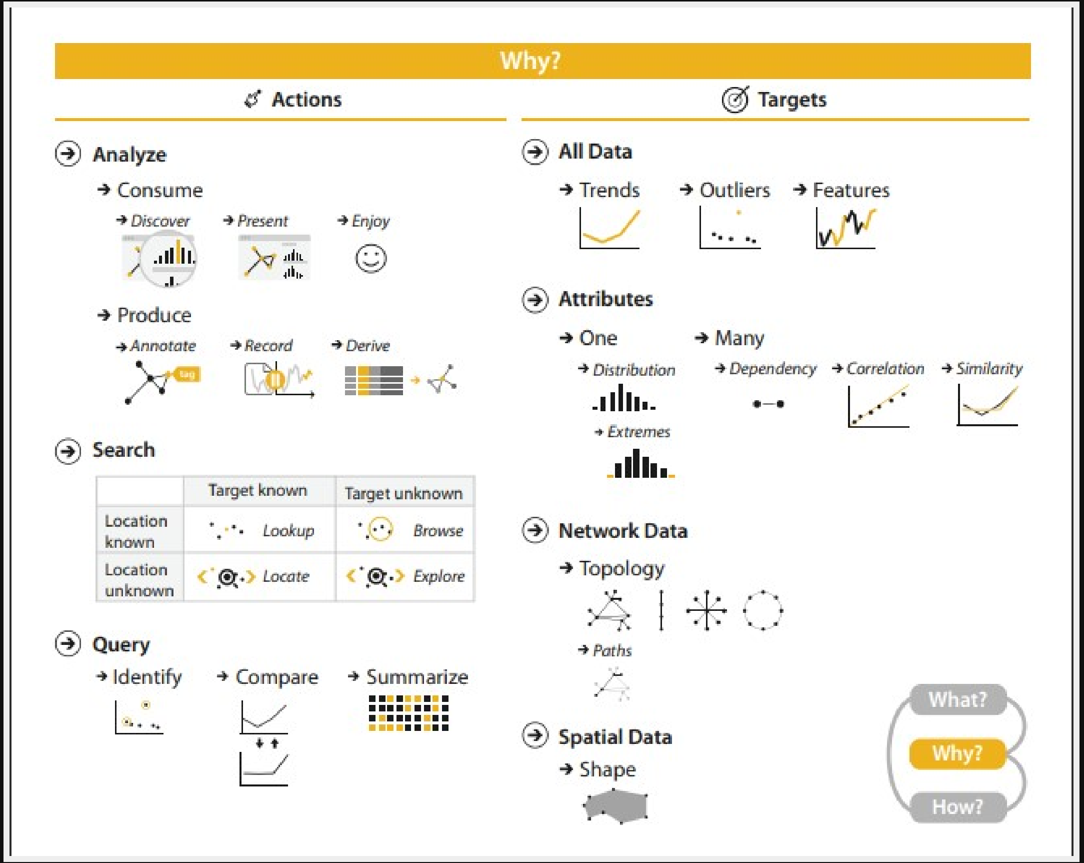
3a: Task abstraction

Why do data viz?

Why: An overview



Visualization Analysis and Design, chapter 3, Munzner

Why task abstraction?

Thinking about *why* in an abstract form, rather than the domain specific way users often talk about data viz.

This will allow us a framework to discuss use cases, which may on surface look different.

Actions / Targets

This proposed taxonomy is from Munzner's framework (Visualization Analysis and Design, chapter 3)

Actions in this case is a verb, and targets are **nouns**.

Reading: *A multi-level typology of abstract visualization tasks*, Bremmer, Munzner

Reading: *Taxonomy of interactive dynamics for visual analysis*, Schneiderman, Heer

Viz designer or user?

Are you consuming the visualization or producing it?

Viz tools fall somewhere along a continuum from specific to general.

On the general side, tools are flexible and allow users many choices what to make.

On the specific side, the tool is curated and choices are limited in how an end user can interact with the data set.

