

# Human-Computer Interaction

## Lecture 2: Visual representation

	Graphic Resources	Correspondence	Design Uses
Marks	Shape Orientation Size Texture Saturation Colour Line	Literal (visual imitation of physical features) Mapping (quantity, relative scale) Conventional (arbitrary)	Mark position, identify category (shape, texture colour) Indicate direction (orientation, line) Express magnitude (saturation, size, length) Simple symbols and colour codes
Symbols	Geometric elements Letter forms Logos and icons Picture elements Connective elements	Topological (linking) Depictive (pictorial conventions) Figurative (metonym, visual puns) Connotative (professional and cultural association) Acquired (specialist literacies)	Texts and symbolic calculi Diagram elements Branding Visual rhetoric Definition of regions
Regions	Alignment grids Borders and frames Area fills White space Gestalt integration	Containment Separation Framing (composition, photography) Layering	Identifying shared membership Segregating or nesting multiple surface conventions in panels Accommodating labels, captions or legends
Surfaces	The plane Material object on which the marks are imposed (paper, stone) Mounting, orientation and display context Display medium	Literal (map) Euclidean (scale and angle) Metrical (quantitative axes) Juxtaposed or ordered (regions, catalogues) Image-schematic Embodied/situated	Typographic layouts Graphs and charts Relational diagrams Visual interfaces Secondary notations Signs and displays

# ANALYSIS EXAMPLES

Kyrie eleison (I)  
Adagio

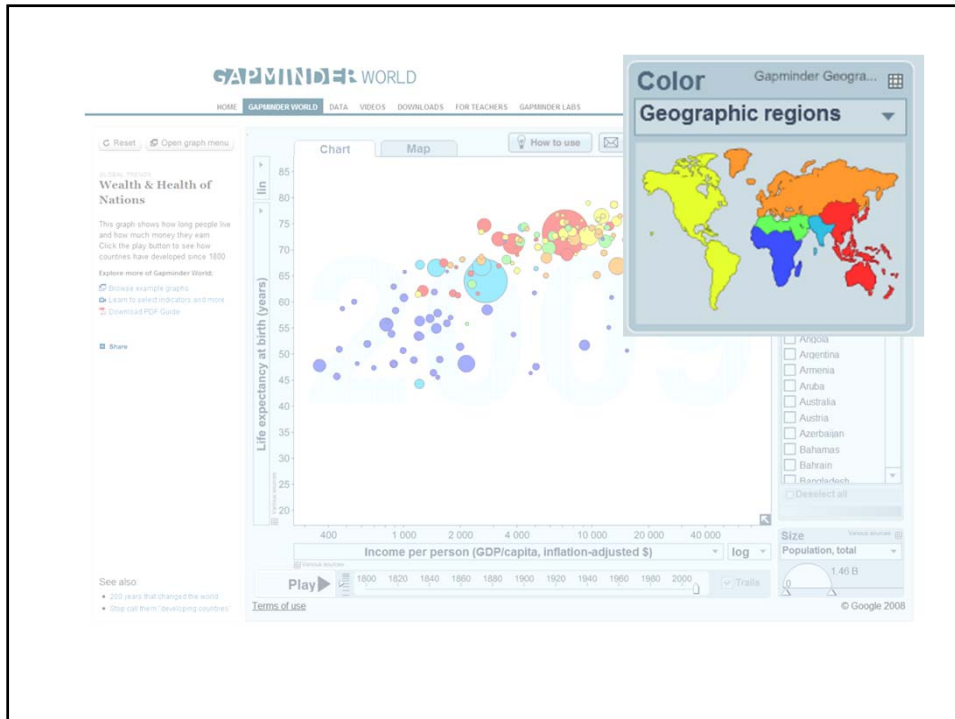
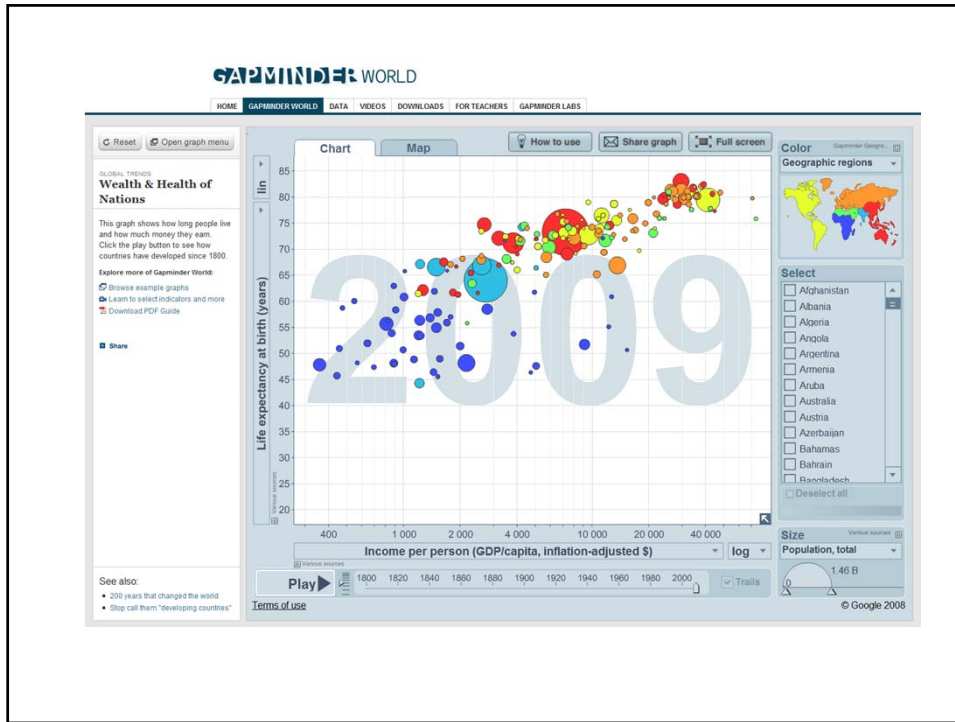
The score is for a Kyrie eleison (I) in G major, Adagio. It features a woodwind section with Flauto traverso 1 & 2, Oboe d'amore 1 & 2, Fagotti, Violino 1 & 2, Viola, and Continuo. The vocal soloists include Soprano 1 & 2, Alto, Tenore, and Basso. The lyrics are: Ky - ri - e, Ky - ri - e - lei - son, e - lei - son, e - lei - son.

