

# How to give a talk

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# Outline

- **Preparation**
- Presentation

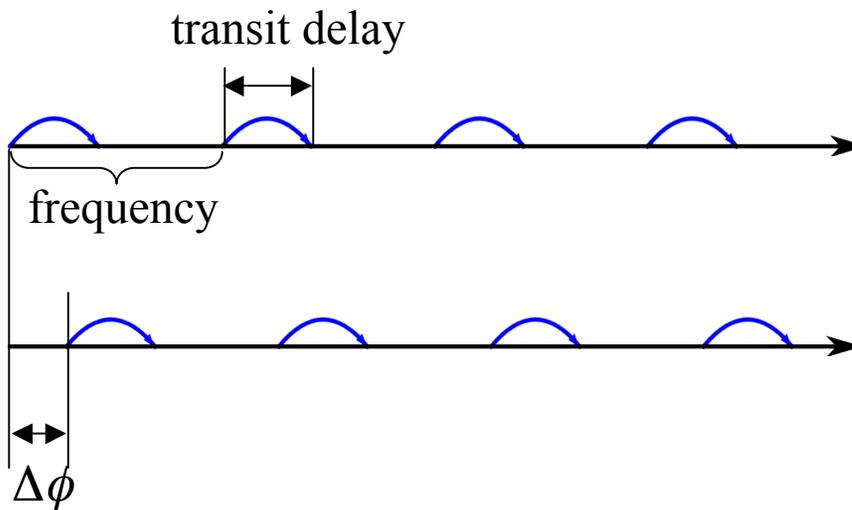
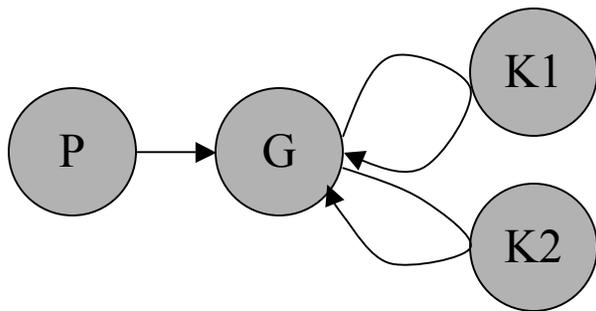
# Rule 1: Tell a story

- Background
  - “Once upon a time, ...”
- Problem
  - “The ogre ate all the apples, so the children went without...”
- Solution
  - “The anti-ogre fence...”
- Evaluation
  - “Ogre infestations declined 58% over 5 years...”
- Conclusions
  - “We recommend anti-ogre fences”

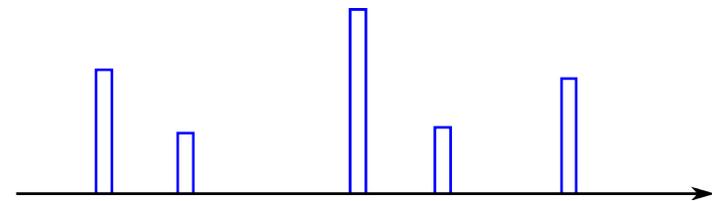
## Rule 2: 1-2-3 rule

- **One** idea per slide

# Microbenchmarks



Traffic Model: Batched Poisson



load = mean batch size / mean batch interval

Load	0.45
Allowed Rate	0.5
Frequency	12 / day
Transit Delay	60 min
$\Delta\phi$	180°

## Rule 2: 1-2-3 rule

- **Two** minutes per slide
- 30 minute talk: no more than 15 body slides
  - unless very sparse
  - like this talk!

## Rule 2: 1-2-3 rule

- At most **three** topics
  - figure them out first
  - depends on the nature of the audience
  - work backwards

## Rule 3: Use outlines

- Outlines show *connections*
  - as important as the details
- Start with an outline
- Repeat the outline or section title for each section
  - 'roadmap'

## Rule 4: Use few words

- "Words on presentation slides are a very good idea, but only when the audience is deaf."
  - Prof. W. Cowan, University of Waterloo

For example...

- A lush green valley in the Himalayas, looking down a thousand meters to stepped rice fields by a rushing river



## Rule 5: Use friendly fonts and colours

- **KIOSKNET ARCHITECTURE**
- *Downlink Scheduling*
  - ▶ *Problem Definition*
  - ▶ *Existing Approaches*
  - ▶ *Our Solution*
  - ▶ *Simulation*
- *Implementing the KioskNet System*
- Especially for graphs

Rule 6: Never show tables when you can show graphs

Table 4. Cases of meningococcal disease in Dublin 1998 by area of residence

Area	Cases	
	n	%
1	2	5
2	1	3
3	2	5
4	2	5
5	8	22
6	7	19
7	10	27
8	2	5
9	2	5
10	1	3
Total	37	100

# The area map



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## Rule 8: Use examples

- As in this talk!

