The impact of technology on information design in journalism

> CSC2524 - Topics in Interactive Computing: Information Visualisation | Fanny Chevalier November 21, 2016

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Impact of technology

Issues concerning the technologies of reproduction and of readership

Presentation trends

Issues concerning the "page": layout, reading experiences, interactions, etc.

Infoviz for communication

Aimed at **communicating information to specific audiences**, such as experts (e.g., in journals or proceedings) or general audiences (e.g., in news media).



Relations: Aller Furnemmen, printed by J. Carolus in Strasbourg, is recognized as the first newspaper <u>https://en.wikipedia.org/wiki/Newspaper#/media/File:Relation_Aller_Fuernemmen_und_gedenckwuerdigen_Historien_(1609).jpg</u>

1702 *The Daily Courant*

1806 The Times

1842 The Bombay Times



of the American Mission Press. Bombay."

Considered the first infographic. The woodblock map depicts the invasion of Cadiz Bay by Britain Considered the first infographic at *The Times*, London: plan and perspective document the murder of Mr. Blight. Scott Klein (*ProPublica*) described this as the oldest chart he could find in the news (Tapestry conference 2016).

1844 *The New Daily Tribune*

2014 The New York Times





The Vew Hork Eimes The Upshot

The Most Detailed Maps You'll See From the Midterm Elections

By Anmode Cox, Mike Bostock, Denk Welkins, and Sour Cartar Nov. 6, 2014 04:03 PM



New York Times (Gold Award Features, Malofiej #23) <u>http://www.nytimes.com/interactive/2014/11/04/upshot/senate-maps.html? r=0</u>

http://www.tapestryconference.com/blog/2016/scott-kleinforgotten-history-visualization-news

1893 *The New York Times*

1978 / **2016** The New York Times



http://www.tapestryconference.com/blog/2016/scott-kleinforgotten-history-visualization-news http://www.nytimes.com/interactive/2016/02/18/upshot/the-times-classic-weatherchart-now-online-with-3000-cities.html

1982 *The USA Today*



Considered a landmark due to use of infographics as the main visual element in most pages in addition to the widespread use of colour.

1992 The Miami Herald



Pulitzer Prize-Winning Special Section of the *Miami Herald*, Dec.20, 1992. On August 24, 1992, Hurricane Andrew made landfall at <u>Miami as a</u> Category 5 storm.

1898 *The New York Journal & Advertiser*



Considered the first speculative graphic. It depicts how the Maine sank.

1979 *Time* magazine



Holmes explains: 'With the bars sitting up in bed, an immediate visual impression of ... cost is given.' Victorian style hospital beds are used symbolically: 'It would have been ... confusing to draw the kind actually in use' (in his book *Designer's Guide to Creating Charts & Diagrams*, 1984).



ON ASSIGNMENT

In Reykjavik and Rio, New Delhi and Khartoum, Calcutta, Capetown, Sydney and Suva, as you read this—in every troubled news-corner of the globe—are one or more of the 300 special correspondents who work for TIME, LIFE and FORTUNE. In the past twelve months alone, their assignments carried them the 1,505,000 miles you see plotted on this map.

Some of these people are reporters, some photographers, some researchers. Two were on an American cruiser off Hawaii when the Japs blasted Pearl Harbor. Two more were in Manila on December 7, now are interned by the Japanese in ancient Santo Tomas University. Still another managed to make Corregidor from the mainland, filed almost daily dispatches all through January and February, last reported that he had finally reached Australia in safety, joined three other TIME – LIFE – FORTUNE correspondents there. Two of these men had made the trip to Australia in a troop ship with an AEF convoy; the third had arrived on a grimy freighter, he its only passenger, high explosives its only cargo.

But this is not a map of adventure. Rather it is an attempt to visualize a hardworking, world-wide research organization—the News and Picture Bureaus of TIME, LIFE and FORTUNE.

The real significance of the map grows out of the hundreds of fact-finding assignments it represents-the millions of words filed-the stories documented with photos, the weeks and months of observation and analysis it plots.

Eighty thousand of the 1,505,000 miles of travel plotted on the map, for example, were covered by Correspondent Allan Michie. The dispatches he filed from Cairo, Tehran, Simla, Singapore, Batavia and Manila were the hasis of news stories in the columns of TIME. Documented with pictures taken by a Picture Bureau photographer in the Middle East, several of his pieces ran in LIFE. Back in New York, he assembled the threads of his experiences and first-hand knowledge on the broad pattern of world strategy into the story of *The Coming Battle for Asia* that appeared in FORTUNE for March.

