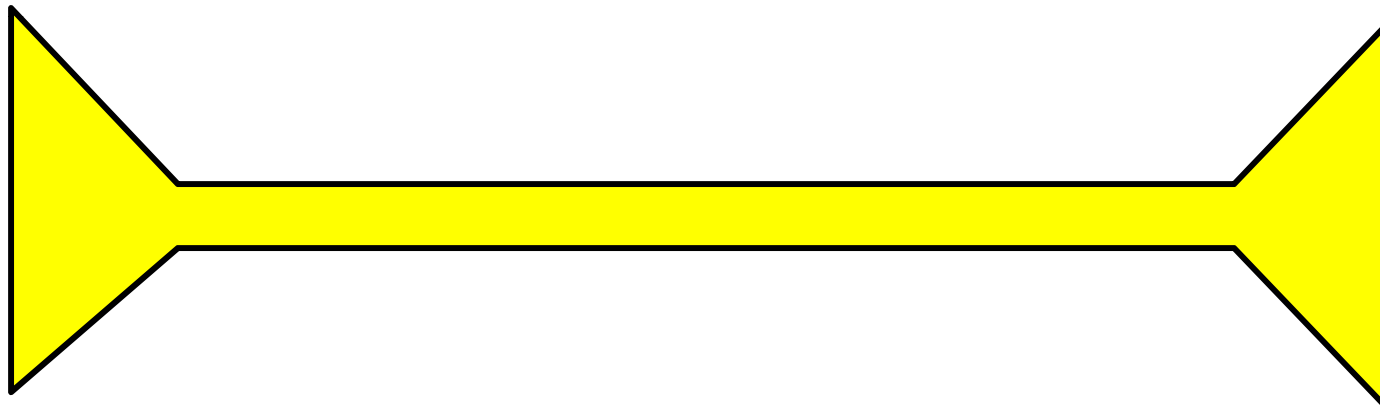


DELIVERING THE TALK

- Be enthusiastic! If you aren't why should the audience be?
- Make eye contact with the audience
- Identify a few “nodders” and speak to them
- Watch for questions. Be prepare to digress or brush off when irrelevant



THE STRUCTURE OF A GOOD TALK: START BROAD, GET SPECIFIC, AND END BROAD



DELIVERING THE TALK

- Point at the screen not the computer
- Do not read directly from the PPT or your notes
- Finish in time



HANDLING QUESTIONS

- Different types – handle accordingly
 - Need clarification
 - Suggest something helpful
 - Want to engage in research dialog
 - Show that he/she is better than you
- Anticipate questions (additional slides)
- Don't let them hijack the talk (postpone)



HOW CAN I GET BETTER?

- Practice every chance you can
- Observe others
 - Steal good presentation ideas
 - Notice all the things that turned you off
- Seek comments from friends and mentors



MAKE IT BIG (TEXT)

- This is Arial 12
- This is Arial 18
- This is Arial 24
- This is Arial 32
- This is Arial 36
- This is Arial 44



MAKE IT BIG (TEXT)