## Rule 9: Avoid colloquialisms

- It's like, duh

## Rule 10: Describe related and past work

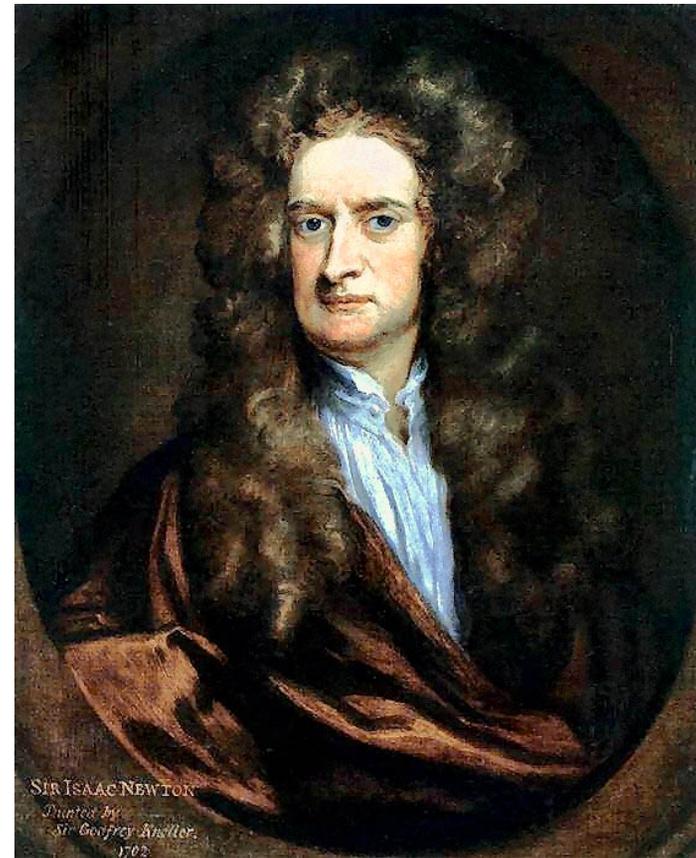
“If I have seen further it is only by standing on the shoulders of Giants.”

*Isaac Newton*

## Rule 4 & 10: Describe related and past work

“If I have seen further it is only by standing on the shoulders of Giants.”

*Isaac Newton*



## Rule 11: Talk about your contributions

- Don't make the audience guess what they are

## Rule 12: Highlight insights

- The story behind the work is what audiences come to talks for
  - What didn't work? Why?
  - What would you do differently next time?

## Rule 13: End with a summary slide

- Leave it up on the screen when you stop for questions

# Outline

- Preparation
- **Presentation**

## Rule 1: Talk to the audience, not the screen

- Scan the audience, see if they are understanding
- Pace your talk

## Rule 2: Never read from notes

- Expand from 'headlines'

## Rule 3: Walk audiences through formulae

$$\log N^*(t) = \log \left( \prod_{i=1}^n N^i \left( \frac{t}{\sigma} \right) \right) = \sum_{i=1}^n \log \left( N^i \left( \frac{t}{\sigma} \right) \right) \approx \sum_{i=1}^n \log \left( 1 + \frac{(\sigma^i)^2}{2} \left( \frac{t}{\sigma} \right)^2 \right) \quad (\text{EQ 14})$$

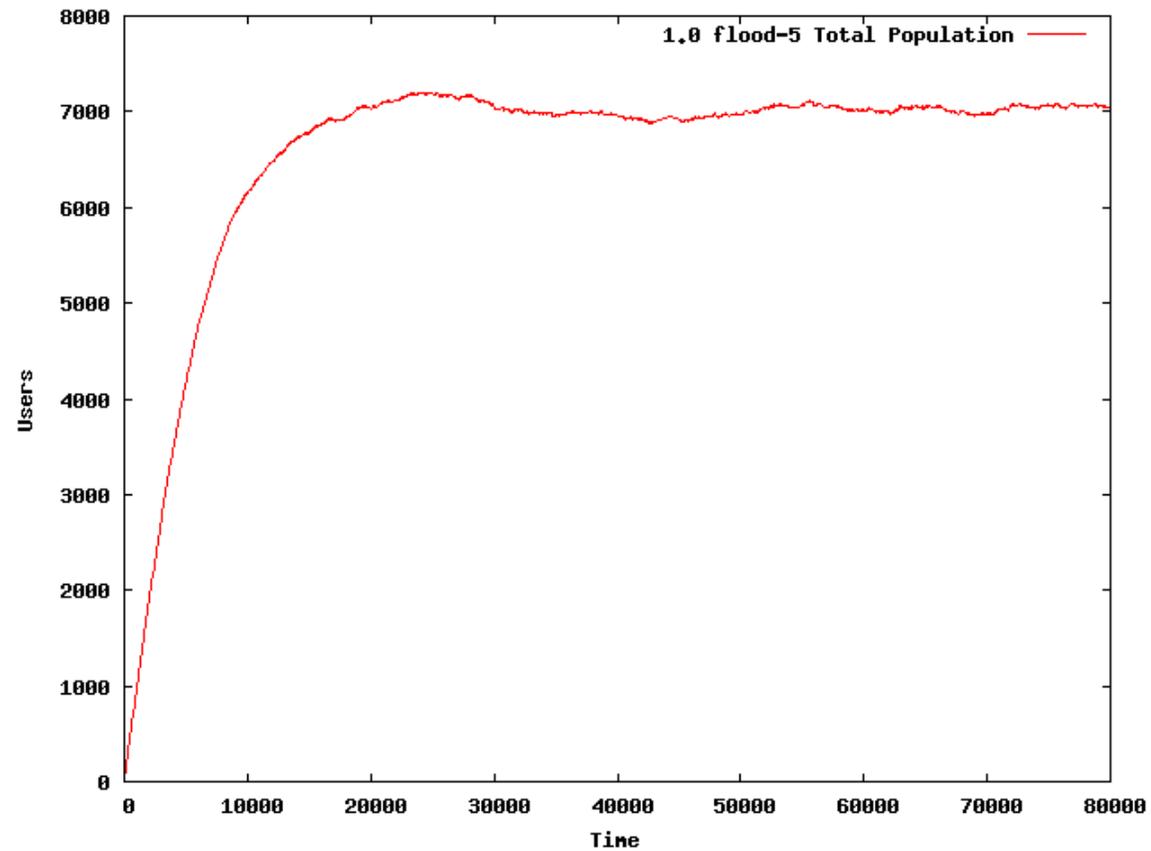
It is easily shown by the Taylor series expansion that when  $h$  is small (so that  $h^2$  and higher powers of  $h$  can be ignored)  $\log(1+h)$  can be approximated by  $h$ . So, when  $n$  is large, and  $\sigma$  is large, we can further approximate

