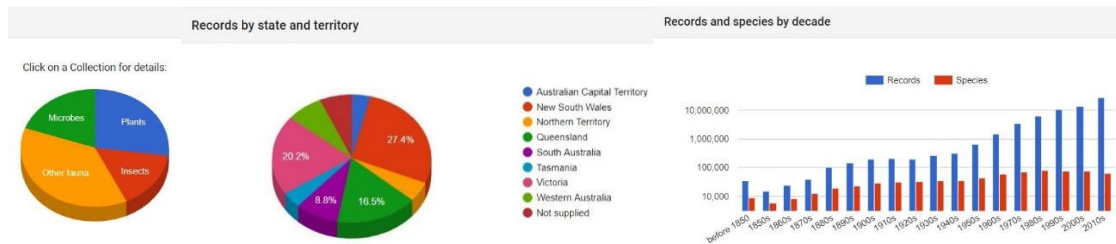
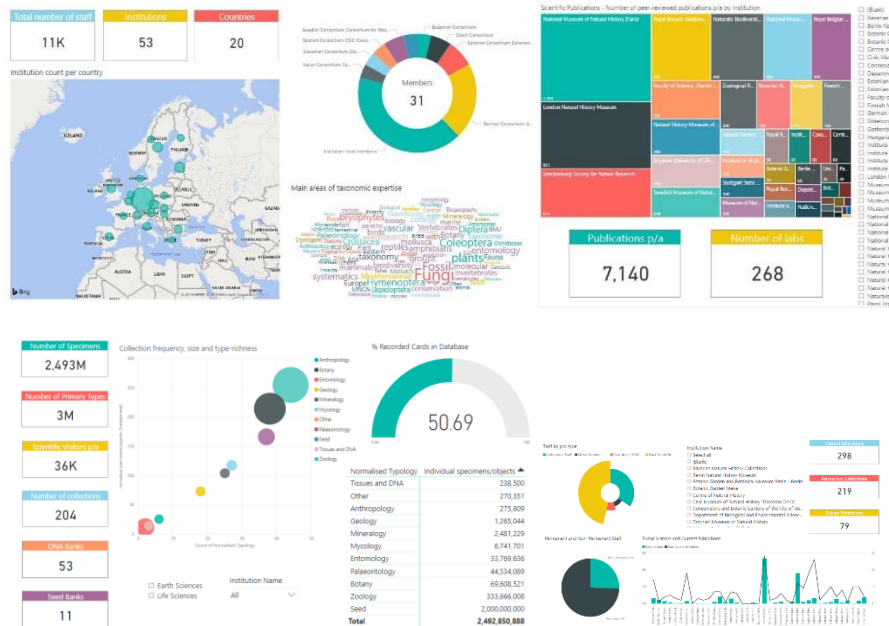


Appendix I: Inventory of Existing Museum Dashboards



Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
Atlas of Living Australia: Dashboard	Specimen count, Collection unit, Region, Year, Species count, Top Counts, Type count, DNA count, Publications count, Volunteer effort, Conservations status, Institution, Download count, Image count.	Pie Chart (3D), Bar Chart, Tables, Donut Chart	Clear contrasting colors; Hover boxes; Hyperlinked to other webpages; Table can display more if there are more than 7 rows, Some rows are hyperlinked	3D pie charts are inherently distorted; Hover box information is missing some units; No obvious order to the pie slices; Not very interactive; Unsure of units for y axis; No filters; First column labels are cut off prematurely; Some millions switch the Ms while other millions are spelled out	https://dashboard.ala.org.au/



Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
Consortium of European Taxonomic Facilities (CETAF): Passport Dashboard	Institutions count, Staff count, Countries count, Member categories, Expertise terms, Publication count, Institution, Lab count, Job type, Visitors count, Exhibitions count, Specimen counts, Type counts, DNA counts, Seed counts, Collection	Table, Map, Donut Chart, Word Cloud, Treemap, Filter (dropdown, picklist), Pie Chart, Dual Bar-Line Graph, Bubble Chart, Half Donut Chart, Table	Hover Boxes; All parts are interactive and linked as filters; Clear labeling and fonts; Organized in increasing order; Clickable to highlight and update Table; Value labeled on each segment of Treemap; Bubble Chart acts as filter; Can sort the table	Conflating color schemes; Can only select one institution in the picklist at a time; A 0 value shows up as "Blank" in the Table; Line graph not used across time but across institution; Table doesn't act as a filter; Table can show 2,493 M Y axis of Bubble Chart is "transformed" without an explanation	https://app.powerbi.com/view?r=eyJrjoiMzZmYmJhZTUyYUWUzZi00ZDZiLW11Zi00DU4zYjI2MzA4MTA4Zi0wZDQ6IjY1YzAxLTRlNzgtNDM3Zi1hMGQ0LWM4NTUzZTE5NjBjMSIsImMiOiJh9



Reset

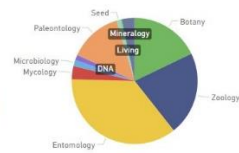
Select country: All

Select institute: All

Click on institute name to show proportional contribution

Country	Institute	Collection Size	Botany	Zoology	Entomology	Mycology	Microbiology	DNA	Paleontology	Seed	Living	Mineralogy
AT	Naturhistorisches Museum Wien	30,000,000	3,333,000	3,333,000	3,333,000	3,333,000	3,333,000	3,333,000	3,333,000	3,333,000	3,333,000	3,333,000
AR	Agencia Nacional de Promoción Científica y Tecnológica	4,000,000	3,333,000	0	0	200,000	0	10,000	0	10,000	300,000	0
BE	Belgian Museum of Natural History (MNHN)	25,000	0	0	0	0	0	0	0	0	25,000	0
BR	Academia Brasileira de Ciências (ABC)	10,000,000	200,000	14,800,000	10,000,000	0	0	200,000	2,000,000	0	0	2,200,000
CA	Royal Museum for	8,640,000	80,000	1,540,000	6,000,000	0	0	0	10,000	0	0	107,000
Total		527,900,000	94,296,000	113,317,000	190,510,000	17,999,000	8,380,000	7,027,000	72,014,000	5,200,000	1,290,100	17,283,000

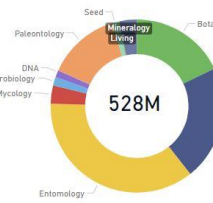
Disclaimer: Numbers per collection category are derived from percentage class.



