Freeing Statistics from Statics
Empowering Individuals

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The Opportunity

• WWW access to robust and authentic evidence

• Open access to informed debate

• Democracies revitalised by informed citizens
The Problem

• Misinformation - astroturfing etc

• Media ‘tapestries’ – weaves of
  – theory, opinion, information, misinformation

• Low levels of ‘statistical literacy’
Illustration – Theories implicit in data exploration

• Sex change or lower cholesterol?

– Are Satins better than Statins?
Research Question

• What do naïve users DO when faced with media opinion and authentic data?
The Study

• Students aged 13-15 years
• 250 students in 90 groups from 9 classes in 4 schools across the attainment range

• A mash-up
  – Interactive, MV display of national survey data on alcohol consumption by 11-15 year olds
  – News articles e.g. UK hit by Booze Girls’ Crimewave

• Task: create
  – A video; or
  – An article for a tabloid or a broadsheet
Analysing Students’ Work

• 13/90 - discussed 2 way interactions

• 19/90 described trends clearly and accurately

• 54/90 – accurate use of data to critique media accounts

• 83/90 made use of data

• 19/90 introduced NEW information
So What?

Optimism!
- Spontaneous use of ‘hard’ statistical ideas
- Critique of media errors
- Spontaneous access to other sources

Actions
- Media - embrace multivariate interactive displays!
- Governments – create interactive documents!
- Educators – reform the curriculum!

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