Visual Data and Data Visualization for Digital Humanities

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Member, National Academy of Engineering
Interdisciplinary research community
- Computer Science & Info Studies
- Psych, Socio, Educ, Jour & MITH

hcil.umd.edu
vimeo.com/72440805
Designing the User Interface

Design Theories

Direct manipulation
Menus, speech, search
Social Media
Information Visualization

www.cs.umd.edu/hcil/DTUI6

Sixth Edition: 2016
The University of Maryland, College Park (often referred to as the University of Maryland, Maryland, UM, UMD, UMCP, or College Park) is a public research university located in the city of College Park in Prince George's County, Maryland, approximately 4 miles (6.4 km) from the northeast border of Washington, D.C. Founded in 1856, the university is the flagship institution of the University System of Maryland. With a fall 2010 enrollment of more than 37,000 students, over 100 undergraduate majors, and 120 graduate programs,
Information Visualization & Visual Analytics

Readings in Information Visualization Using Vision to Think

Written and Edited by Stuart Card, Jock Mackinlay, Ben Shneiderman

1999
Information Visualization & Visual Analytics
Information Visualization & Visual Analytics

Visual bandwidth is enormous

- Human perceptual skills are remarkable

- Trend, cluster, gap, outlier...

- Color, size, shape, proximity...

Three challenges

- Meaningful visual displays of massive data
- Interaction: widgets & window coordination
- Process models for discovery

1999 2004          2010
Information Visualization: Cultural Meme
Information Visualization: Textbook

Tamara Munzner
Visualization Analysis and Design
CRC Press, 2014
ISBN 1466508914
http://www.cs.ubc.ca/~tmm/vadbook/
Minard's Visualization Of Napoleon's 1812 March

https://thoughtbot.com/blog/analyzing-minards-visualization-of-napoleons-1812-march
John Snow’s London Cholera May 1854
Information Visualization: Mantra

- Overview, zoom & filter, details-on-demand
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- Overview, zoom & filter, details-on-demand
- The Eyes Have It, IEEE VL, 1996

(The Eyes Have It, IEEE VL, 1996)
Information Visualization: Data Types

- 1-D Linear: Document scrolling/panning
- 2-D Map: Maps & Medical imagery
- 3-D World: CAD, Medical, Molecules, Architecture
Information Visualization: Data Types

- **1-D Linear**  
  Document scrolling/panning

- **2-D Map**  
  Maps & Medical imagery

- **3-D World**  
  CAD, Medical, Molecules, Architecture

- **Multi-Var**  
  Spotfire, Tableau, Qliktech, Visual Insight

- **Temporal**  
  EventFlow, TimeSearcher, Palantir, DataMontage

- **Tree**  
  Node-link, Nested-Indented, Treemap

- **Network**  
  Pajek, UCINet, NodeXL, Gephi, Tom Sawyer

- **Text**  
  TagClouds, Wordle, Google Ngram Viewer

- **Visual**  
  LightBox, PhotoShop, Flickr, Google Photos
Information Visualization: Data Types

- **1-D Linear** Document scrolling/panning
- **2-D Map** Maps & Medical imagery
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- **Visual** LightBox, PhotoShop, Flickr, Google Photos

flowingdata.com  eagereyes.org  visualisingdata.com
informationisbeautiful.net  perceptualedge.com
https://mdl.library.utoronto.ca/dataviz/getting-started
Data Visualization As an Act of Witnessing

The Undocumented Migration Project pop-up installation “Hostile Terrain” visualizes the humanitarian crisis on the U.S.’s southern border.

The Mental Mindgames of Measuring Milk

A quick data experiment to test whether the volume measurements on different bottles vary or the bottles are just filled to different levels.
Visualization amplifies cognitive & perceptual abilities → engaging viewers, provoking bolder questions, enabling deeper insights.

Visualization has the power to unleash imaginative and conceptual potential.

The purpose of visualization is insight, not pictures.
Visualization opens up new scholarly methods for humanities

Omeka – George Mason Univ: https://omeka.org/
Georgia Tech: http://humanitiesvis.lmc.gatech.edu/response.html
New York Univ: https://guides.nyu.edu/dighum/viz
Univ of Southern California: https://libguides.usc.edu/c.php?g=235247&p=1560835