Exploratory vs Explainatory

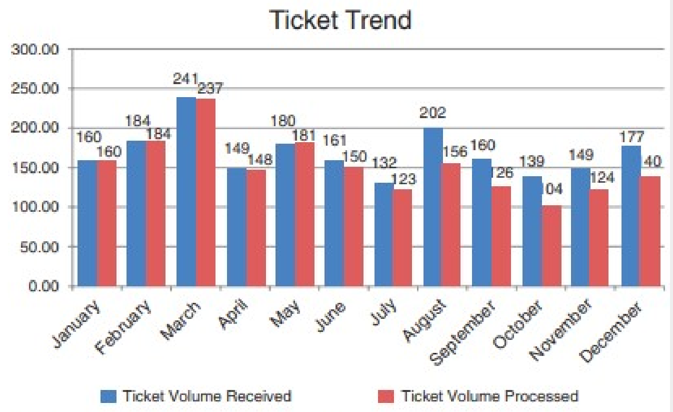
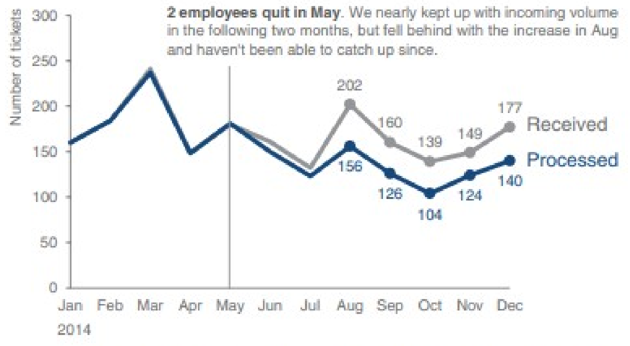


FIGURE 0.2 Example 1 (before): showing data

Please approve the hire of 2 FTEs

to backfill those who quit in the past year

Ticket volume over time



2 employees quit in May. We nearly kept up with incoming volume in the following two months, but fell behind with the increase in Aug and haven't been able to catch up since.

Data source: XYZ Dashboard, as of 12/31/2014 | A detailed analysis on tickets processed per person and time to resolve issues was undertaken to inform this request and can be provided if needed.

FIGURE 0.3 Example 1 (after): storytelling with data

Storytelling with data, chapter 1, Nussbaumer

3-levels of actions

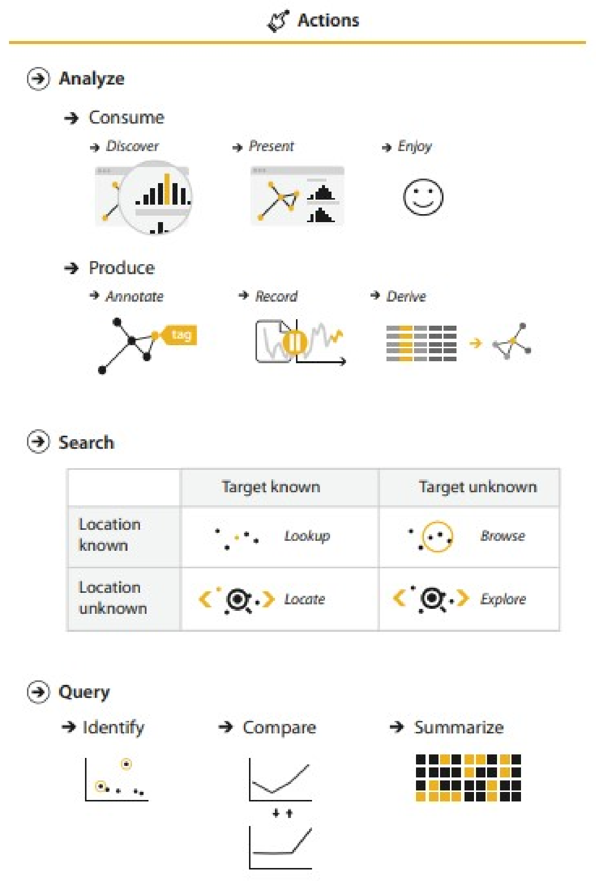
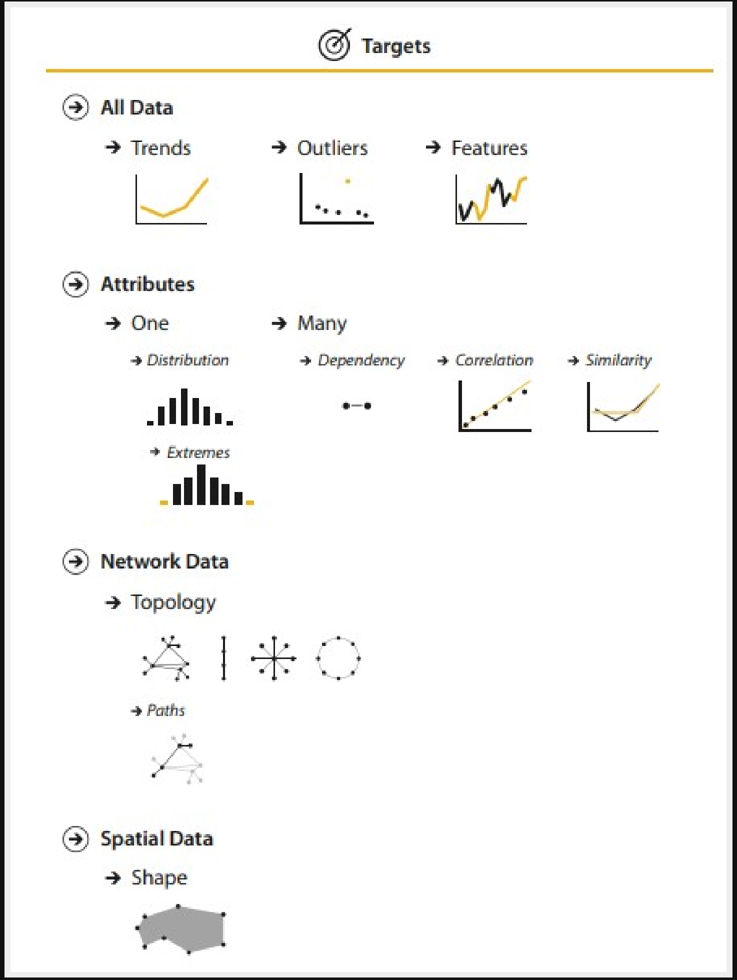


