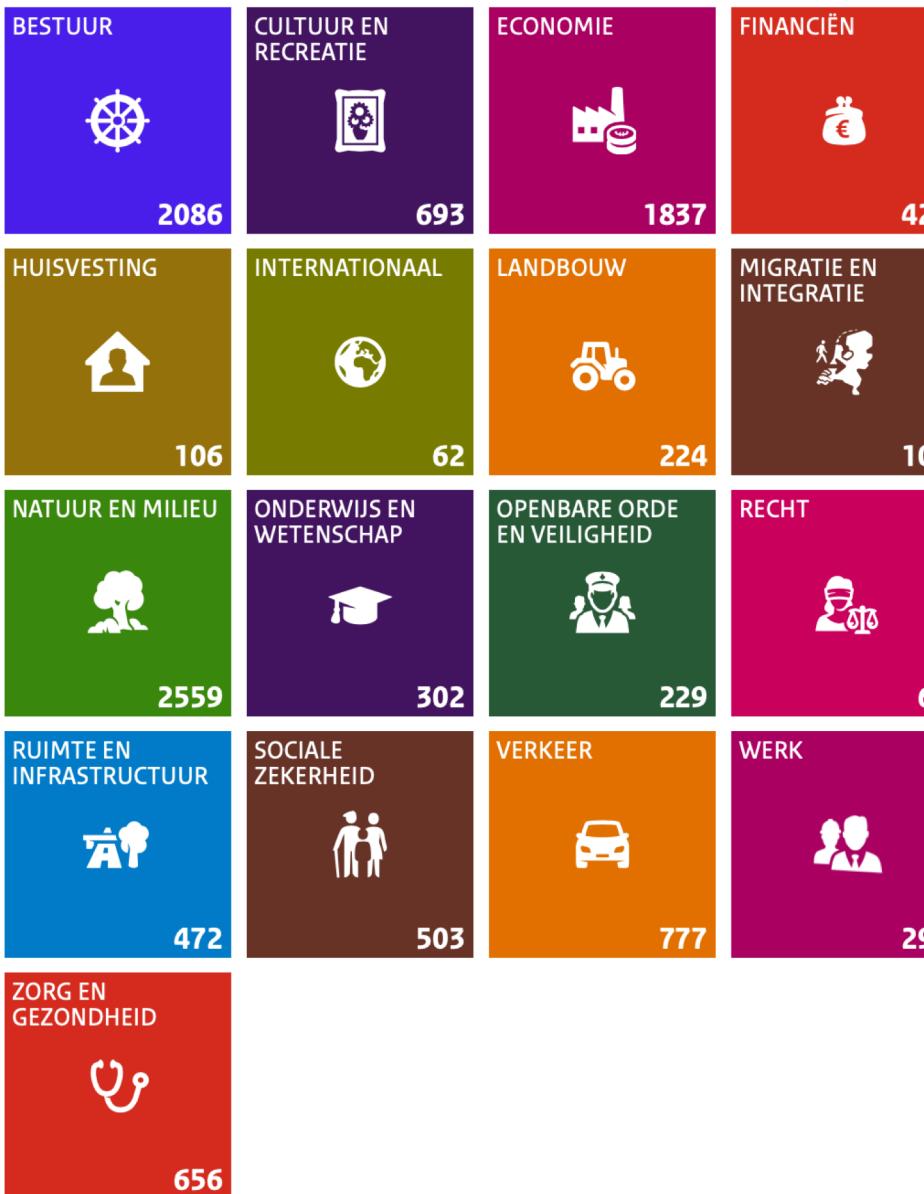
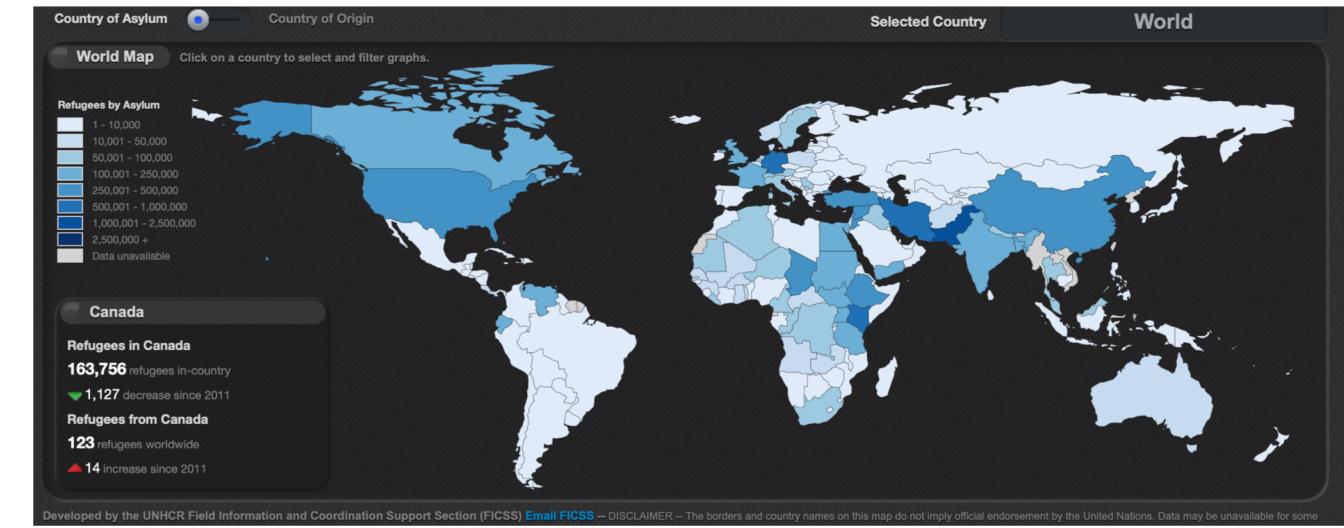