- This is Arial 12

- This is Arial 18

- This is Arial 24

- This is Arial 32

- This is Arial 36

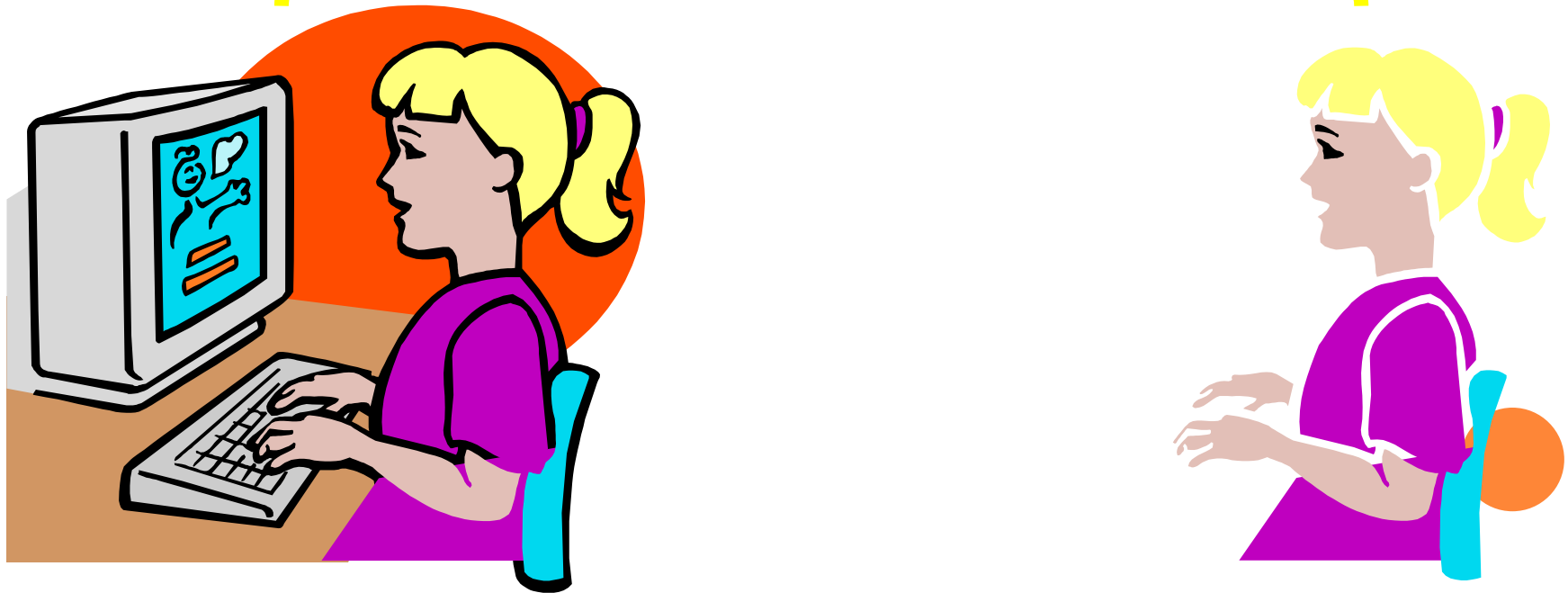
- This is Arial 44

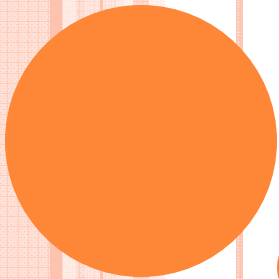


MAKE IT BIG (HOW TO ESTIMATE)

- Look at it from 2 metres away

2 m





KEEP IT SIMPLE

KEEP IT SIMPLE (TEXT)

- Too *Many* ^{Fonts} and **Styles**
- The 6 x 7 rule
 - No more than 6 lines per slide
 - No more than 7 words per line



KEEP IT SIMPLE (TEXT)

Instructional Technology:

A complex integrated process involving people, procedures, ideas, devices, and organization, for analyzing problems and devising, implementing, evaluating, and managing solutions to those problems in situations in which learning is purposive and controlled

(HMRS 5th

Too detailed !



KEEP IT SIMPLE (TEXT)

Instructional Technology:

A process

involving people, procedures & tools

for solutions

to problems

(HMRS 5th ed.)

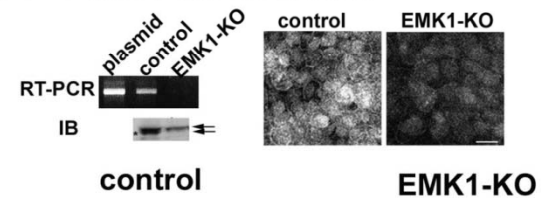
Much Simpler



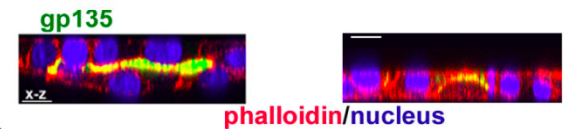
Keep It Simple (Text)

If you try to cram too much into a slide, and place things too close to the sides, they can get cut off if you're using a poor projector. In any case, the slide looks all cluttered and junky.