This same mechanism functions similarly as Walter Graebner, head of the London office, returns to New York to report on the European situation for TIME and LIFE and write the story of *British Politics and the War* for the April FORTUNE—as Sherry Mangan heads hack from Buenos Aires via Santiago, Lima and Panama — as correspondents file their dispatches from Ireland, Alaska, India and Bataan . . .

These and three hundred other men like them are a part of the world-wide news and picture organization which is constantly serving your editors, with spot news, with background information, with well-documented research.

TIME-LIFE-FORTUNE

Richard Edes Harrison, *Fortune* magazine, 1942 https://www.fulltable.com/vts/f/fortune/reh/mn.htm





Peter Apian: *Cosmographicus*, 1524, meridian volvelle. <u>University of Virginia Library</u>



William Playfair: "Linear Chronology, exhibiting the revenues, expenditure, debt, price of stocks & bread from 1770–1824" (in *Design for Information*, p. 111)





13th-ct.: Pilgrim map by Matthew Paris

Google Maps: Getting directions

Summary 1

Visualizations aimed at communicating information to specific audiences:



How

phenomena happened



What, Where, When, Who, How many phenomena happened

How

What, Where, When, Who, How many

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· Reports from locations where oil has made landfall

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The New York Times, 2010 (Gold Medal, Malofiej #19) http://www.nytimes.com/interactive/2010/04/28/us/20100428-spill-map.html

Train Was Going Twice the Speed Limit

The train derailed at about 9:21 p.m. along a curved stretch of track about eight miles from where the train left 30th Street Station in Philadelphia. An official with the National Transportation Safety Board said the train was traveling at about 106 miles per hour when the engineer applied the brakes, just moments before the derailment. PUBLISHED MAY 13 | RELATED ARTICLE >



By The New York Times; aerial photo by Pictometry International



A Scene of Devastation

To New York

Engine

The New York Times, 2015 (Silver Medal Breaking News, Malofiej #24) http://www.nytimes.com/interactive/2015/05/13/us/investigating-the-philadelphia-amtrak-train-crash.html?_r=0



The Guardian, 2015 (Silver Medal Features, Malofiej #24)

http://www.theguardian.com/society/ng-interactive/2015/feb/05/-sp-watch-how-measles-outbreak-spreads-when-kids-get-vaccinated#maincontent

Battling Infectious Diseases in the 20th Century: The Impact of Vaccines

By Typian Defield and Dev Friedman

Compared for 0.2010 of Balance PT

The number of infocted people, measured over 70-some years and across all 50 states and the Dispirit of Crisumbia, generally dictined after vocpines were introduced.

The field made below show number of cases per 100,000 people.



hole: CDC cells from 2003 2012 period from its Service y of Parl Hall Billie Dresses, which publishes period rather than resetly and scores confirmed cases accounted to provide and









Pertussis (Whooping Cough)



Smallpox



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DJA 2015: Data Viz of the Year The Wall Street Journal, 2015

790 100 258 600

Polio



The Guardian, 2015 (Special Awards: Best Map, Malofiej #24)

https://www.theguardian.com/society/ng-interactive/2015/sep/02/unaffordable-country-where-can-you-afford-to-buy-a-house

This Is How Fast America Changes Its Mind

By Alex Tribou and Keith Collins Updated: June 26, 2015

Eleven years after Massachusetts became the first state to allow same-sex couples to marry, the Supreme Court has now extended that right nationwide. The decision came after a wave of gay marriage legalization: 28 states from 2013 to 2015, with 36 overall prior to the Court's ruling. Such widespread acceptance in a short amount of time isn't a phenomenon unique to gay marriage. Social change in the U.S. appears to follow a pattern: A few pioneer states get out front before the others, and then a key event—often a court decision or a grassroots campaign reaching maturity—triggers a rush of state activity that ultimately leads to a change in federal law.

We looked at six big issues-interracial marriage, prohibition, women's suffrage, abortion, same-sex marriage, and recreational marijuana - to show how this has happened in the past, and may again in the very near future.

Tracking the Pace of Social Change

Number of states that have removed a ban, by year (Prohibition shows the number of states that enacted)



Bloomberg, 2014 (Special Awards: Equality and Woman's Promotion, Malofiej #24) http://www.bloomberg.com/graphics/2015-pace-of-social-change/?utm_campaign=Social

technologies: reproduction

The Museum of Printing, North Andover, MA, and the Letterpress Press

Wooden presses from Gutenberg to Franklin















1901 diagram made entirely of type (given the constraints of reproducing *illustrations at the time*). In: Simon Rogers, The Guardian: History of data journalism at the Guardian video (2013)

http://www.theguardian.com/news/datablog/video/2013/apr/04/history-of-data-journalism-video



W.C. Brinton's second book Graphic Presentation.