4th Workshop (2019)
Visualization for the Digital Humanities http://vis4dh.dbvis.de/

https://www.hup.harvard.edu/catalog.php?isbn=9780674724938

NodeXL Social Network Visualization Tool & Book
NodeXLgraphgallery.org
Socrates: Relationships (women in red) (Diane Cline)

http://www.chs-fellows.org/2019/02/21/social-network-of-socrates/
Pericles: Relationships *(women in red)* *(Diane Cline)*
Philip II & and His Generals
Alexander the Great: Social Network Analysis
Alexander the Great: Network & Two Conspiracies
Alexander the Great: Relationships to Ethnic Groups
Discovering Interesting Usage Patterns in Text Collections: Integrating Text Mining with Visualization
Anthony Don, Elena Zheleva, Machon Gregory, Sureyya Tarkan, Loretta Auvil, Tanya Clement, Ben Shneiderman and Catherine Plaisant

http://www.cs.umd.edu/hcil/textvis/featurelens/
BasketLens: Multiple word search across documents

Explores Erotics in Emily Dickinson's Correspondence with Text Mining and Visual Interfaces

http://www.cs.umd.edu/hcil/textvis/basketlens/
U.S. Library of Congress

- Scholars, Journalists, Citizens
- Teachers, Students
American Memory is the Library of Congress offering of primary-source and archival collections relating to American culture and history. These collections are the Library of Congress’s key contribution to the national digital library. Most of these collections have been drawn from the holdings of the Library’s special collections divisions. Each collection is accompanied by introductory material, user’s guides, and bibliographies for further research. Only a small portion of the huge collections of the Library of Congress is digitized. The Digital Collections mainly include historical and uncopyrighted or out-of-copyright materials. It is a constantly growing collection that contains both primary materials and secondary materials (e.g., indexes, finding aids).

The available services are listed on the left side of the screen. We recommend that you browse and select collections of interest. The Information Desk provides special tours and answers frequently asked questions. A particular effort has been made to provide information for educators and life-long learners (the “learning pages”) to help use the collections.

Sample Special Presentations

- The Progress of a People: Special Presentation from the African-American Pamphlets from the Daniel A. P. Murray Collection, 1880-1920
- Become a Historical Detective
Library of Congress: American Memory
The Coolidge-Conservatism collection assembles a wide array of primary-source materials from the 1930s, some 17,000 pages reflecting the presidency of the Coolidge years, the nation's transition to a more-constant economy, and the role of government in this transition. The selective thematic focus and range of formats in this collection represents an effort to assemble topical bodies of material, as opposed to reproducing preestablished, collection entities.
International Center of Photography: David Seymour

CHIM: The Photographs of David Seymour

On the occasion of the fortieth anniversary of Chim’s untimely death, those who treasure his work have joined forces to produce an ambitious book, exhibit, and website.

To explore Chim’s life and work, click on one of the years in the timeline at the top of the screen.

Visit the exhibition at the
International Center of Photography/Midtown
1133 Avenue of the Americas (at 43rd St.), New York City
September 13 - November 20, 1996
Exhibition Hours: Tuesday 11am - 8pm, Wednesday - Sunday 11am - 6pm

http://chim.icp.org/index.html
Chim was born David Seymour on November 20, 1911, in Warsaw, Poland, then a province of Czarist Russia. On becoming a photo-reporter in Paris in 1933, he signed his work "CHIM," a French phonetic abbreviation of his surname, distinctive in its use of capital letters and elegant in its brevity. Life began for David and his sister, Edna, three years his senior, as the children of Regina and Benjamin Seymour, a respected publisher of Yiddish and Hebrew books. They enjoyed an excellent education in Jewish and secular subjects, with David attending the Jewish Gymnasium Acharon.

Upon passing his baccalaureate David also went off to Germany, to Leipzig, to the Academy of Arts, where he continued his education in photography. In 1936 he went to London and worked for the London Daily Herald, before returning to Paris in 1937.}

www.icp.org/chim
UNICEF: Children of War

By 1948 fate dealt Chim a card that had "ace" written all over it. UNICEF (United Nations International Children's Emergency Fund), only recently formed, asked him to take photographs for a book depicting Europe's children in need. It was not a lucrative proposition, but a labor of love, for instead of paying the usual magazine rate of at least one hundred dollars a day, all UNICEF could muster was twenty-six dollars. The project would take twelve weeks, and Chim was to travel to Poland, Hungary, Austria, Italy, and Greece. The purpose was to show the work being done by UNICEF, providing some of Europe's thirteen million children with the barest minimum of necessities: powdered milk, a bowl of soup each day, a pair of shoes, and vaccination.