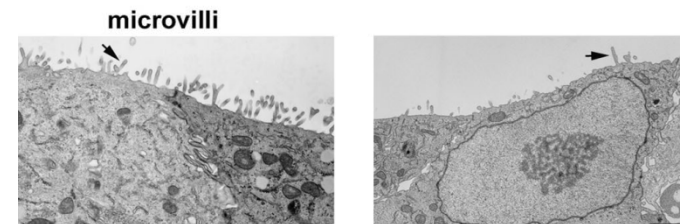
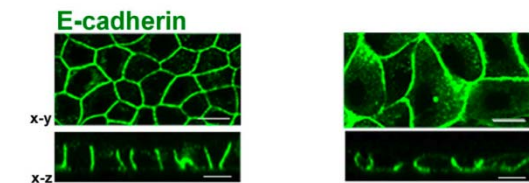
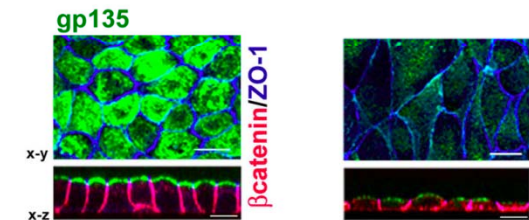
A EMK1-knockdown



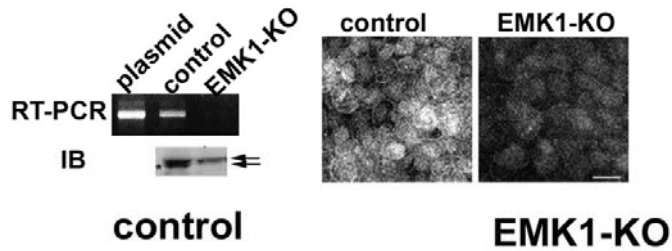
B collagen overlay



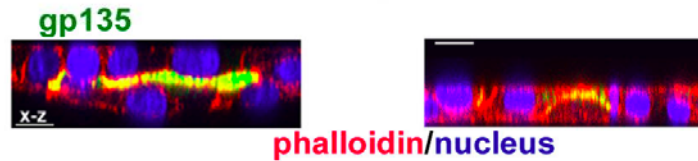
C Ca-switch



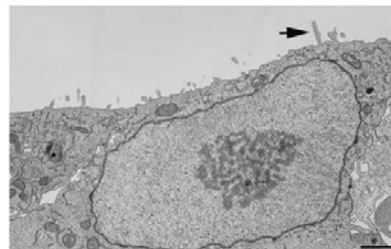
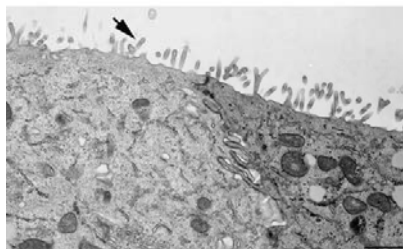
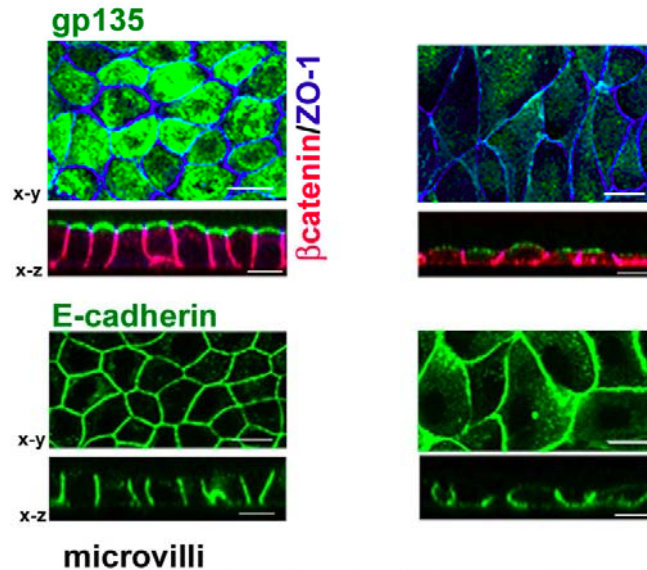
A EMK1-knockdown



B collagen overlay



C Ca-switch



Emk1 knockdown inhibits lumen formation in MDCK cells:

- RT-PCR: EMK1 is effectively knocked down in MDCK cells 24 hours after transfection with P-SUPER (control) or P-SUPER-siEMK1 plasmid; knockdown confirmed on the right with antibodies to EMK1.

- Collagen overlay assay: cells cultured 24 h on collagen I before being overlaid with additional collagen on the apical surface, analyzed 24 h later. Note the lack of lumen in EMK1-KO cultures.

- Ca switch: control or EMK1-KO cells were plated in low Ca medium 24 h upon transfection with pSUPER or pSUPER-KO. After 12 h, cultures were switched to normal medium for 24 h. Transmission EM of cells sectioned perpendicular to the substratum shows lack of microvilli in EMK1-KO cells.