Blader in datasets op thema (thema's nog niet compleet)



<https://data.overheid.nl>



Refugee Data Flows
http://data.unhcr.org/wiki/index.php/API_Documentation.html

Of bijvoorbeeld...

Centraal Bureau voor de Statistiek
KNMI DataCentrum
Happy Planet Index
The Organisation for Economic Co-operation and Development
Kaggle
World Drug Report

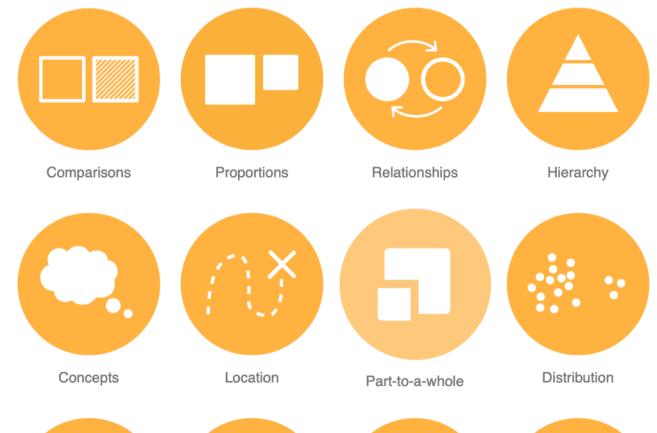
Determine Tasks of a visualisation

“Do you want to compare, to see change or flow, to reveal relationships or connections, to envision temporal or spatial patterns and trends?”

Excerpt From: Alberto Cairo. “The Truthful Art: Data, Charts, and Maps for Communication”.

What do you want to show?

Here you can find a list of charts categorised by their data visualization functions or by what you want a chart to communicate to an audience. While the allocation of each chart into specific functions isn't a perfect system, it still works as a useful guide for selecting chart based on your analysis or communication needs.



