

## Online Data Interpretation Tools

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### Collaborative Spreadsheets

Online spreadsheets allow students to record, sort, analyze, and display data in a web-based collaborative environment. Multiple users can edit and share the file over the Internet with real-time updates.

#### EditGrid

[www.editgrid.com](http://www.editgrid.com)\*

Use EditGrid\* spreadsheets to share, collaborate, and publish. Built-in spreadsheet functions allow you to connect to live data sources. Personal spreadsheets are hosted for free with a maximum upload size limit of 2MB.

#### Google Docs

<http://docs.google.com>\*

Use the spreadsheet feature of Google Docs\* to create a variety of graphs, charts, tables, and other interesting visualizations of data. Digital products include annotated timelines, organizational charts, gauges, and motion charts that help to illustrate data changing over time.

#### Zoho Sheet

<https://sheet.zoho.com>\*

Work on Zoho\* spreadsheets simultaneously with others. Users have the option of sharing spreadsheets with selected users or publishing them for public view. Zoho also supports importing and exporting with Microsoft Excel\*.

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### Concept Maps

Concept maps represent information in connected segments that identify ideas and relationships. Through concept maps, students generate and organize data to see how ideas and information are connected and can be grouped in different ways.

#### bubbl.us

[www.bubbl.us](http://www.bubbl.us)\*

Create and share colorful mind maps that allow entering of points and subpoints around a core idea. Registration is optional.

### **Cacoo**

<http://cacoo.com>\*

Create concept maps, layouts, diagrams, and flowcharts. Cacoo\* allows users to upload images, and “chat” and edit concurrently with collaborators.

### **Exploratree**

[www.exploratree.org.uk](http://www.exploratree.org.uk)\*

Create personalized concept maps or use preformatted maps to support the desired type of brainstorming. Users can submit concept maps for public viewing and comments. Free registration requires a valid e-mail address.

### **Mindmeister**

[www.mindmeister.com](http://www.mindmeister.com)\*

Create concept maps while collaborating in real time. The basic free version is limited to three maps. All collaborators must have e-mail addresses. Mindmeister\* is also available as an app for mobile devices.

### **Mindomo**

[www.mindomo.com](http://www.mindomo.com)\*

Create brainstorming and causal maps using a variety of shapes, images, and formatting. Users can collaborate in real time, and attach comments and notes to maps. Mindomo\* also lets users embed video and audio files in their mind maps. The free version is limited to three maps.

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## **Flowcharts**

Flowcharts visually illustrate how a process works by breaking it into steps, helping people understand complex projects or processes. Students can also use flowcharts to identify and compare relationships among people, data, processes, and objects.

### **Cacoo**

<http://cacoo.com>\*

Create concept maps, layouts, diagrams, and flowcharts. Cacoo allows users to upload images, and “chat” and edit concurrently with collaborators.

### **Flowchart.Com**

<http://flowchart.com>\*

Create flowcharts using an online multiuser, real-time collaboration service. All collaborating parties can chat and design flowcharts at the same time on any operating system. Flowcharts can be exported as PDFs, graphics, or movies that capture the flowchart creation. In addition, a large clip art gallery provides users with illustrative capabilities. Flowchart.com\* is currently free while it is in BETA.

### **Gliffy**

[www.gliffy.com](http://www.gliffy.com)\*

Create flowcharts, diagrams, floor plans, technical drawings, and more. Gliffy\* offers users a large shape library from which to select elements. Share diagrams with others, save diagrams as images, or embed diagrams in Web pages. The free version allows a user to create up to five charts.

### **Showing Evidence**

<http://educate.intel.com/en/ThinkingTools/ShowingEvidence>

Create a visualization of an argumentation case on the Intel® Education Web site with evidence that supports and weakens a claim. Requires teachers to set up projects and create student accounts.

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### **Cause-and-Effect Maps**

Cause-and-effect maps visually show factors and relationships in cause-and-effect investigations. These maps make thinking visible and help students refine their understanding of data.

### **Seeing Reason**

<http://educate.intel.com/en/thinkingtools/seeingreason>

Create causal maps on the Intel® Education Web site to investigate a system or problem involving cause and effect. Requires teachers to set up projects and create student accounts.

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### **Data Maps**

Data maps are thematic maps that use color gradients on geographical areas to portray measurements based on statistics.

### **BatchGeo**

<http://batchgeo.com>\*

Copy data from a spreadsheet program or table and paste it into BatchGeo\* to create a Google\* data map. The program uses different colored markers to indicate data points for visual analysis and interpretation.

### **ESRI: Mapping for Everyone**

[www.esri.com/mapping-for-everyone/index.html](http://www.esri.com/mapping-for-everyone/index.html)\*

Select from various sets of preloaded data to create gradient data maps. Export as a link or embed in a Web page.

### **iMapBuilder Online**

[www.imapbuilder.net](http://www.imapbuilder.net)\*

Create interactive Flash\* maps with preloaded map templates that can be customized with specific data points. A user can also create a data-driven map from a Microsoft Excel\* file. Other features include the ability to annotate maps with notes and graphics, add mouse rollover effects, and add gradient shading.

### **Many Eyes**

[www-958.ibm.com/software/data/cognos/manyeyes](http://www-958.ibm.com/software/data/cognos/manyeyes)\*

Use existing datasets or upload custom data, and then select how to show the data using world, country, and state maps. Users can use gradients to shade the states, regions, or territories of an individual country based on data values.

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## Animated Statistics

Animated and interactive graphics can display statistical data over time.

### Gapminder

[www.gapminder.org](http://www.gapminder.org)\*

Animate data and statistics to provide a visually appealing and informative display of data.

### Google Public Data Explorer

[www.google.com/publicdata/home](http://www.google.com/publicdata/home)\*

Access datasets from dozens of public organizations. Users can select data, sort data, and generate charts or graphs. Tools allow users to change chart colors and selections. By using the time feature, users can watch how data displayed in a chart changes over time.