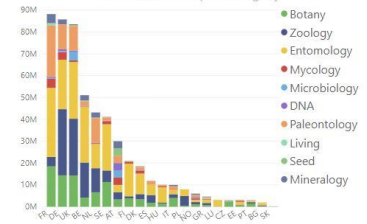
Reset

Select country: All

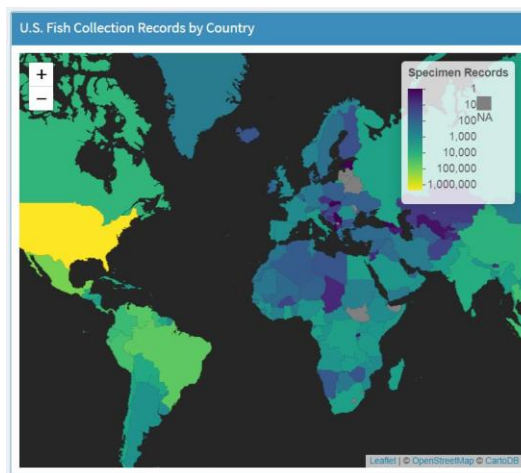
Collection size per category



Collection size per category

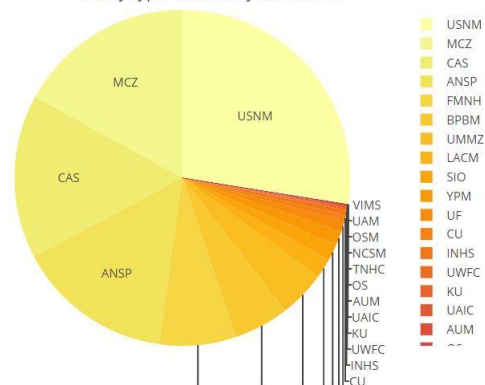


Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
Distributed System of Scientific Collections (DISSCO)	Institute name, Institute country, Collection type,	Pie chart, Donut chart, Bar chart, Table, Filters (dropdown)	Interactable charts; Filters (country, institution, collection); Easy reset button; Hover boxes with exact values; Table helps if slices are too small; Shrinking pie chart shows proportion of institution in context	Filter capabilities are split between two displays; Uses country abbreviations; inexplicable "A.3 country" as a label in the hover boxes seems overlooked	https://app.powerbi.com/view?r=eyJrjoiNTVlYjM2ZjU0NjI4Ny00MDA5LWEzNTgtOTgzOWI1N2Q1NmNhlWidCI6IjZDI0OTg0LTBhYTMtNGZjNS1mMDIjLTRkNmViZmFhNThmYiIsImMiOi9

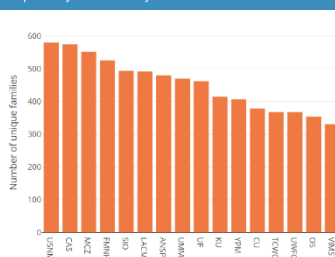


Primary type records by ASIH Code

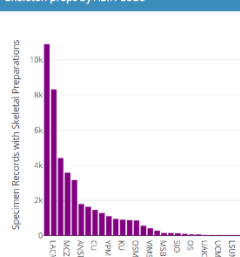
Primary type records by ASIH Code



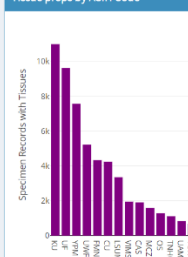
Unique family name values by ASIH Code



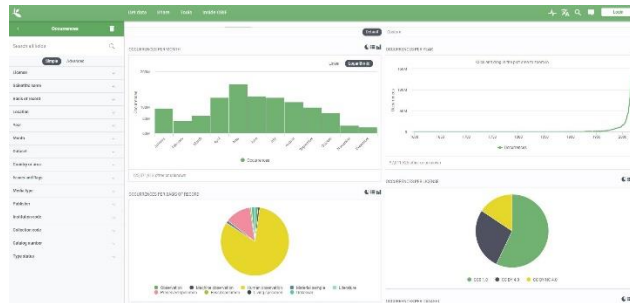
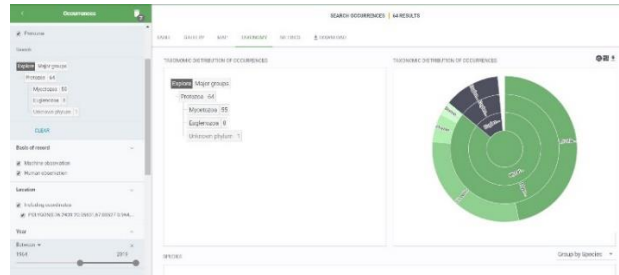
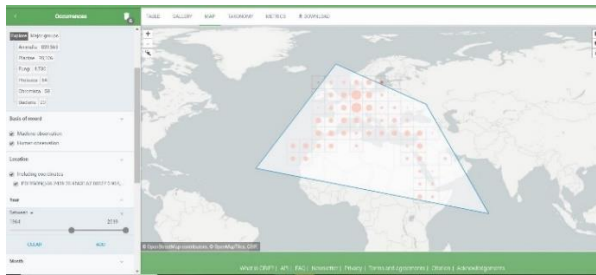
Skeleton preps by ASIH Code