Functions in: <https://datavizcatalogue.com/search.html>

Principles of Graphical Integrity ([Edward Tufte 1986](#))

1. The representation of numbers, as physically measured on the surface of the graph itself, should be directly proportional to the numerical quantities represented.
2. Clear, detailed and thorough labeling should be used to defeat graphical distortion and ambiguity. Write out explanations of the data on the graph itself. Label important events in the data.
3. Show data variation, not design variation
4. In time-series displays of money, deflated and standardized units of monetary measurement are nearly always better than nominal units.
5. The number of information carrying (variable) dimensions depicted should not exceed the number of dimensions in the data. Graphics must not quote data out of context.
6. Graphics must not quote data out of context

Designing infographics

Visual Information-Seeking Mantra ([Shneidermans](#) 1996):
“Overview first, zoom and filter, then details on demand.”

Techniques for navigating and browsing information graphics

- Scroll and pan.
- Zoom.
- Open and close.
- Sort and rearrange.
- Search and filter.”

Styles of interaction (Preece, Rogers, Sharp, 2015)

- **Instruction** : the user tells the infographic to do something by means of pressing buttons, typing commands, or double-clicking the mouse.
- **Conversing** : user talks or types in natural language
- **Manipulation and navigation**: we allow manipulation when we let readers change the structure and appearance of what is presented to them so they can achieve certain goals
- **Exploration and browsing**: see and discover new information

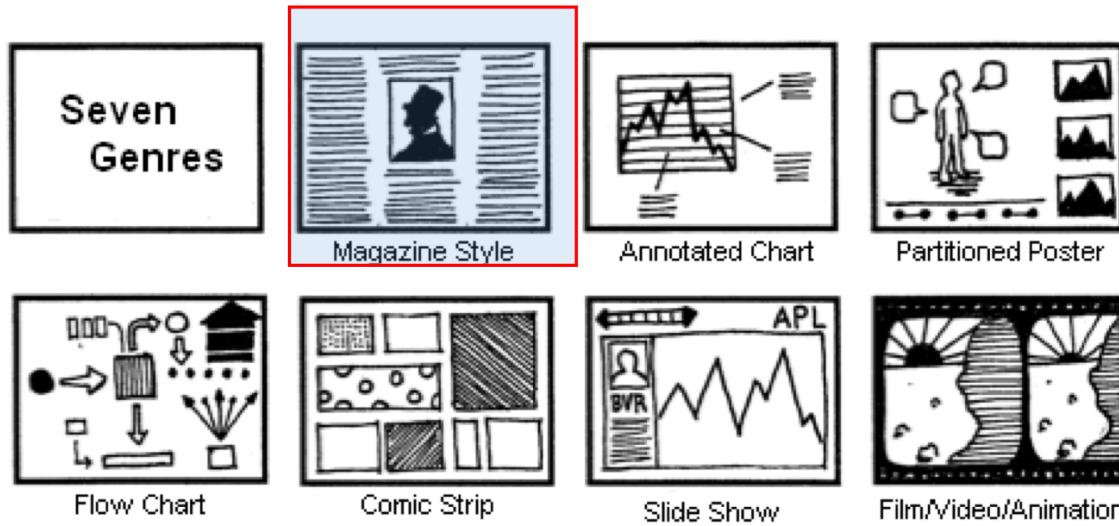
Narrative storytelling

E. Segel and J. Heer, "Narrative Visualization: Telling Stories with Data,"
in IEEE Transactions on Visualization and Computer Graphics, vol. 16,
no. 6, pp. 1139-1148, Nov.-Dec. 2010, doi: 10.1109/TVCG.2010.179

Design Space Dimensions

- Genre (next slide)
- Visual Narrative Tactics
 - Visual structuring
 - Highlighting
 - Transition Guidance
- Narrative Structure (non-visual mechanisms to assist narrative)
 - Ordering
 - Interactivity
 - Messaging