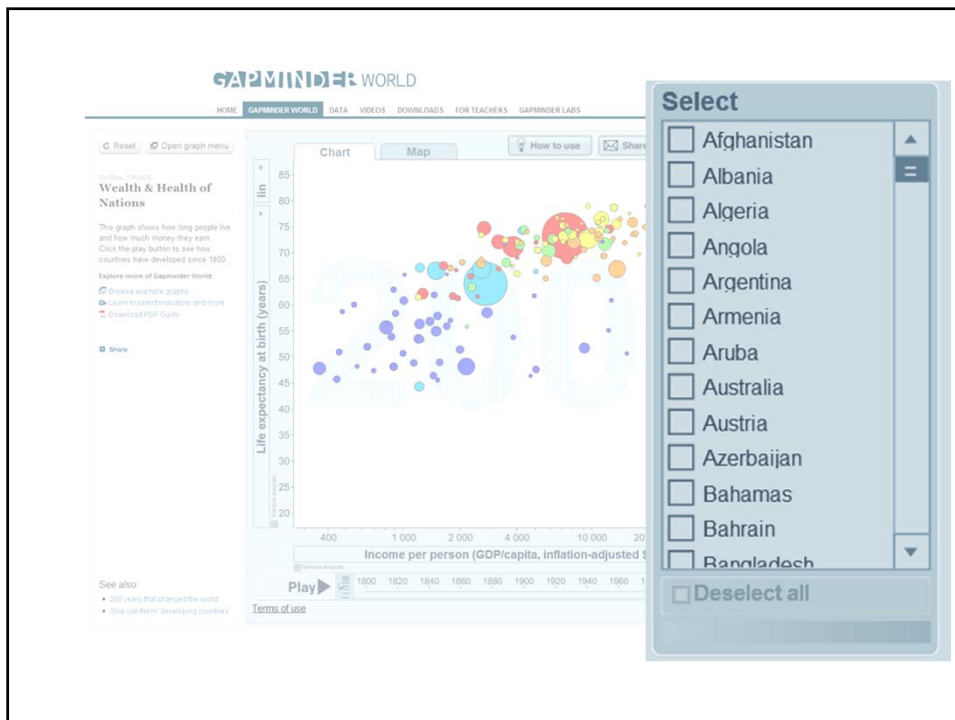
**Flauto traverso 1**  
**Flauto traverso 2**  
**Oboe d'amore 1**  
**Oboe d'amore 2**  
**Fagotti**  
**Violino 1**  
**Violino 2**  
**Viola**  
**SOPRANO 1**  
 Ky - ri - e, Ky - ri - e - lei - son, e - lei - son, e - lei - son.  
**SOPRANO 2**  
 Ky - ri - e - lei - son, e - lei - son, e - lei - son, e - lei - son.  
**ALTO**  
 Ky - ri - e e - lei - son, Ky - ri - e e - lei - son.  
**TENORE**  
 Ky - ri - e, Ky - ri - e, Ky - ri - e e - lei - son.  
**BASSO**  
 Ky - ri - e, Ky - ri - e, Ky - ri - e e - lei - son.  
**Continuo**  
 7 6 2 6 9 8 3 6 5 6 7 6 2