Martin Luther King Jr.

RELIGIOUS LEADER

CIVIL RIGHTS ACTIVIST

AUTHOR/POET

LABOR ACTIVIST

MINISTER

ANTIWAR ACTIVIST



Martin Luther King Jr.

Religious leader

Civil rights activist

Author/poet

Labor activist

Minister

Antiwar activist



FALLING LEAVES OBSERVED

	Delhi	Mumbai	Goa
January	11,532,234	14,123,654	3,034,564
February	1,078,456	12,345,567	16,128,234
March	17,234,778	6,567,123	16,034,786
April	16,098,897	10,870,954	7,940,096
May	8,036,897	10,345,394	14,856,456
June	Too detailed !		3,656
July			5,786
August	8,674,234	18,107,110	17,230,095
September	4,032,045	18,923,239	9,950,498
October	2,608,096	9,945,890	5,596,096
November	5,864,034	478,023	6,678,125
December	12,234,123	9,532,111	3,045,654



FALLING LEAVES IN MILLIONS

In 10 ⁶	Delhi	Mumbai	Goa
January	11	14	3
February	1	12	16
March	17	6	16
April	16	10	7
May			14
June			4
July	8	15	18
August	8	18	17
September	4	18	9
October	2	9	5
November	5	0	6
December	12	9	3

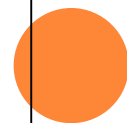
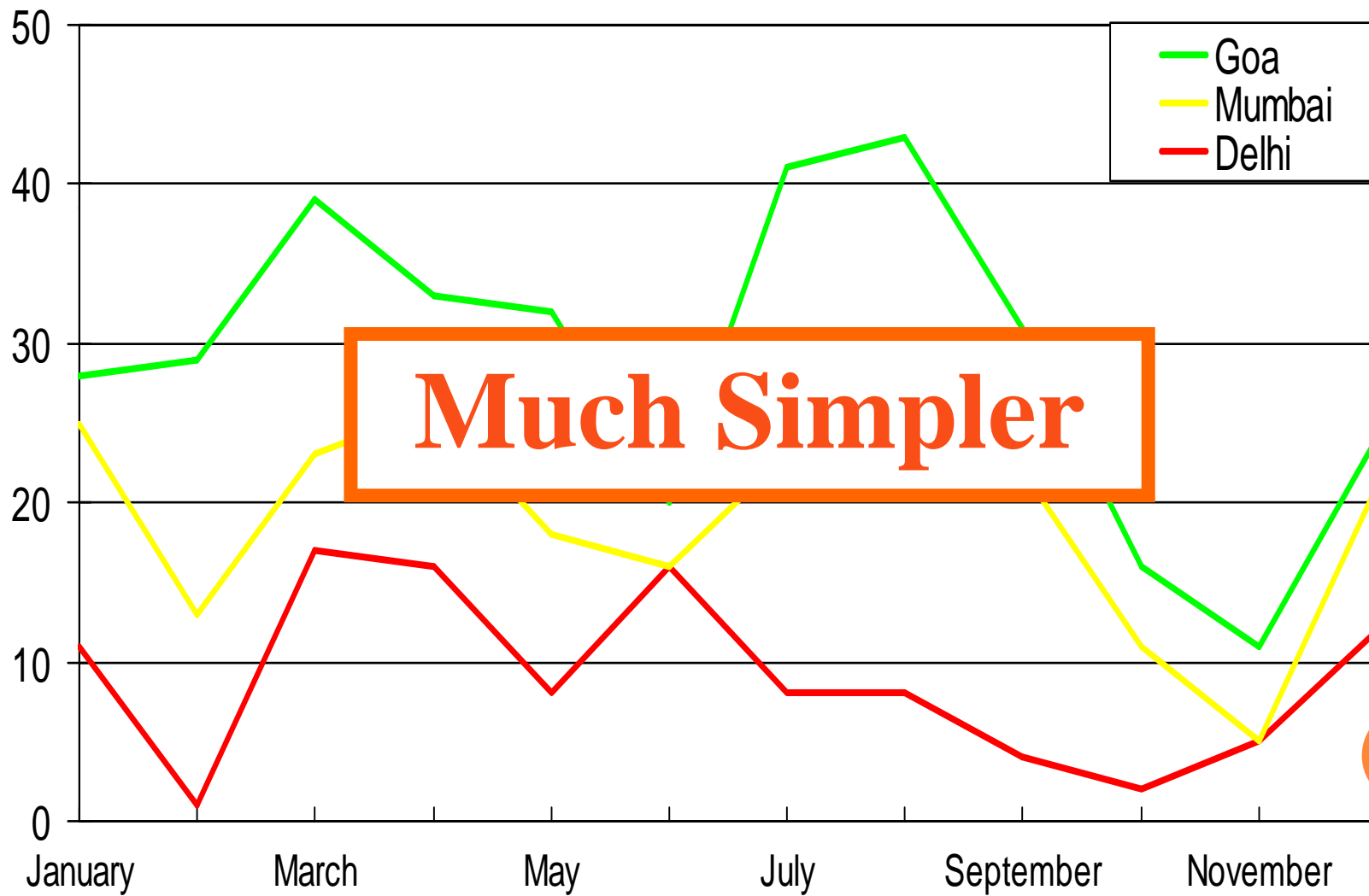
Much Simpler