Different genres



Single frames with data visualization embedded in the text

THE GATEPOST

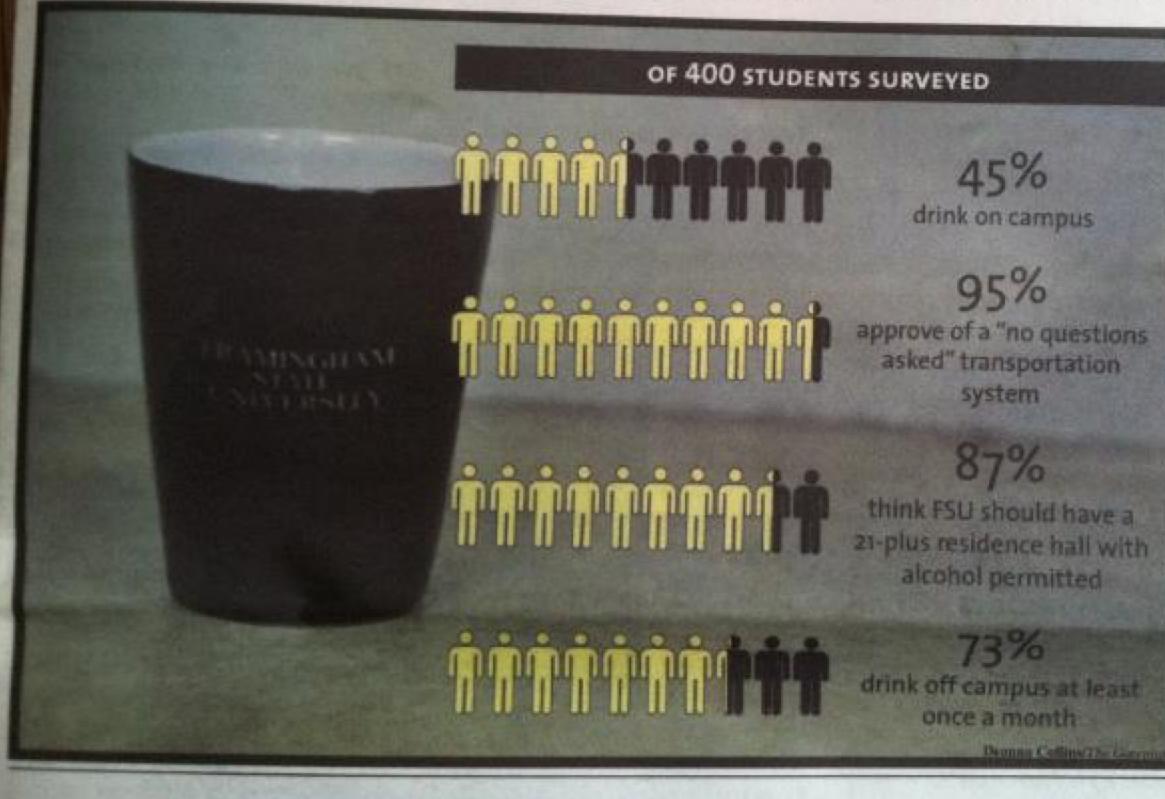
Framingham State University's independent student newspaper since 1932

VOLUME 81 • NUMBER 17

FEBRUARY 22, 2013

GATEPOST@FRAMINGHAM.EDU

One in four students have driven drunk



By Michael B. Murphy

ASSISTANT NEWS EDITOR

By Alex Shuman

EDITORIAL STAFF

By Cristina Valente

STAFF WRITER

An unscientific survey of 400 FSU students, conducted by The Gatepost from Nov. 15 through Nov. 20, found that over one-fourth of students have driven drunk at least once.