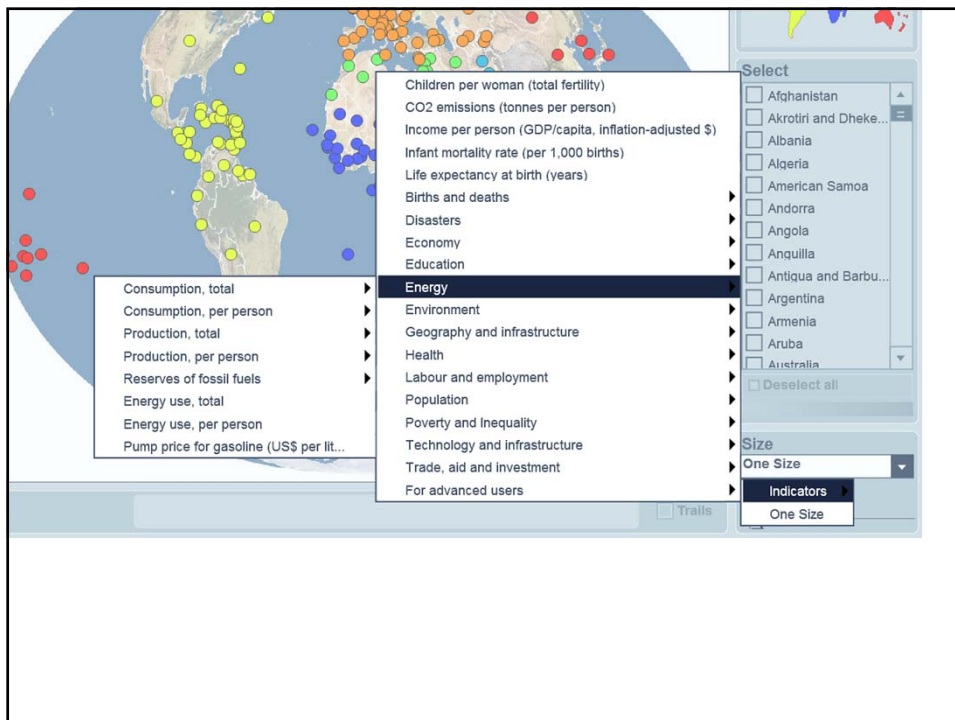
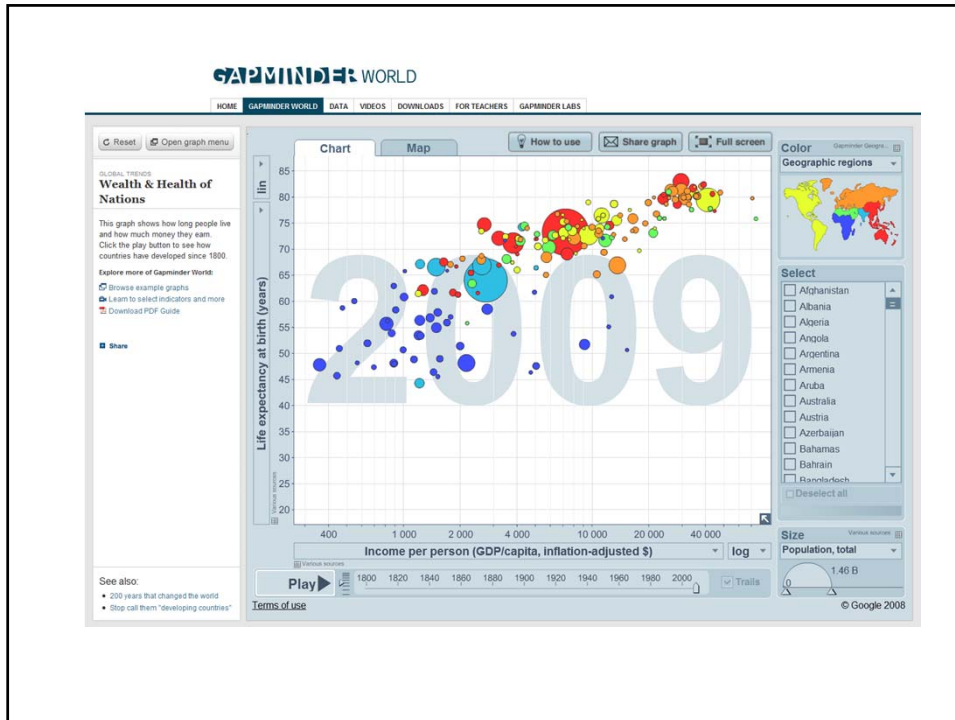
*BASSO*