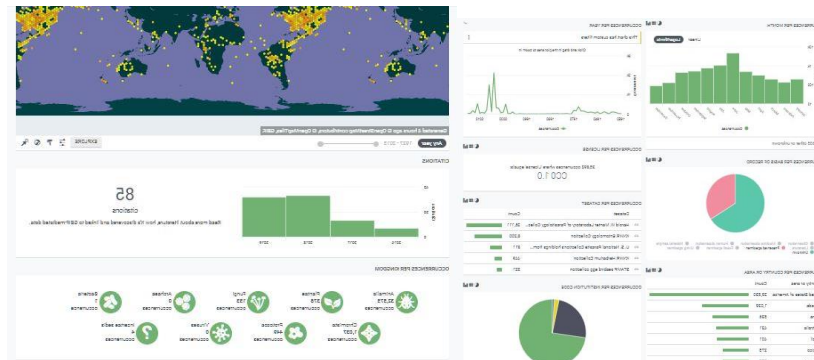
Tissue preps by ASIH Code



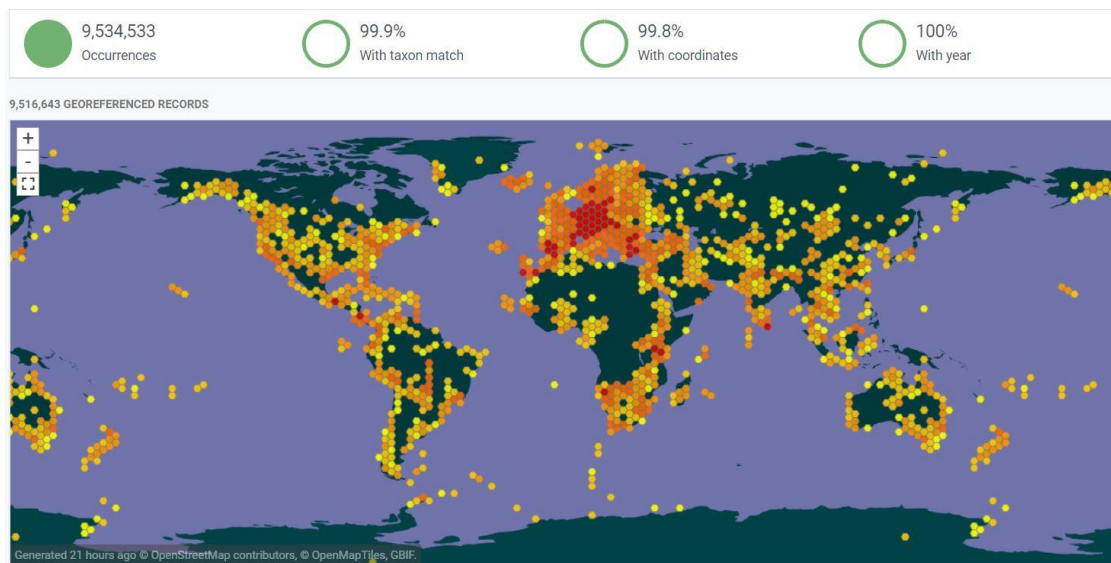
Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
FishFindR: Dashboards	Specimen count, Country, Institution; Preparation type (Skeleton, Tissue, C&S), Unique Family Names	Map, Pie chart, Bar Chart	Sharp color scheme; Hover boxes; Color ramp used instead of dozens of different colors; Can toggle hover boxes; Bars and slices are sorted in increasing order; Many toggles and click tools offered; Can click to highlight select; Can zoom.	Map is not clickable; No filters; Many slices, hard to read; Pie is not clickable; Uses ASIH codes as abbreviations; All three bar charts are not on the same y axis scale; Not all labels are shown on the default zoom scale	http://fishfindr.net/