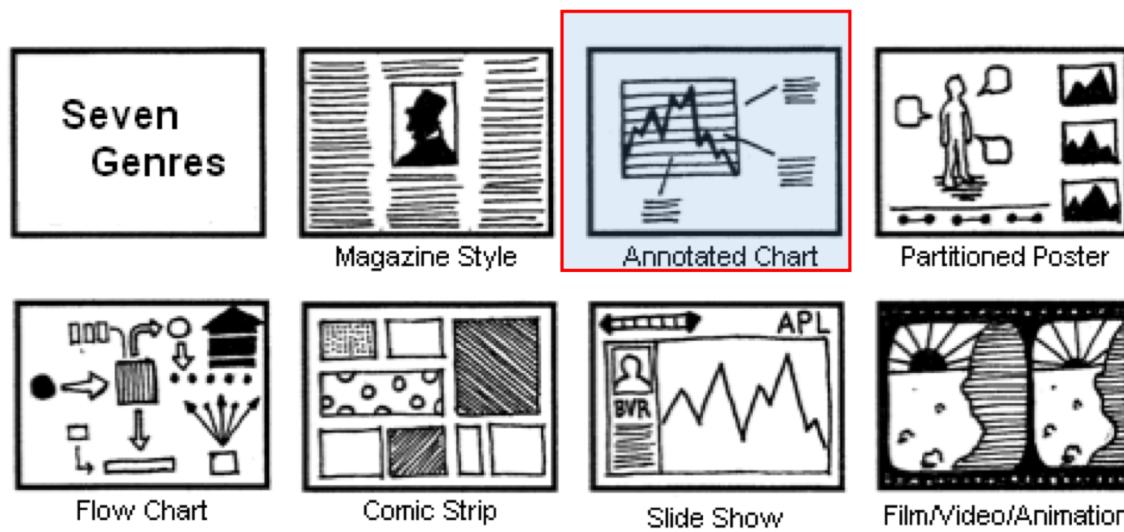
A majority want a "no questions asked" transportation system on campus.

When asked how often students had operated a motor vehicle under the influence of alcohol, 111 of the 400 students surveyed answered at least once and 289 answered never.

Dean of Students Melinda Stoops was alarmed upon hearing that students do not always use a designated driver.

"If [students] are going off campus and they know they are going to be drinking, I would encourage them to discuss it beforehand instead of at the end being stuck and saying, 'Oh, who's okay to drive?'"