Figure 3.2. Three levels of actions: analyze, search, and query.

Visualization Analysis and Design, chapter 3, Munzner

Targets



Visualization Analysis and Design, chapter 3, Munzner

How: An overview

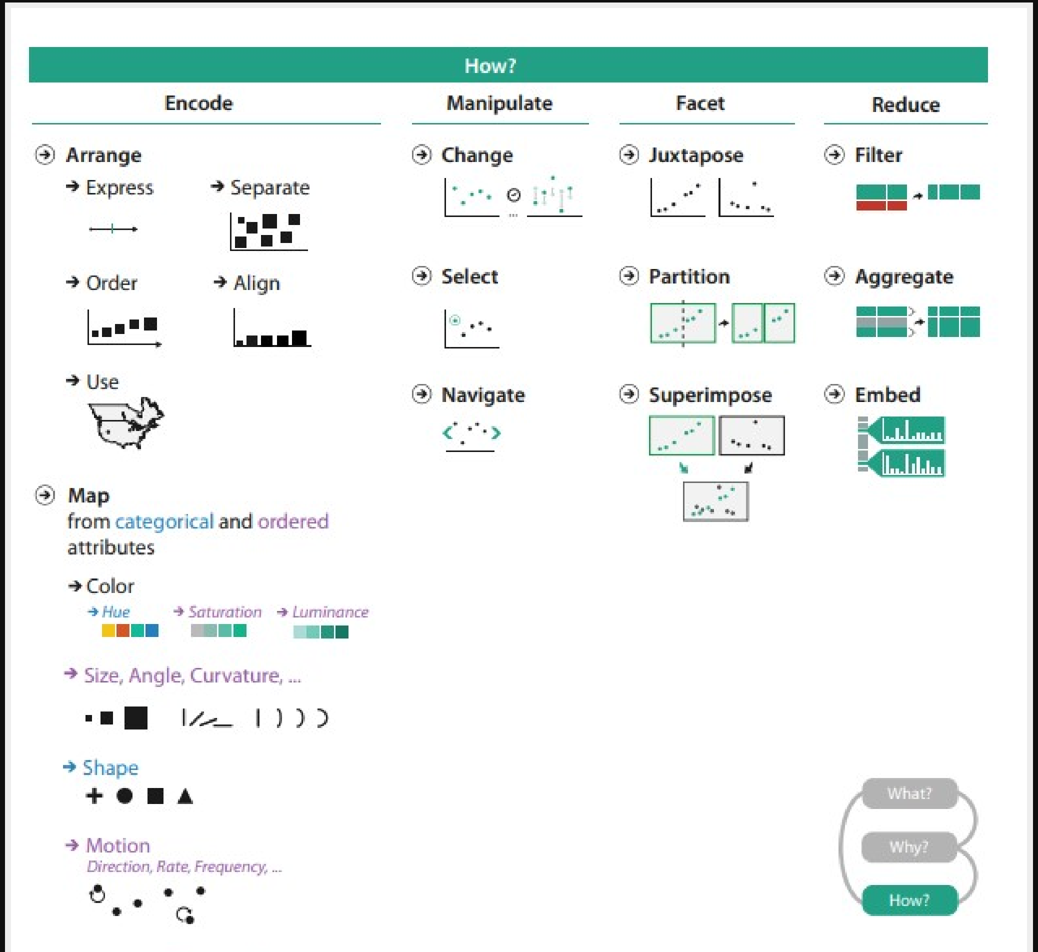


Figure 3.7. *How* to design vis idioms: encode, manipulate, facet, and reduce.