$$\sum_{i=1}^n \log \left( 1 + \frac{(\sigma^i)^2}{2} \left( \frac{t}{\sigma} \right)^2 \right) \approx \sum_{i=1}^n \frac{(\sigma^i)^2}{2} \left( \frac{t}{\sigma} \right)^2 = \frac{1}{2} \left( \frac{t}{\sigma} \right)^2 \sum_{i=1}^n (\sigma^i)^2 = \frac{1}{2} t^2 \quad (\text{EQ 15})$$

where, for the last simplification, we used Equation 10. Thus,  $\log N^*(t)$  is approximately  $1/2 t^2$ , which means that

$$N^*(t) \approx e^{\frac{t^2}{2}} \quad (\text{EQ 16})$$

## Rule 4: Always introduce graph axes



Rule 5: Speak slowly and clearly

## Rule 6: Respect questioners

- Hear questions fully
- Defer them if needed

## Rule 7: Practice makes perfect

- Practice a talk at least three times
- Talk in front of a mirror
- Have it videotaped, if possible

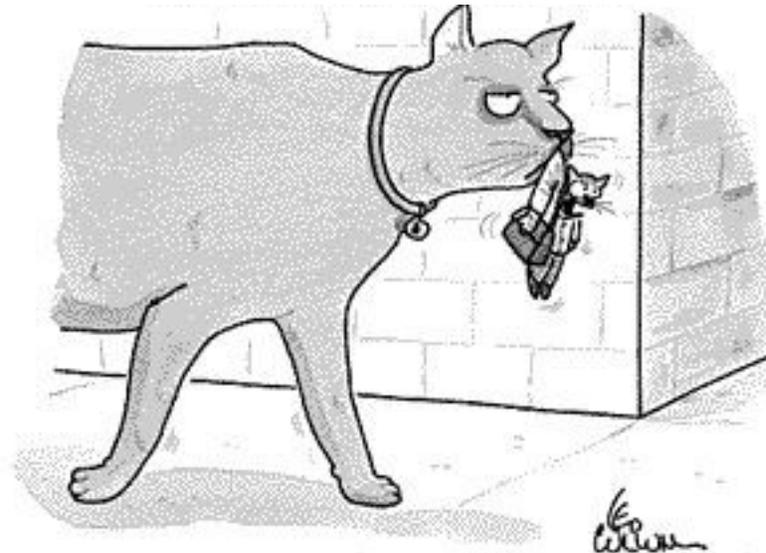
## Rule 8: Arrive early

- Test your laptop or better yet, borrow one
- Bring a memory stick
- Do the talk on a white/black board if necessary

## Rule 9: Bring a pointer

- Laser, stick, or pen

## Rule 10: A little humour goes a long way



*"This is humiliating. Couldn't you drop me a block from school?"*

From *The New Yorker*

## Rule 11: End on time

- Keep track of the time



# Summary

- Rule 1: Tell a story
- Rule 2: 1-2-3 rule
- Rule 3: Use outlines
- Rule 4: Use few words
- Rule 5: Use friendly fonts and colours
- Rule 6: Never show tables when you can show graphs
- Rule 7: Typos reflect poorly on your competence
- Rule 8: Use examples
- Rule 9: Avoid colloquialisms
- Rule 10: Describe related and past work
- Rule 11: Talk about your contributions
- Rule 12: Highlight insights
- Rule 13: End with a summary slide
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- Rule 2: Never read from notes
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