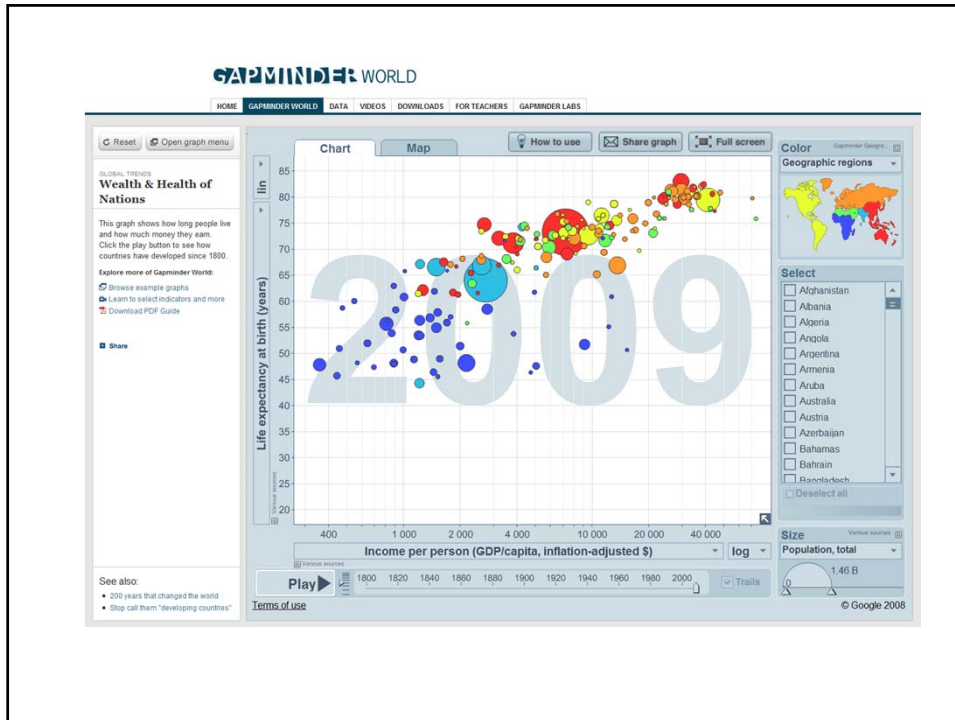
The image shows a musical score for a Bass part. It consists of two measures of music on a single staff. The first measure contains the notes G2, A2, B2, and C3, with the lyrics 'Ky - ri - e,' underneath. The second measure contains the notes D3, E3, F3, and G3, with the lyrics 'Ky - - ri - e,' underneath. The key signature has one sharp (F#) and the time signature is common time (C).

