

iChart

Interactive Exploration of Data Charts

Michel Wermelinger
Paul Piwek



The data is about the number of people aged 50 and over in the UK. It gives the number by year, from 1901 until 2031. The figures for 2009 until 2031 are projections. In 1911, there were about 5 million people aged 50 or over. The number has steadily increased, with over 27 million projected for 2031.



Context and aims

- Charts (e.g. line diagrams) widely used in popular media, OU modules, etc., but under control of producer
- **Pedagogic aims:**
 - improved understanding and engagement of students with numerical data
 - improved accessibility of charts used in course materials
- **Societal impact:** help citizens look critically at statistics thrown at them
- **eSTeEM L&T aims:** assessment; online experimentation; mobile technologies and use of multimedia; emerging VLE capabilities

Outcomes and Methodology

- a software tool to produce interactive and accessible charts
 - gather and prioritize requirements through open workshop with module teams, LTS, IET, etc.
 - build on standard technologies and libraries (SVG, Flash, Processing, etc.)
 - use multimodal presentation (graphics and audio)
 - aim to integrate with VLE and OpenLearn and to run on mobile platforms
- a software tool to produce textual summaries of charts
 - offer topic as MSc project
- examples of pedagogical activities with interactive charts
 - adapt existing activities, e.g. on Arrhenius graphs in TXR220 and on deceptive graphs in TU100
 - gather feedback from tutors and students on efficacy of interactive and accessible charts
- dissemination
 - put software, papers and pedagogical demonstrations on ORO, OpenLearn, iTunes
 - contact teams behind Google's Visualization Kit, IBM's ManyEyes, Guardian's Datastore, etc.