410

RAPHIC

PRESENTATION

https://archive.org/details/graphicpresentat00brinrich

technologies: reproduction



1741 Gottfried Hensel: *Europa poly glotta*



2011 Eric Fischer: *Language communities of Twitter*



2013

The New York Times: How Y'all, Youse and You Guys Talk



Gottfried Hensel: Europa poly glotta, 1741 (Princeton Library, Historic Maps Collection)



Gottfried Hensel: Europa poly glotta, 1741 (Princeton Library, Historic Maps Collection)



Eric Fischer (2011): "Language communities of Twitter" (European detail)

How Y'all, Youse and You Guys Talk

What does the way you speak say about where you're from? Answer all the questions below to see your personal dialect map.



About This Quiz

Most of the questions used in this quiz are based on those in the Harvard Dialect Survey, a linguistics project begun in 2002 by Bert Vaux and Scott Golder. The original questions and results for that survey can be found on Dr. Vaux's current website.

The data for the quiz and maps shown here come from over 350,000 survey responses collected from August to October 2013 by Josh Katz, a graphics editor for the New York Times who developed this quiz. The colors on the large heat map correspond to the probability that a randomly selected person in that location would respond to a randomly selected survey question the same way that you did. The three smaller maps show which answer most contributed to those cities being named the most (or least) similar to you.



See the pattern of your dialect in the map below. Three of the most similar cities are shown.



The New York Times, 2013 (Best Map, Malofiej # 22) _____www.nytimes.com/interactive/2013/12/20/sunday-review/dialect-quiz-map.html?_r=0

Summary 2



the RY P PLAN AND STREET, STREET, ST. TO. ST. D.



A Note to Readers: The Background



The New Hork Eimes

The Guantánamo Docket

Documents and research related to the 780 people who have been sent to the Guantánamo Bay prison since 2002. Overview Detainees Transfer Countries Citizenship Timeline About DATA LAST CHANGED JUNE 13, 2018

A History of the Detainee Population



A Selection of Detainees

The men presented below were selected by The Times to provide a cross section of the government. cases against the detainees. Click the @ to read the government's previously secret risk assessment of the prisoner.

Abdul Rahman Mohamed Saleh Naser

but refuses antidepressant, the report says.



Saifullah Paracha

American resident accused of offering to use his business to help Al Qaeda smuggle weapons into the United States.

Detainee Citizenship

Seod Araba	105
Vaman	115
Pakatan	17
Alperta	

Share this view on E Twitter or F Facebook

Related Coverage From the Times -

-Ba

Search the docket

The New York Times & NYTimes.com, 2011 (Best of Show Award in print and online, Malofiej #20)

http://projects.nytimes.com/guantanamo

Hunger striker, history of major depressive disorder

technologies



1984 Macintosh computer

1991 Apple laptop

2007 iPhone

2015

2010 iPad



1609 Aller Furnemmen considered 1st newspaper 1996 The New York Times started on the Web

The impact of technology of reproduction of readership on information design in journalism

different reading experiences



The Guardian, 2015

http://www.theguardian.com/environment/ng-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/26/the-mekong-river-stories-from-the-heart-of-the-climate-crisis-interactive/2015/nov/2015/nov/2015/nov/2015/nov

same graphics: no interaction or animation



Bloomberg, 2015 (Bronze Medal Features; Special Award Climate Change, Malofiej #24) http://www.bloomberg.com/graphics/2015-whats-warming-the-world/

same graphics: but with less details



The New York Times, 2015

http://www.nytimes.com/interactive/2015/05/03/upshot/the-best-and-worst-places-to-grow-up-how-your-area-compares.html? utm_content=buffer928d6&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer&_r=0&abt=0002&abg=0



The New York Times, 2015

http://www.nytimes.com/interactive/2015/05/03/upshot/the-best-and-worst-places-to-grow-up-how-your-area-compares. utm_content=buffer928d6&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer&_r=0&abt=0002&abg=

But New York appeared above average in part because it has a large number of immigrants, who

in New York had above average outcomes in-

mbulthood.

different graphics: included/excluded



The Economist, 2016

http://www.economist.com/news/finance-and-economics/21695912-valuations-globalised-cities-are-rising-much-faster-their
Trends: use of animated graphs and short videos



The Economist, 2016 http://www.economist.com/blogs/graphicdetail

Trends: use of animated graphs and short videos

GIANT SLALOM

No skier in the world carves turns the way Ted Ligety does. The American has practically invented a new way of skiing.