Git

GitHub Desktop: Git GUI

The easiest is probably GitHub Desktop.

Document for GitHub Desktop is excellent, and you can find it here.

The Git functions that you need to know are probably just **clone**, **fork**, **pull**, **push** and **commit**.

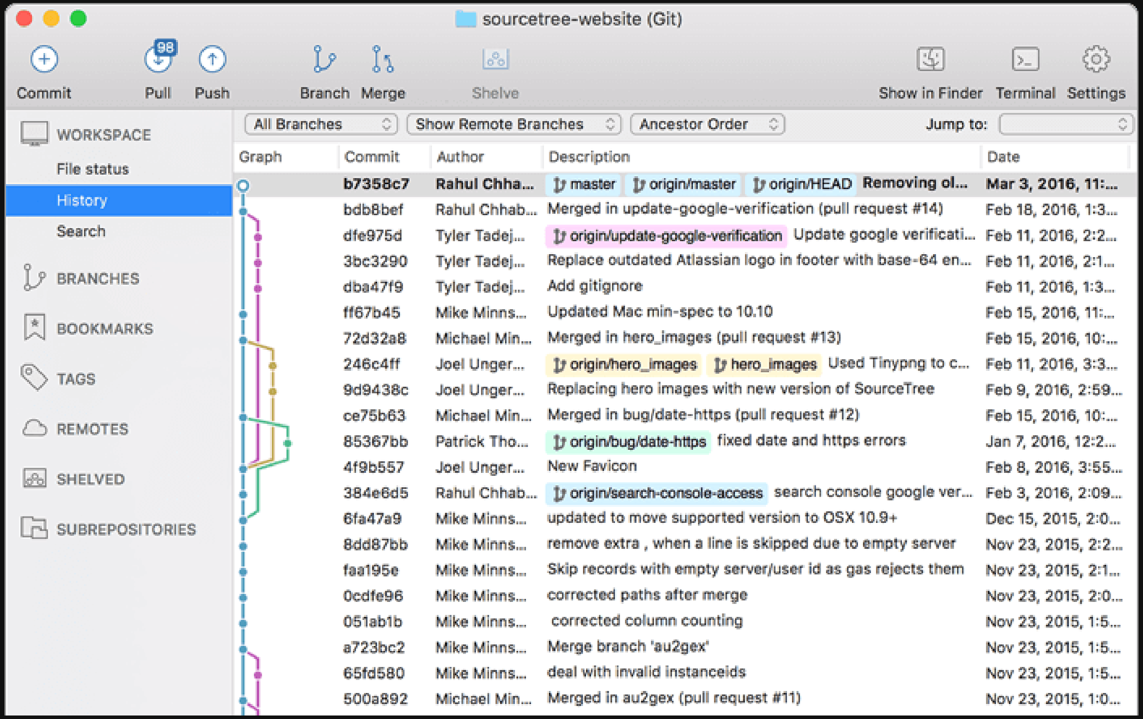
GitHub desktop makes this easy as it already has a UX walkthrough designed to guide you in the setup (with Git).

I'll do a quick walkthrough on how to setup a repo from scratch and commit a change.

Git GUI: Alternatives

I also like Sourcetree, which is another free Git GUI client.

It has some useful functions, notably a graph view of the repo changes.



All Branches | Show Remote Branches | Ancestor Order | Jump to:

Graph	Commit	Author	Description	Date
	b7358c7	Rahul Chha...	master origin/master origin/HEAD Removing ol...	Mar 3, 2016, 11:...
	bdb8bef	Rahul Chhab...	Merged in update-google-verification (pull request #14)	Feb 18, 2016, 1:3...
	dfe975d	Tyler Tadej...	origin/update-google-verification Update google verificati...	Feb 11, 2016, 2:2...
	3bc3290	Tyler Tadej...	Replace outdated Atlassian logo in footer with base-64 en...	Feb 11, 2016, 2:1...
	dba47f9	Tyler Tadej...	Add gitignore	Feb 11, 2016, 1:3...
	ff67b45	Mike Minns...	Updated Mac min-spec to 10.10	Feb 15, 2016, 11:...
	72d32a8	Michael Min...	Merged in hero_images (pull request #13)	Feb 15, 2016, 10:...
	246c4ff	Joel Unger...	origin/hero_images hero_images Used Tinypng to c...	Feb 11, 2016, 3:3...
	9d9438c	Joel Unger...	Replacing hero images with new version of SourceTree	Feb 9, 2016, 2:59...
	ce75b63	Michael Min...	Merged in bug/date-https (pull request #12)	Feb 15, 2016, 10:...
	85367bb	Patrick Tho...	origin/bug/date-https fixed date and https errors	Jan 7, 2016, 12:2...
	4f9b557	Joel Unger...	New Favicon	Feb 8, 2016, 3:55...
	384e6d5	Rahul Chhab...	origin/search-console-access search console google ver...	Feb 3, 2016, 2:09...
	6fa47a9	Mike Minns...	updated to move supported version to OSX 10.9+	Dec 15, 2015, 2:0...
	8dd87bb	Mike Minns...	remove extra , when a line is skipped due to empty server	Nov 23, 2015, 2:2...
	faa195e	Mike Minns...	Skip records with empty server/user id as gas rejects them	Nov 23, 2015, 2:1...
	0cdfe96	Mike Minns...	corrected paths after merge	Nov 23, 2015, 2:0...
	051ab1b	Mike Minns...	corrected column counting	Nov 23, 2015, 1:5...
	a723bc2	Mike Minns...	Merge branch 'au2gex'	Nov 23, 2015, 1:5...
	65fd580	Mike Minns...	deal with invalid instanceids	Nov 23, 2015, 1:5...
	500a892	Michael Min...	Merged in au2gex (pull request #11)	Nov 23, 2015, 1:0...

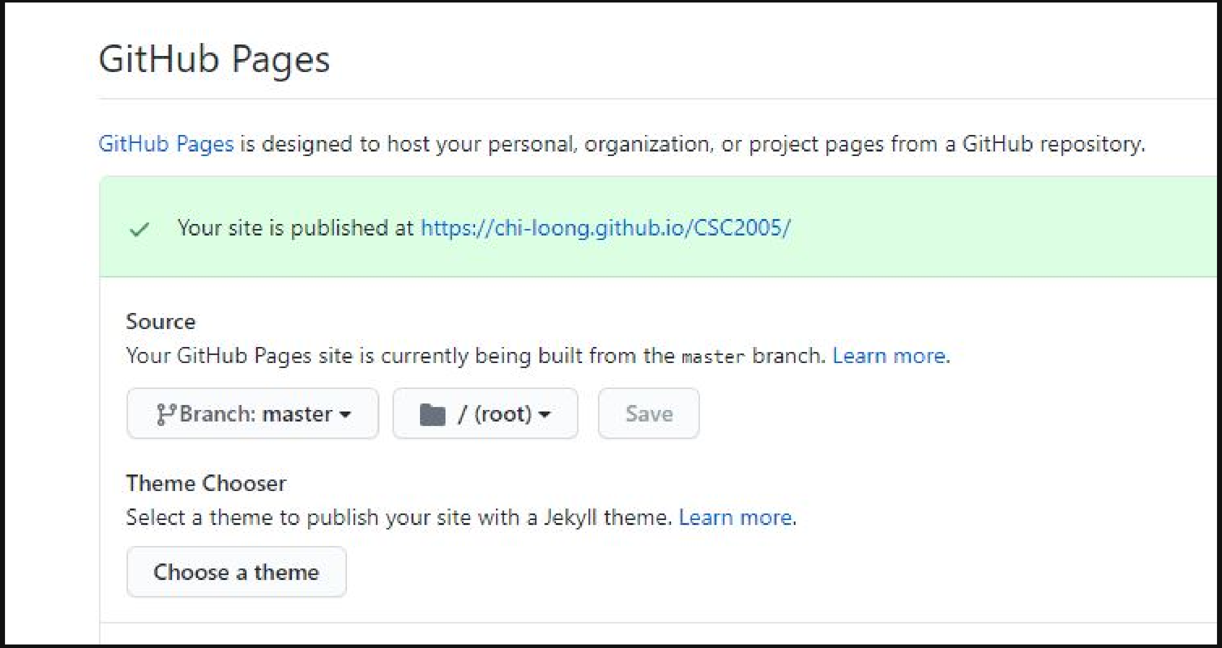
There are other Git GUIs like TortoiseGit, etc. What client or even command line is up to you. But no excuse in not knowing how to work with Git repos.

GitPages

Under the **settings** tab in your repo, turn on GitHub Pages.

You need to have an index.html file in your main repo page.

Read up on the docs.



GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

✓ Your site is published at https://chi-loong.github.io/CSC2005/

Source

Your GitHub Pages site is currently being built from the `master` branch. Learn more.

Branch: master ▾ | / (root) ▾ | Save

Theme Chooser

Select a theme to publish your site with a Jekyll theme. Learn more.

Choose a theme

Questions?

Chi-Loong | V/R