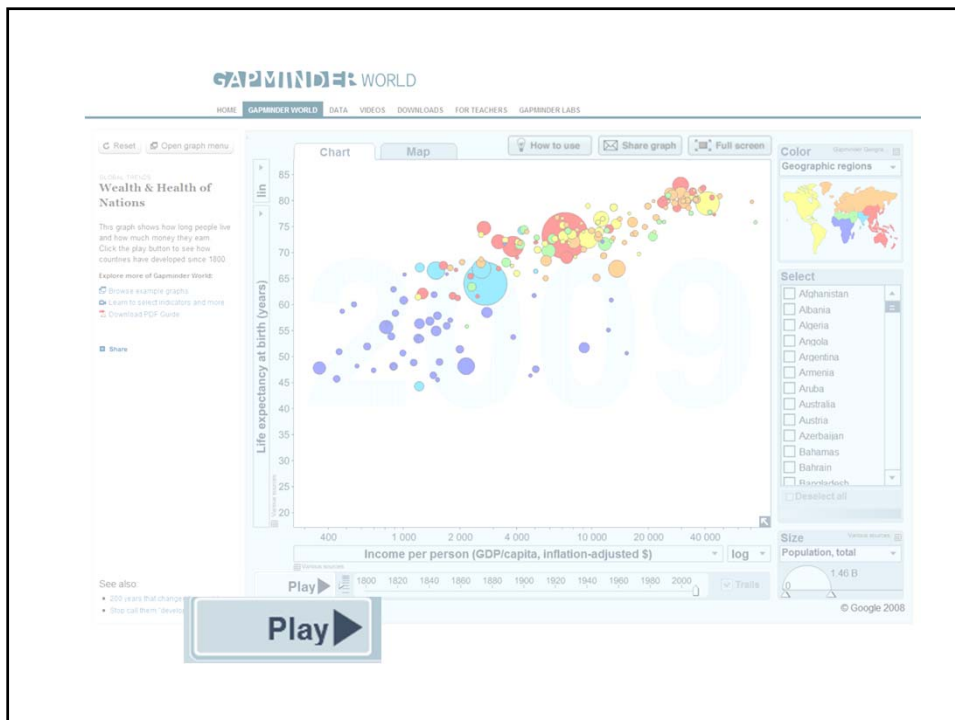
	Graphic Resources	Correspondence	Design Uses
Marks	Shape	Conventional (arbitrary)	Mark position identify category (shape)
Symbols	Geometric elements Letter forms Connective elements	Topological (linking) Acquired (specialist literacies)	Texts Definition of regions
Regions	Alignment grids White space	Containment Separation	Segregating and nesting multiple surface conventions in panels Accommodating labels
Surfaces	Material object on which the marks are imposed (paper)	Metrical (quantitative axes) Juxtaposed and ordered (regions)	Musical score