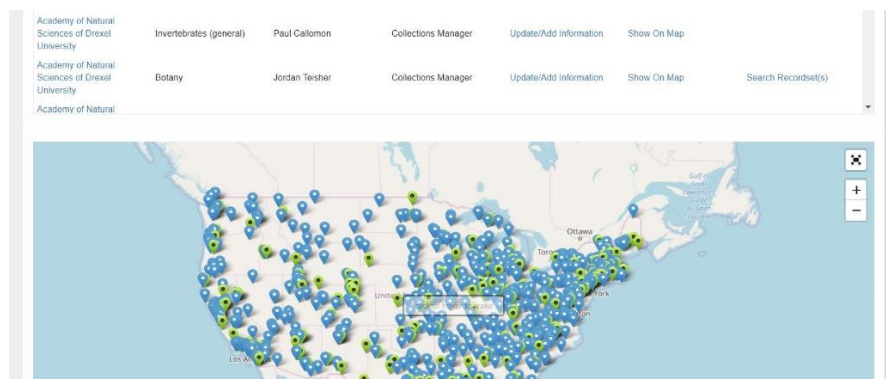
Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
GBIF: Occurrence Dashboards	Coordinates, Observation type, Taxonomy, Date, Geography, Institution code, Catalog number, Type status, KPCO, Issue/Flag Type	Map, Filters (Dropdown, Slider, Picklists), Sunburst/Treemap, Table, Bar Chart, Pie Chart, Line Graph, Text	Can select geographically using customized polygon; Many filters available; Adjusts scale based on zoom; Hover Boxes; Can toggle between Sunburst and TreeMap; Clickable; Can toggle between Pie, Bar and Table Bar; Shows database management metrics using Issues and Flags by type; Some basic interactable links between them	Few with hover boxes; Not clickable; Not much content in hover boxes	https://www.gbif.org/occurrence/charts



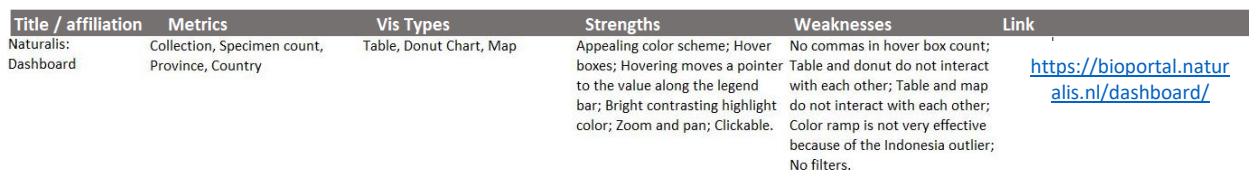
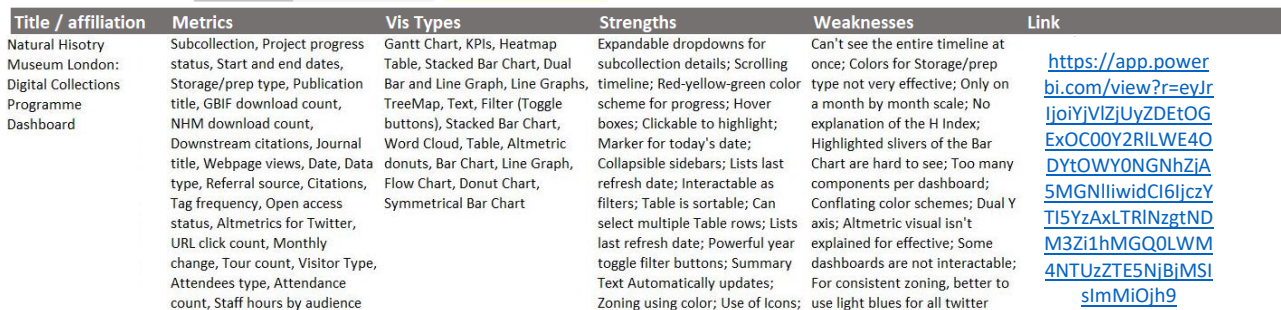
Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
GBIF: Publisher Metrics	Year, Kingdom, Record Type, Country, Institution, Collection Code.	Map, Bar Chart, Text, Pie Chart, Table Bars, Line Graph	Can toggle between Pie Chart, Bar Chart, or Table bars; Hover boxes; Interactable linked as filters; Icons used for Kingdoms; maps can zoom and pan;	Somewhat conflating colors; Map is only clickable when selecting a tool to do so; No hover boxes on map	https://www.gbif.org/publisher/3988de20-0560-11d8-b851-b8a03c50a862/metrics