Different genres



Visualizations with highlighting of the most important elements

Published: February 2, 2010

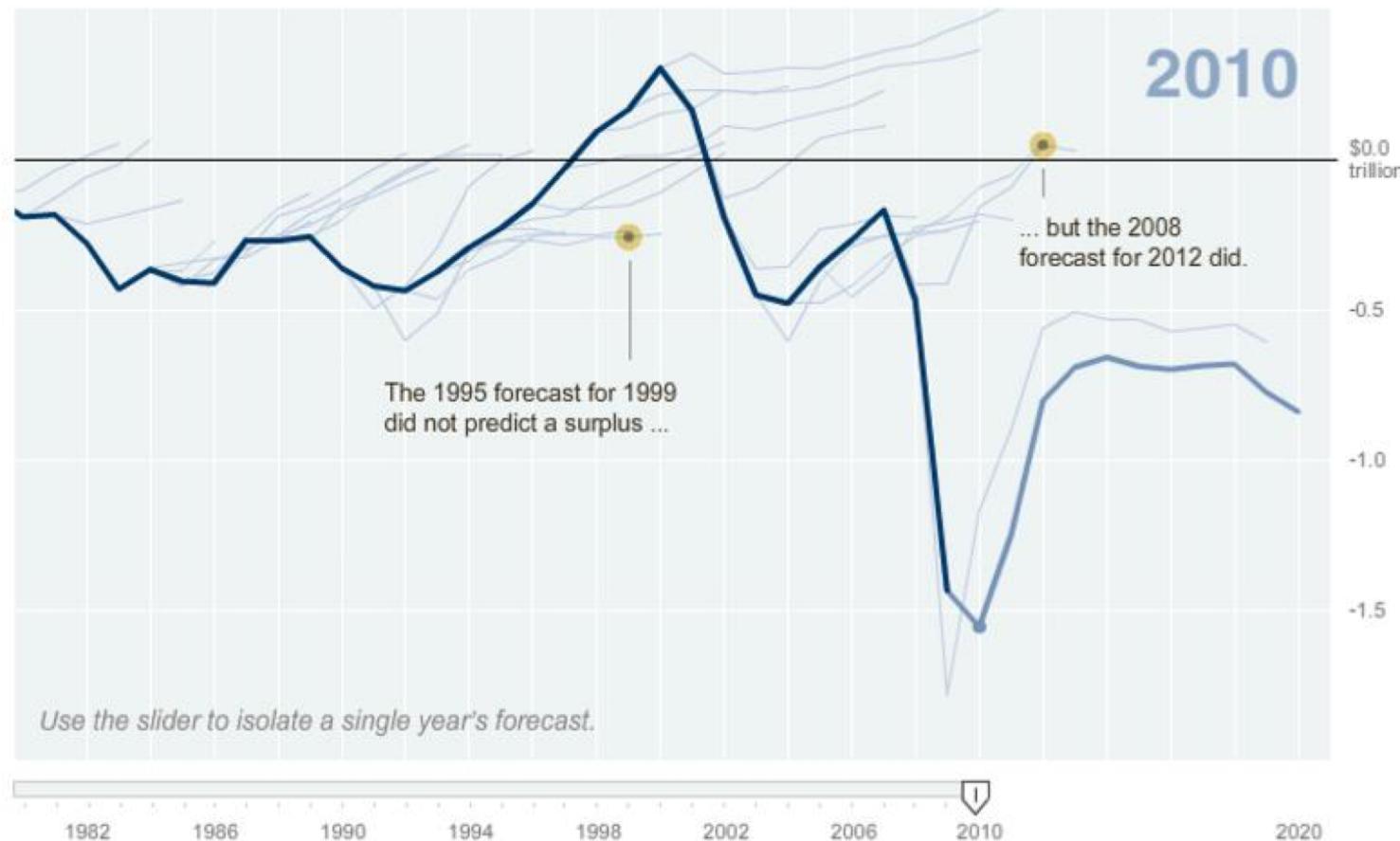
Budget Forecasts, Compared With Reality

Just two years ago, surpluses were predicted by 2012. How accurate have past White House budget forecasts been?

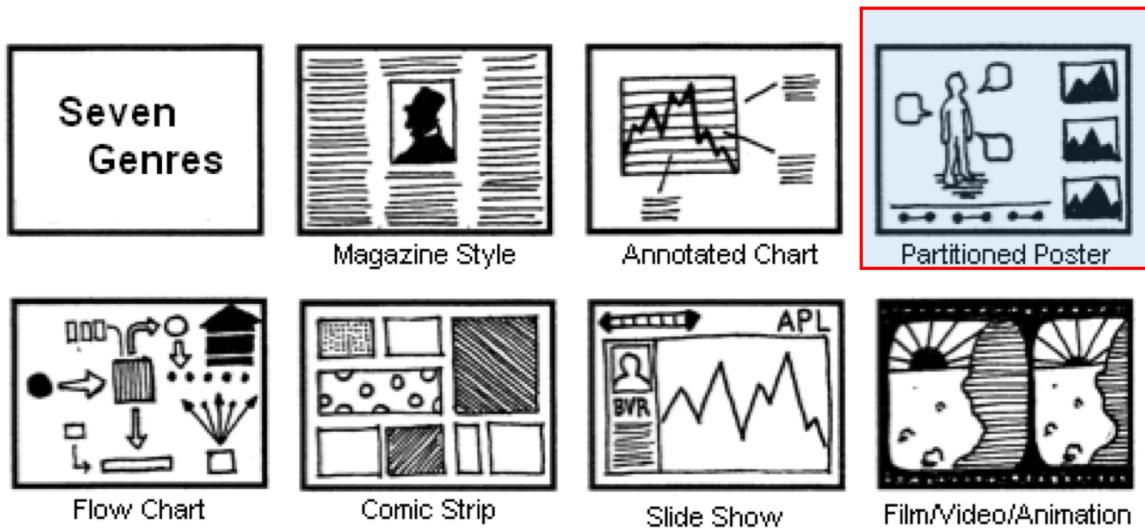
1 | 2 | 3 | 4 | **5** | 6 | NEXT ►

Latest forecast

Today, with a better understanding of the severity of the economic downturn, the deficit situation is much more dire.



Different genres



Elements and visualizations loosely structured over the poster

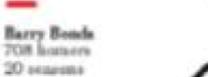
755



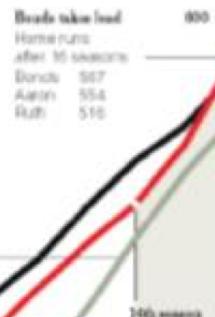
Steroids or Not, the Pursuit Is On

Berry Bonds is taking aim at the career home run record. He needs only six more to tie Babe Ruth and 47 to equal Hank Aaron.