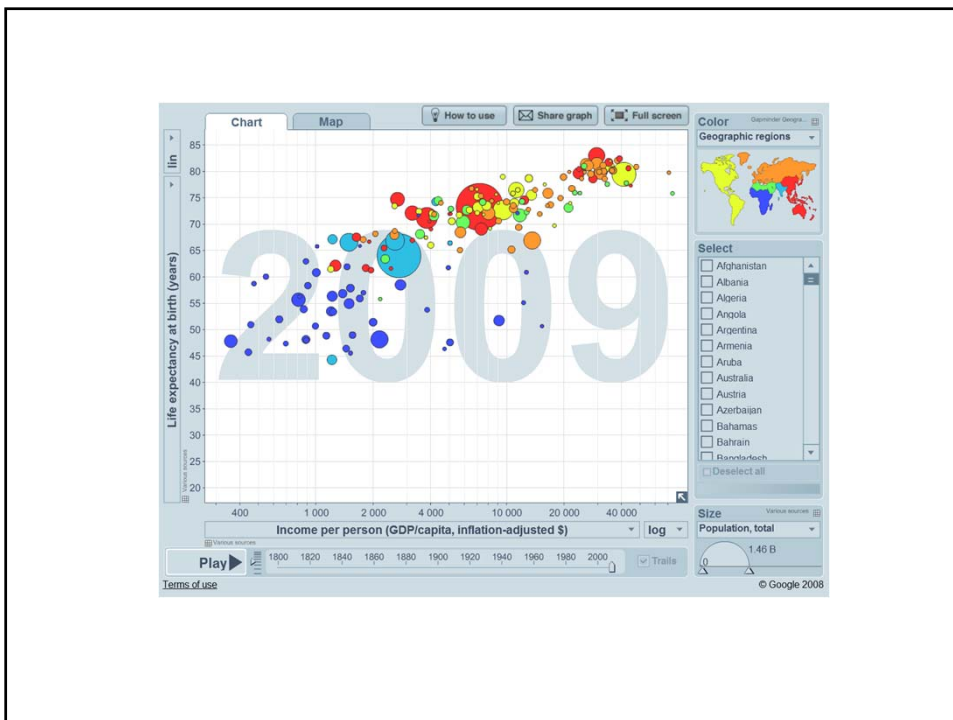
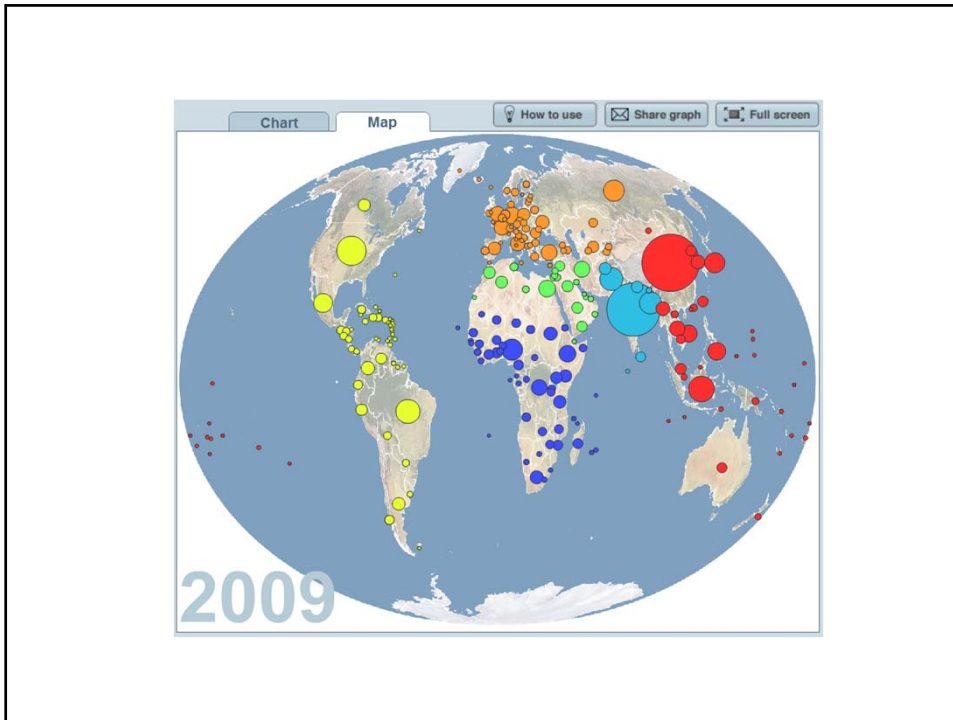