By MIKE BOSTOCK, ALEXANDRA GARCIA, JOE WARD and GEORGE KNOWLES

The New York Times, 2014: Giant Slalom

Trends: use of animated graphs in social media



The Financial Times (UK), 2015 (Silver Medal Social Media, Malofiej #24) http://www.ft.com/cms/s/2/98ce14ee-99a6-11e5-95c7-d47aa298f769.html#axzz45FSgTci3

https://twitter.com/FT/status/674759218545717252

Trends: use of animated graphs in social media



The New York Times, 2014 (Bronze Medal Social Media, Malofiej #24) http://www.nytimes.com/interactive/2014/03/17/world/asia/search-for-flight-370.html?_r=0 https://twitter.com/nytgraphics/status/628992155495858176

All the Medalists: Men's 100-Meter Sprint

One Race, Every Medalist Ever

Usain Bolt's 9.63 set an Olympic record in the 100. So how far ahead of every Olympic medalist is he?

By KEVIN QUEALY and GRAHAM ROBERTS

Sources: "The Complete Book of the Olympics" by David Wallechinsky and Jaime Loucky, International Olympic Committee; Amateur Athletic Assocation; Photographs: Chang W. Lee/The New York Times, Getty Images, International Olympic Committee

1896

1904

1900

1000

TWITTER

GOOGLE+

FACEBOOK

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+

SHARE

EMAIL EMAIL

Trends: customized news (location)



The New York Times, 2015

<u>http://www.nytimes.com/interactive/2015/05/03/upshot/the-best-and-worst-places-to-grow-up-how-your-area-compares.html?</u> <u>utm_content=buffer928d6&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer&_r=0&abt=0002&abg=0</u>



Manhattan is very bad for income mobility for children in poor families. It is better than only about 7 percent of counties.



Across the country, the researchers found five factors associated with strong upward mobility: less segregation by income and race, lower levels of income inequality, better schools, lower rates of violent crime, and a larger share of two-parent households. In general, the effects of place are sharper for boys than for girls, and for lower-income children than for rich.

"The brouder lesson of our analysis," Mr. Chetty and Mr. Hendren write, "is that social mobility should be tackled at a local level." Here's where Manhattan stands among its neighbors.

	How Manhattan ranks allong places in the New York area								
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The New York Times, 2015

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http://www.nytimes.com/interactive/2015/05/03/upshot/the-best-and-worst-places-to-grow-up-how-your-area-compares.html? utm content=buffer928d6&utm medium=social&utm source=twitter.com&utm campaign=buffer& r=0&abt=0002&abg=0



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Across the country, the researchers found five factors associated with strong upward mobility: less segregation by income and race, lower levels of income inequality, better schools, lower rates of violent crime, and a larger share of two-parent households. In general, the effects of place are sharper for boys than for girls, and for lower-income children than for rich.

"The broader lesson of our analysis," Mr. Chetty and Mr. Hendren write, "is that social mobility should be tackled at a local level." Here's where Putnam County stands among its neighbors.

How Putnam County ranks among places in the New York area									
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Trends: customized news with reader's input



The New York Times, 2015 (Gold Medal Criteria, Malofiej #24)

http://www.nytimes.com/interactive/2015/05/28/upshot/you-draw-it-how-family-income-affects-childrens-college-chances.html



The New York Times, 2015 (Gold Medal Criteria, Malofiej #24)

http://www.nytimes.com/interactive/2015/05/28/upshot/you-draw-it-how-family-income-affects-childrens-college-chances.html

Trends: graphics in VR



The Los Angeles Times, 2015 http://graphics.latimes.com/mars-gale-crater-vr/

Trends: "conversation with the news"







Summary 3



different graphics less detailed & included/excluded graphics



customized graphics & news reader's location (IP) & reader's input

Mekong: a river rising The fate of 70 million people rests o

The fate of 70 million people rests on what happens to the Melsong river. Ahead of the Paris climate change summi, John Vidal finds countries calling for clean energy bat creating ecological and human havoc





<text><text><text><text>

different reading experiences device specific design

new technologies: VR graphics

social media graphics + apps based on the reader's location (IP)

Thank you!

Isabel Meirelles

imeirelles@faculty.ocadu.ca