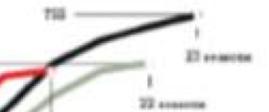
Lines are cumulative home runs:



Bonds takes lead
Home runs after 16 seasons:
Bonds: 517
Aaron: 554
Ruth: 510



According to allegations in a book about Bonds, he began taking steroids before the 1999 season, his 14th in the league. Two seasons later, he hit 72 home runs, surpassing Aaron's career pace.



Bonds was injured last season. He played 14 games and hit 6 homers.

Homer Pace After Age 34

If the accusations are correct, Bonds was 3rd in his first season on steroids. Here are projected home run paces for each player after age 34.

PROJECTED PACE BASED ON AVERAGE OF PREVIOUS FIVE SEASONS

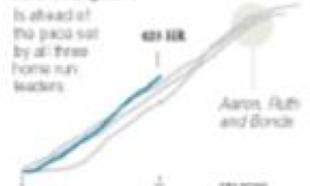


Note: Ages as of July 1 of each season.

Others Taking Aim



Alex Rodriguez



Albert Pujols

Averaging 40 home runs a season, he has started stronger than the three leaders did.



Ken Griffey Jr.

Many thought he would be the first to catch Ruth and Aaron until injuries limited his output.



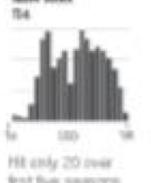
Differing Paths to the Top of the Charts

The top seven players on the career home run list, along with a look at Griffey (12th), Rodriguez (37th) and Pujols (tied 257th).

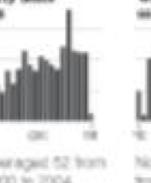
Hank Aaron



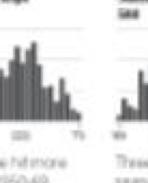
Babe Ruth



Barry Bonds



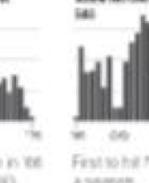
Willie Mays



Stanley Snell



Frank Robinson



Mark McGwire



Ken Griffey Jr.



Alex Rodriguez

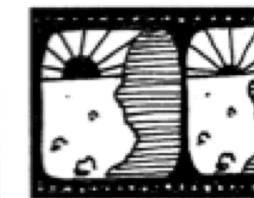
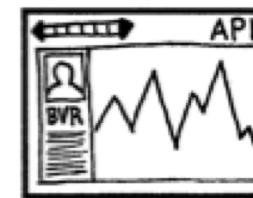
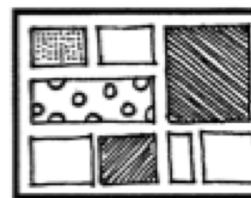
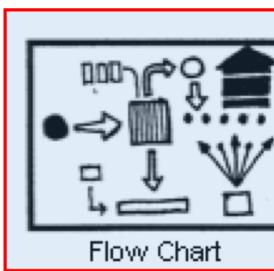
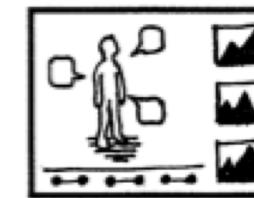
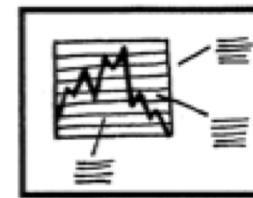
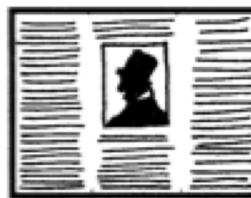
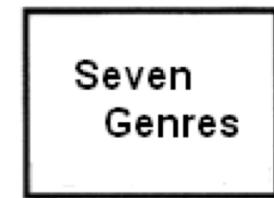


Albert Pujols



AMERICAN-STATESMAN AND THE WASHINGTON TIMES

Different genres



Explicit ordering of the elements in space