Teresa, a child in a residence for disturbed children, grew up in a concentration camp. She drew a picture of home on the blackboard. Poland, 1948. ©1996 from the Estate of David Seymour

Photograph by Elliott Erwitt. ©1948 Elliott Erwitt.
Portraits of Personalities

In those years, Magnum photographers helped each other, not only with their work, but sometimes also emotionally. Just before Magnum was founded, Robert Capa had ended a love affair with Ingrid Bergman. She was then still married to her first husband, the Swedish surgeon Peter Lindstrom, and she was an idol of public and press. Bob felt marrying would not be compatible with his work as a photographer, but they remained friends. In 1950 Ingrid gave birth to her first child with Roberto Rossellini. The world press hounded her for pictures, at the same time reviling her for having left her first husband and daughter. Chinn was the only one Ingrid allowed to photograph her. Ingrid became, as Chinn used to say, his "favorite subject." Two years later, Chinn went down once again to Santa Marta La, and took the now classic photographs of Ingrid and the twins. Ingrid soon wrote to him.
The plight of the Jews was never far from Chim's consciousness, even, as Cartier-Bresson described it, "with a certain sense of despair at his own situation." However sophisticated and caring he was, however much he enjoyed life, he was conditioned by the circumstances of his background and by the fate of his parents in a world where anti-Semitism was rife. The safe haven of Palestine, later Israel, for those who had survived the Holocaust, was therefore never far from his thoughts. In November 1947, the young United Nations passed a resolution to partition Palestine into two new states, the State of Israel and the State of Palestine. The latter was never formed because the leaders of Egypt, Transjordan, Syria, Iraq, and Lebanon rejected the partition, and immediately upon the formation of the State of Israel.
David Seymour – CHIM

https://davidseymour.com/
www.davidseymour.com/archive/
CHIM Archive: Index as Overview

Letters to/from Friends

Letters from Chim, Paris, to Emma [last name unknown] in Warsaw [in Polish], and from Emma to Chim [in Polish, when he was studying in France] 1931-33

Notes made by CHIM’s sister of correspondence with his girlfriend Emma in Warsaw when he was studying in France [translated from Polish] 1931-32

- Letter from Chim to Emma, Paris [on cote Brosserie Robin letterhead, in Polish; Hala Shneiderman’s handwritten note on the back says Emma, 1931-32]
- Letter from Emma to CHIM [in Polish], 1932
- Letter from Emma to CHIM [in Polish], May 1932
- Letter from Emma to CHIM [in Polish], May 1932

Hala Shneiderman’s typed quotes from CHIM’s letters to Emma, 1933

- Letter from Emma to CHIM [in Polish], undated [c. 1933]
- Letter from CHIM to Emma [in Polish], undated [c. 1933]
- Letter from CHIM to Emma [in Polish], undated [c. 1933]
- Letter from Emma to CHIM [in Polish], undated [c. 1933]
- Letter from CHIM, Paris, to Emma [in Polish], undated [c. 1933]
- Letter from Emma to CHIM [in Polish], undated [c. 1933]

Letter from Emma [?] to CHIM with heading “cercle des étrangers de Monaco”, [in Polish]

- Letter from Denise to CHIM [in French], July 1945
- Letter from Denise to CHIM [in French], Aug. 1945
- Letter from Ted Allen, Canadian playwright, London, to Chim [asking Chim to find him a place to stay with his family]
CHIM Archive: Ingrid Bergman

Letter from Ingrid Bergman, Rome, to CHIM. ["You are a marvelous photographer and I am a marvelous baby maker"].
Oct. 1952

Roma, Oct. 11-52

Dear Chim;

you are a marvelous photographer and I am a marvelous baby maker! Of course I have IO3 requests among friends for these photos! Can you make me some copies of the good ones, or do I have your permission to make copies here? I am so afraid that you have given the negatives to England as you did to LOOK. However these are the numbers I would like to have more of: 80, 83, 84, and 78. But here is...

Again thanks and best wishes to you from Roberto and

Ingrid
S. L. and Eileen Shneiderman Collection of Yiddish Books

A Project of the University of Maryland Libraries and The Meyerhoff Center for Jewish Studies

In 1996, the celebrated Yiddishist, journalist, poet, essayist - S. L. Shneiderman, passed away, leaving behind a Collection of 395 Yiddish books, nearly half of which bearing the autographs of prominent Yiddish writers from Russia and France, Israel, Canada and the United States. His wife, collaborator, and inspiration, Eileen Shneiderman, graciously donated this collection to the University of Maryland's McKeldin Library in November of 1996. It is the site's goal to make these books known and available to those interested in Yiddish literature and culture on any level: scholarly research, education purposes, or pleasurable reading. However, the very richness of the books could easily overshadow the words and accomplishments of their donors. And so, the site also stands in memory of Samuel L. Shneiderman and in honor of Eileen Shneiderman. It highlights the contributions they have made through their books and articles in Yiddish and English.

