

The importance of being Ernest – a trivial comedy for serious people

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BIRS Workshop July 2017
Challenges in the statistical modeling
of stochastic processes for the natural sciences
In honour of Peter Guttorp



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The importance of being Ernest. Oscar Wilde, 1895

1895: Oscar Wilde said that the play's theme was

That we should treat all trivial things in life very seriously
and all serious things of life with a sincere and studied triviality.

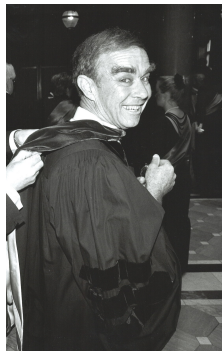
In the play, Wilde "refuses to play the game" of other dramatists of the period, for instance Bernard Shaw, who used their characters to draw audiences to grander ideals.

Grander ideals or Trivial things: How is it at all possible to "communicate advances in and applications of stochastic modeling in the natural sciences" to "the public". Grand ideals is what guides scientists, Trivial (but important) things are what (we think) guide the public.

The importance of being “serious”

Three statistics honorary doctors at Lund University

Ross Leadbetter 1991



PG 2009



Henrik Madsen 2017



Are these Honorary Doctors serious/ernest/happy/trivial?

What do these 2017 honorary doctors, Faculty of Engineering, have in common?



Answer: They enjoy what they are doing!

Three stories on today's theme:



- How explain HMM (Hidden Markov models) to the public through the meandering of a cod fish/Henrik Madsen



- How value a possible cell/mobile phone health hazard to other risks in society



- For the breakout: Who are the public, whom do you reach? How attract young people (women) to engineering studies as a stand up comedian/Karin Adelsköld

What, how, to whom?

Three stories dealing with three questions:

- What can you communicate?
- How can you communicate?
- Who are the public?

Story 1: What can HMM = Hidden Markov Models do for fishermen in UK?



Story told by Henrik Madsen:

Where is the fish? Fishermen want to know – want the catch, now (and in the future?)

How many are there? Public wants to know – want to eat the catch, now and in the future



Pages and movie from Henrik Madsen's lecture

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- The public? HOW – visibility!

Story 2: The case of cell phones and cancer



2016 report on Cell phones and cancer risk:

- Danish Study
- How the study was done: This cohort study, conducted in Denmark, linked billing information from more than 358,000 cell phone subscribers with brain tumor incidence data from the Danish Cancer Registry.
- What the study showed: No association was observed between cell phone use and the incidence of glioma, meningioma, or acoustic neuroma, even among people who had been cell phone subscribers for 13 or more years (13–15).

How interpret vague findings?

2004 Swedish Research Council report on national and international research.

Some studies reported an increase in acoustic neuroma incidence of 5-15% among heavy phone users, most studies did not

Journalists called and were worried.

GL (2004): **If there is an increased risk, the increase is not big**

Journalist: **Can you relate that answer to something?**

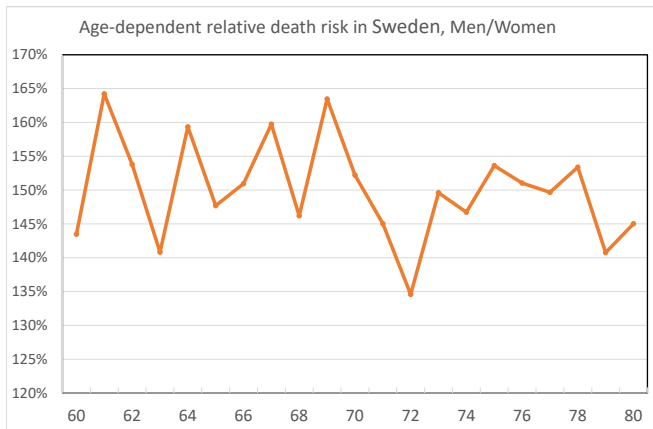
- Is a 10% increase in risk **ALARMING** ?
- Is a 50% increase in risk **CATASTROPHIC** ?

Relative risk of being a man compared to being a woman

- Sweden, 2016, women live longer. For men/women, aged 60 – 80, is increase in age dependent death rate 10%, 20%, 50%, 80% ?

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The importance of being RELEVANT

A relevant couple!



Peter "Pontifex maximus"