FALLING LEAVES



FALLING LEAVES





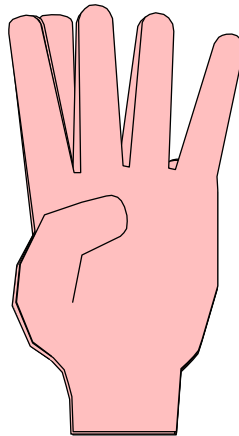
IT SIMPLE (PICTURE)

- Art work may distract your audience
- Artistry does not substitute for content



KEEP IT SIMPLE (SOUND)

- Sound effects may distract too
- Use sound only when necessary

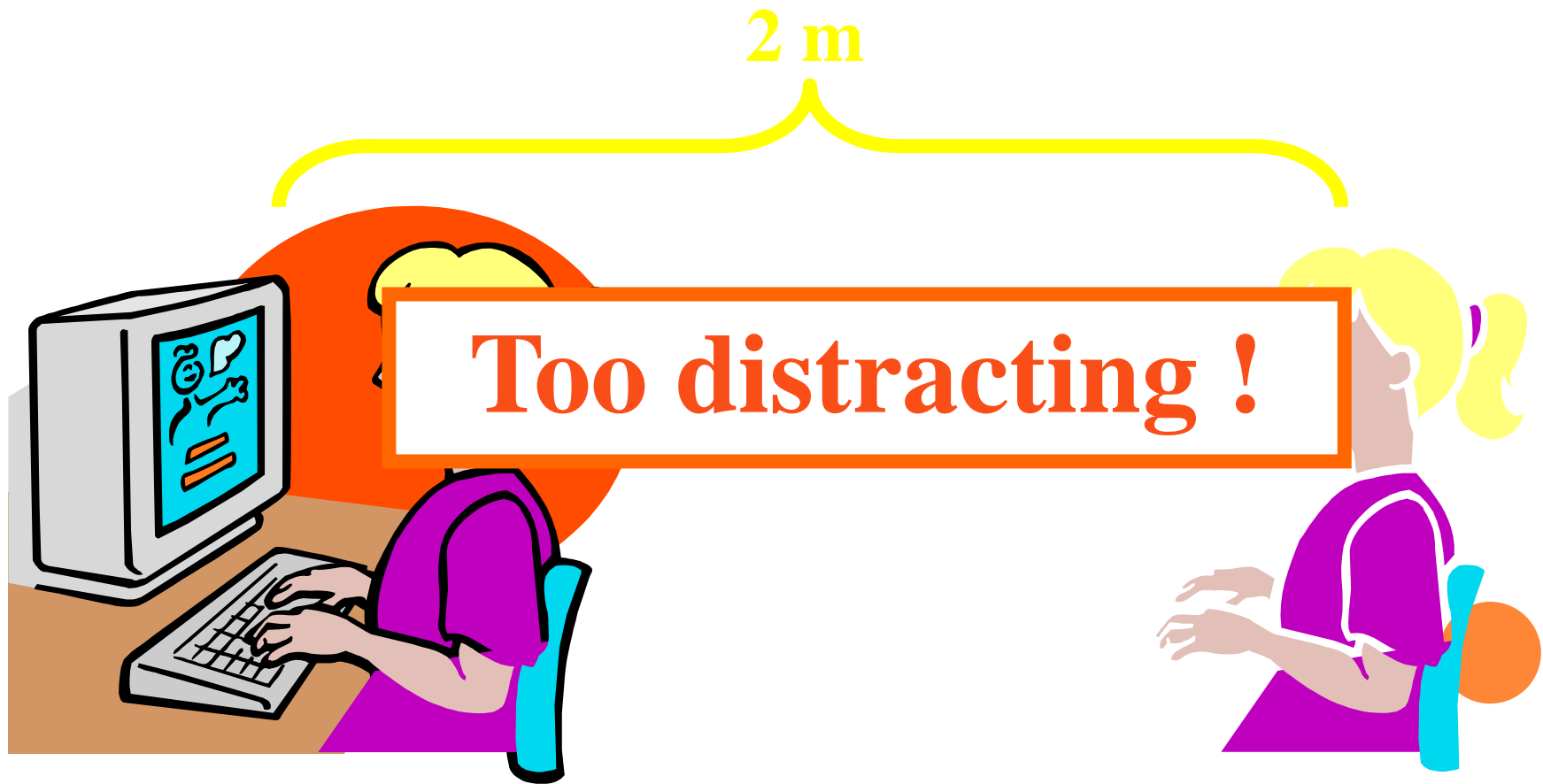


KEEP IT SIMPLE (TRANSITION)

- This transition is annoying, not enhancing
- "Appear" and "Disappear" are better



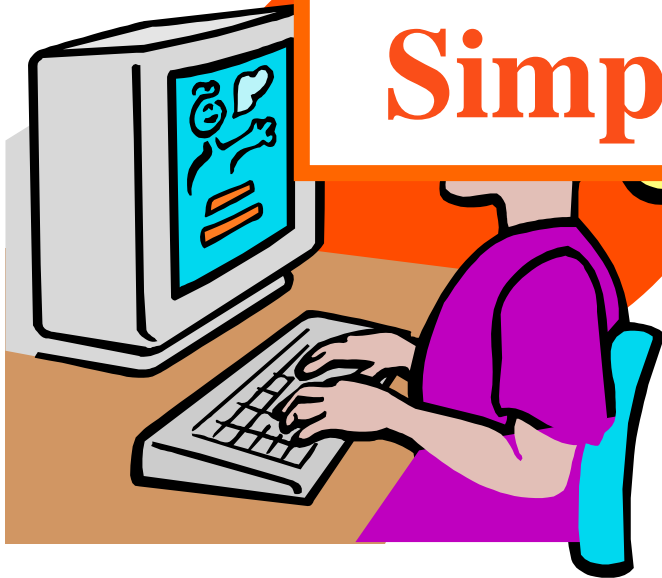
KEEP IT SIMPLE (ANIMATION)

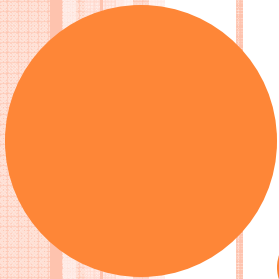


KEEP IT SIMPLE (ANIMATION)

2 m

Simple & to the point





MAKE IT CLEAR


MAKE IT CLEAR (CAPITALISATION)

- ALL CAPITAL LETTERS ARE DIFFICULT TO READ
- Upper and lower case letters are easier



MAKE IT CLEAR (FONTS)

Sanserif



clear

Serif



busy



MAKE IT CLEAR (FONTS)

- Serif fonts are difficult to read on screen
- Sanserif fonts are clearer
- *Italics are difficult to read on screen*
- Normal or **bold** fonts are clearer
- Underlines may signify hyperlinks
- Instead, use **colours** to emphasise



MAKE IT CLEAR (NUMBERS)

Use numbers for lists **with** sequence

For example:

How to put an elephant into a fridge?

1. Open the door of the fridge
2. Put the elephant in
3. Close the door



MAKE IT CLEAR (NUMBERS)

How to put a giraffe into a fridge?

1. Open the door of the fridge
2. Take out the elephant
3. Put the giraffe in
4. Close the door



MAKE IT CLEAR (BULLETS)

Use bullets to show a list **without**

- Priority
- Sequence
- Hierarchy,



MAKE IT CLEAR (BULLETS)

Avoid sublists!