The Donors

In my recollection, my parents always worked as a team. I often heard my father declaring in Yiddish, while my mother wrote her mystical thoughts and reflections. She would read sentences while suggesting improvements and he would revise repeatedly, searching for the appropriate phrasing and asking her for names, dates, etc. Then she would repeatedly re-type the test for several passes of cutting and pasting with strips of white and yellow paper covered with handwritten revisions. The final revisions

The Collection

Here at McKeldin Library, these Yiddish books proudly take their place alongside other Jewish literature in Hebrew and all the major languages of western civilization. The books in this collection, range from fiction to journalism, from poetry to memoirs, from emotions of the shtetl (small town) to analyses of contemporary Israeli foreign policy. There are autographed volumes from famous poets like A. S. Zuckerman, and Yiddish historians and collectors, a volume by Yiddish luminary Itzhak Tawil. To booklist the...
The Donors

S. L. and Eileen Shneiderman

Born in Rzeszów, Poland, S. L. Shneiderman began his Me in the seer of Eastern Europe (Historical Yiddish). His literary career began in the 1920s with his early poetry and film criticism. His journalistic output in Yiddish and Polish, his articles in English magazines, and his books continued to be published until shortly before his death in 1996. In addition to his published work, he also wrote and helped produce the film The Last Chapter, a documentary that depicts "The Thousand Year Saga of Polish Jewry" in 1966. In 1985, he was honored by family and friends by the publishing of a lithograph, Emory For My Stain, that includes his 1938 poem of the same name. In her letter to the reader, Eileen Shneiderman recalls the relationships she and her husband shared with many of the authors in the collection and offers her personal descriptions of several books.

S. L. Shneiderman's key book publications in English include:

- The River Remembers
- Between Fear and Hope
- The Warsaw Heresy
- Warsaw Chronicles
- The Free Renescence

www.lib.umd.edu/sltes
A Description of the Collection and the Shneidermans’ Relationships with the Authors

by Eileen Shneideman

August 6, 1998

I want to express my satisfaction at the good care given to my book collection by the Library of the University of Maryland and for sending me the first-pages of the Yiddish books with dedications of the authors.

In a way, the browsing through the mass of the scores of books is a journey through years of my life. I knew many of the authors who offered the books to my late husband, Samuel L. Shneideman, and many of them were our good friends. That is why I will write about them rather in a personal vein and stress those who played an important role in the Yiddish literature of the 20th century. Most of them did not survive the Holocaust, but their books did survive.

I will start with the writers who grew up with Shneideman in his hometown Kamenszyn, Belorussia and the neighboring shetlach and towns around Lublin.

The first who comes to mind is Shalom Zeitlin who in the early 20’s became known for his masterly Yiddish translation of the book The Peasants by the Polish writer W. Reymont, the Nobel Prize laureate in 1924. Zeitlin was later a secretary of Sholem Asch and an author of popular novels about Biblical heroes in Jewish history. He was appreciated for his style and for enriching the Yiddish language.

The other close friend of Shneideman was the poet I. Pavenskaya who emigrated to Palestine and was—in Shneideman’s words—“a soldier and a singer of Eretz Israel” but also a fighter for the rights of Yiddish after the establishment of the State of Israel when the official policy was the introduction of Hebrew and the elimination of Yiddish as a language of the diaspora or “galch”. Pavenskaya published 18 poetry books. Many of his poems became popular almost as folk songs with his own music. He died in Israel at the age of 92. I am tempted to quote one of his poems as the original [English translation provided] [view translation and image of Yiddish text]
The Collection

About the Collection
The 395 books of the collection are located in McKeldin Library, University of Maryland College Park. The books bear publication dates from several different centuries—19th, 20th, and early 21st—and are published from across the world—Los Angeles to Jerusalem, Mexico City to Johannesburg, Buenos Aires to Warsaw, Montreal to Copenhagen, Washington D.C. to Paris, and most published in New York and Tel-Aviv. The Mofef Center for Jewish Studies issued a press release upon the books’ acceptance that includes the story surrounding the acquisition of the books and a bit about Yiddish literature in general as we move into the 21st century. To the left is an image of the bookbinding that appears on all the books of the collection. The scene is Kamieniec, Poland, S.L. Shneiderman’s birthplace.

List of the Books

Featured Books
Books have been selected for their historical relevance, author, rareness, or general interest. View their covers, inscriptions, illustrations, as well as brief concepts. Also provided are resources for scholarly study, such as background information on the books and their authors, and unusual facets and lesser known perspectives surrounding the works.
Take Away Messages

- Digital humanities designers can learn a lot from information visualization researchers
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• The Best is Yet to Come!