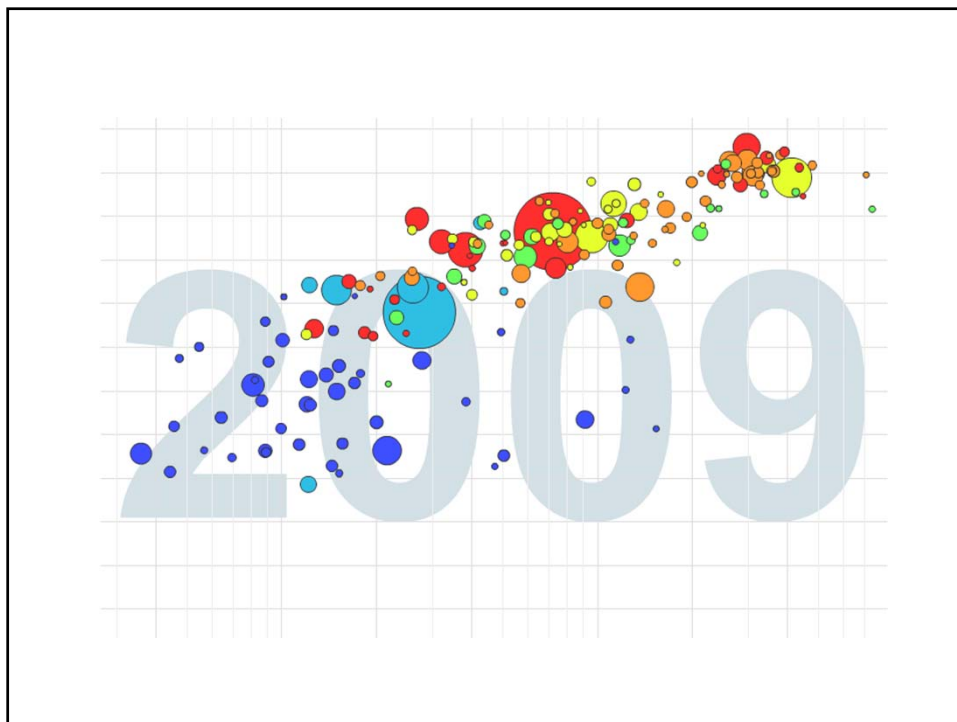
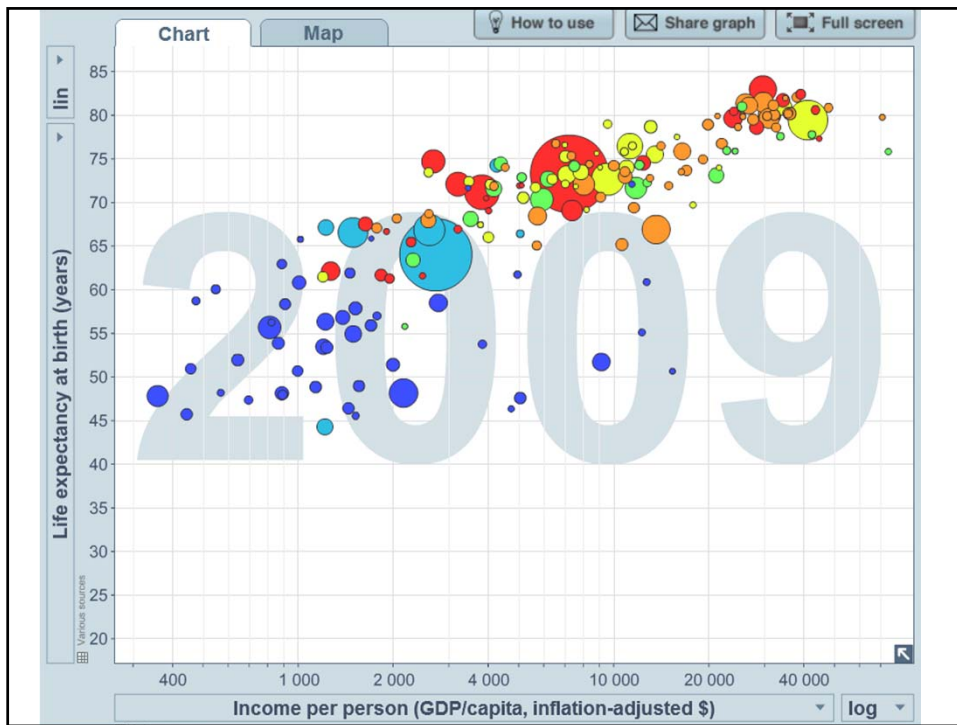












	Graphic Resources	Correspondence	Design Uses
Marks	Size Colour	Mapping (quantity, relative scale)	Mark position identify category (colour) Express magnitude (size)
Symbols	Geometric elements Connective elements	Topological (linking)	Diagram elements Visual rhetoric
Regions	Alignment grids	Containment Separation Framing (composition)	Segregating or nesting multiple surface conventions in panels Accommodating labels, captions or legends
Surfaces	Display medium (web browser)	Metrical (quantitative axes) Image-schematic?	Graphs and charts

**WORKED EXAMPLE**

## Parsing Human Rights

*Do concepts have histories? The answer that immediately feels right is 'Yes. Everything has a history'. But on closer inspection it turns out that we in fact know very little about concepts. [This project is] tracking the history of the concept of human rights, and in order to begin doing that it first develops a new account of conceptual forms as cultural entities. This allows one to parse a specific concept and describe its grammar and syntax through the use of a technique of analysis made possible by the digital archive.*

Prof. Peter de Bolla