- Item 1
 - Item 1a
 - Item 1b
 - Item 1c
- Item 2
 - Item 2a
 - Item 2b
- Item 3



MAKE IT CLEAR (COLOURS)

- Use contrasting colours
- Light on dark vs dark on light
- Use complementary colours



MAKE IT CLEAR (CONTRAST)

- Use contrasting colours
- Light on dark vs dark on light
- Use complementary colours

↑ low contrast

↑ high contrast



Make It Clear (Contrast)



- Use contrasting colours
- **Light on dark vs dark on light**
- Use complementary colours

This is light on dark

Make It Clear (Contrast)

- Use contrasting colours

Light on dark vs dark on light

Use complementary colours

This is dark on light

Make It Clear (Contrast)

Avoid red-green combinations because a large fraction of the human population is red-green colorblind.

Lots of people can't read this -
and even if they could, it makes your eyes hurt.

MAKE IT CLEAR (COMPLEMENT)

- Use contrasting colours
- Light on dark vs dark on light
- Use complementary colours

These colours do not complement



MAKE IT CLEAR (COMPLEMENT)

- Use contrasting colours
- Light on dark vs dark on light
- Use complementary colours

These colours complement



MAKE IT CLEAR (SIZE)

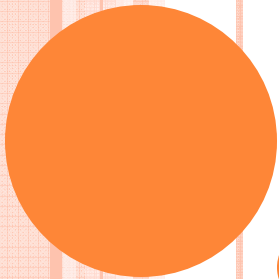
- Size implies importance



MAKE IT CLEAR (SIZE)

- Size implies importance





BE CONSISTENT

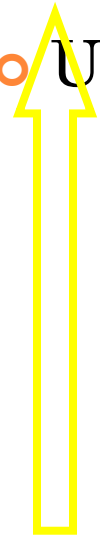
BE CONSISTENT

- Differences draw attention
- Differences may imply importance
- Use surprises to attract not distract



BE CONSISTENT

- ✓ Differences draw attention
- Differences may imply importance
- Use surprises to attract not distract



This tick draws attention



BE CONSISTENT

- ✓ Differences draw attention
- Differences may imply importance
- Use surprises to attract not distract



These differences distract!



BE CONSISTENT

- Differences draw attention
- Differences may imply **importance**
- Use surprises to attract not distract

This implies importance



BE CONSISTENT

- Differences draw attention
- Differences may imply importance
- Use surprises to attract not distract

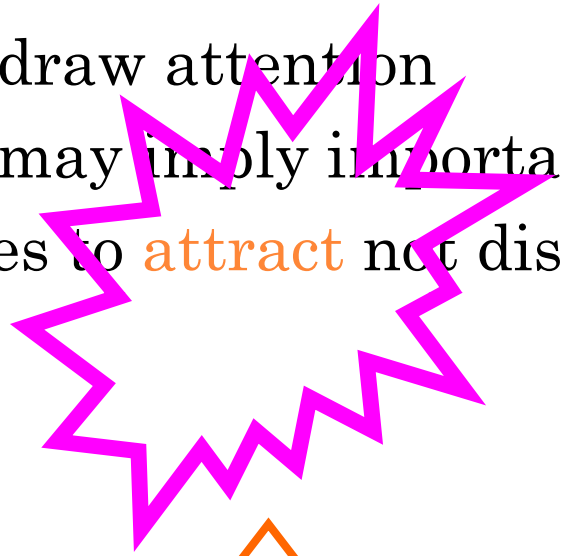


Confusing differences!



BE CONSISTENT

- Differences draw attention
- Differences may imply importance
- Use surprises to **attract** not distract

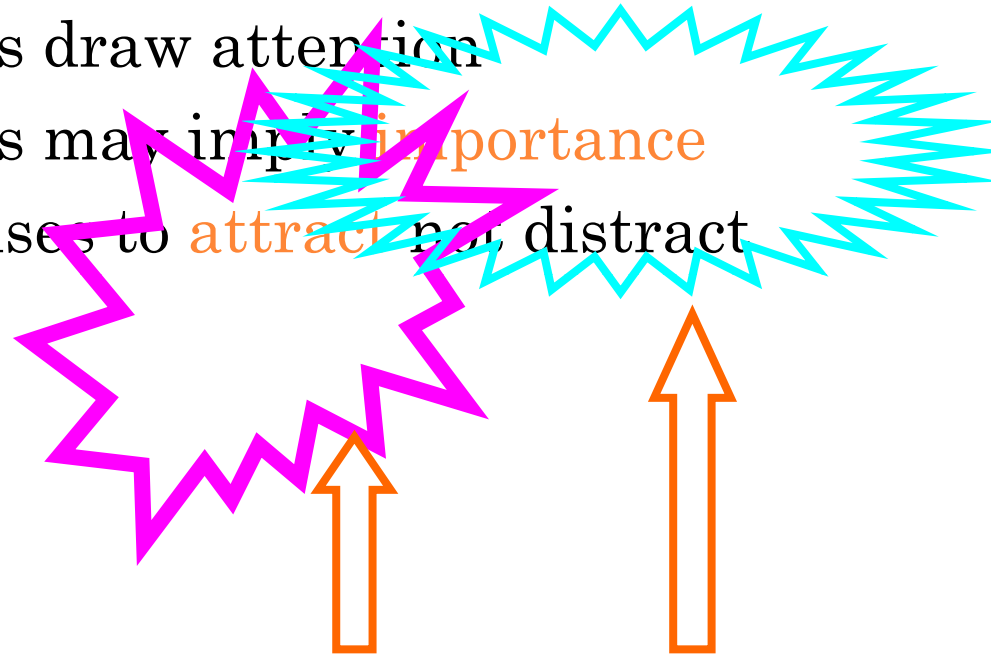


This surprise attracts



BE CONSISTENT

- Differences draw attention
- Differences may improve importance
- Use surprises to attract not distract



These distract!



FINAL WORDS



IN SUMMARY

- Big
- Simple
- Clear
- Consistent



BASIC RULES

Keep it simple..

- Make bulleted points easy to read.
- Keep text easy to understand.
- Use concise wording.
- Bullets are focal points.
- Presenter provides elaboration.
- Keep font size large.



BASIC POWER POINT GUIDELINES

- Use builds...don't give them too much info at once.
- Stick with the same transition.
- Be creative but leave some color choices to professionals.
- Seven words per line.
- Six lines per page.



WHEN CREATING

- Text to support the communication
- Pictures to simplify complex concepts
- Animations for complex relationships
- Visuals to support, not to distract
- Sounds only when absolutely necessary
- Think about the people in the back of the room when creating slides



WHEN PRESENTING

- Speak loudly and clearly with fluctuation
- Direct your words to all aspects of the room
- Maintain eye contact with your audience
- Ask questions of your audience
 - (if applicable)
- Don't read the slides word-for-word, use them for reference



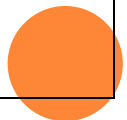
CLOSING REMARKS

- Practice your presentation before a neutral audience
 - Ask for feedback
- Be particular about the time allotted for presentation
- Leave time for questions



HERE ARE SOME OF THE THINGS MANY LISTENERS WANT FROM A TALK:

CONTENT Conveys new information Poses an interesting question Conveys how people in other fields think Describes important ideas Novel discovery	CLARITY AND ORGANIZATION Understandable Avoids jargon Uses clear and simple visual aids Well organized Enables me to catch up if I space out Doesn't run over time
STYLE AND DELIVERY Keeps me awake Varies voice Conveys enthusiasm Doesn't stay in one place Friendly and approachable	EXPERTISE Credible Inspires trust and confidence Answers questions clearly



CLOSING REMARKS

- Use an effective and strong closing
 - Your audience is likely to remember your last words
- Use a conclusion slide to:
 - Summarize the main points of your presentation
 - Suggest future avenues of research



QUESTIONS??

- End your presentation with a simple question slide to:
 - Invite your audience to ask questions
 - Provide a visual aid during question period
 - Avoid ending a presentation abruptly



IMPORTANT !!!



IMPORTANT INSTRUCTIONS – FOR PRESENTER

- Come prepared
- Keep calm
- Don't Over React
- Be Confident
- Dress properly (Formal)



IMPORTANT INSTRUCTIONS – FOR AUDIENCE

- You are not allowed to use laptops/mobiles
- All students have to be present in class throughout the presentation
- Talking is not allowed
- No one should laugh at presenter
- No one should pass comments or show gestures to the presenter

Violation of any of the above will result in deduction of marks (10 marks), on 2nd instance if you are found guilty, you will be marked ZERO in presentation 😞



REFERENCES

- Designing Effective “PowerPoint Presentations”
By Satyajeet Singh
- Research talk 101, by Lucia Dettori
- The Craft of Scientific Presentations by Michael Alley
- “Giving an effective presentation:
Using Powerpoint and structuring a scientific
talk” based on a presentation at the 2005 Pew
Foundation meeting by Susan McConnell



Thanks!