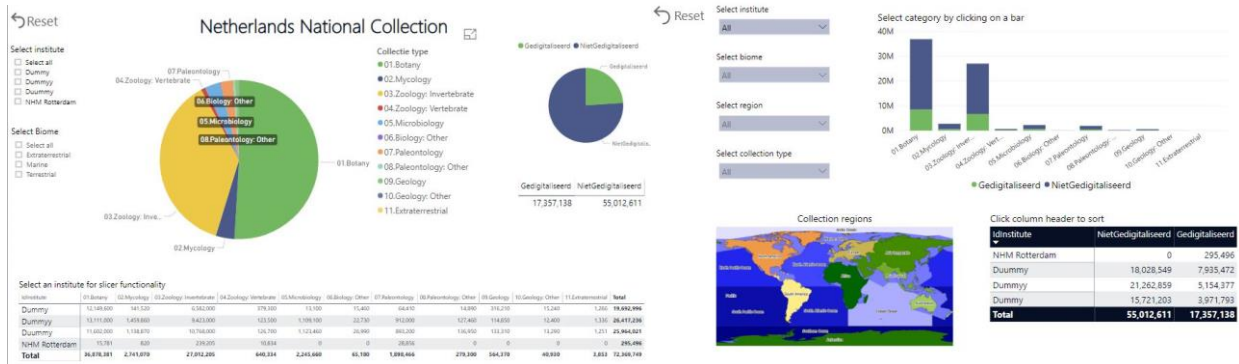


Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
GBIF: Query Map	Coordinates, Number of occurrences, % with taxon match, % with coordinates, % with year.	Map, Donut Chart.	Offers multiple map projections; Adjusts scale based on zoom; Zoom and pan.	No hover boxes; Clicks lead to new webpage of query results table.	https://www.gbif.org/dataset/6ac3f774-d9fb-4796-b3e9-92bf6c81c084

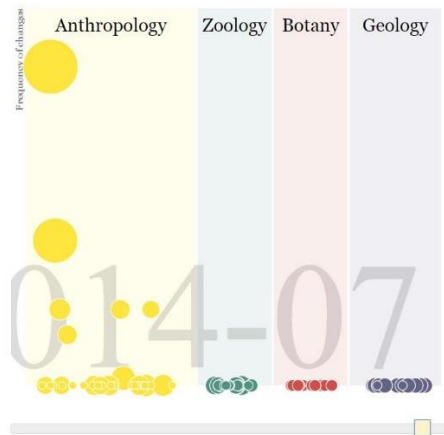


Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
iDigBio: Data Portal	Institution, Collection, Contact, Address, Multiple or single collection	Table, Map	Minimal fields; Familiar pins used on map; Click box; Table has Hyperlinks.	Only uses a map; Unsure why to differential between institutions with single or multiple collections.	https://www.idigbio.org/portal/collection

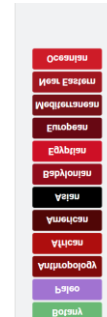
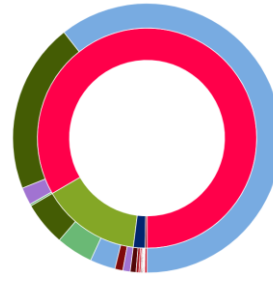




Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
Netherlands National Collection	Collection, Digitization status, Institute, Biome, Region	Pie Chart, Table, Filters (Picklist, Dropdown), Bar Chart, Map	Hover boxes; Interactable as filters for each other; Easy filter reset button.	Some redundant information such as the Pie Chart with a Table of values; Redundant labels on Pie Chart; Too many slices of the Pie Chart; Bar chart scale leaves small values invisible; Regions map is not clickable.	https://app.powerbi.com/view?r=eyJrJrJrJoIOTHiNTg0NWYtM2Y4MC00NGJkLWlyNlItODRhODdiYikyNDMxliwidCI6IjhiZDlOTg0LTBhYTMtNGZjNS1iMDliLTRkNmVjZmFhNThmYilslmMiOjI9



Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
The Field Museum: Collections Database Visualization	Collection type, Year Month Day, Frequency of log changes	Motion Chart (animated bubbles), Scatterplot	Corresponding shaded fields behind on the color dot categories; Contrasting colors for categories; Can manually move time or allow for an automatic animation; Date displayed on the field allows user to not move eyes while watching the animation.	Only depicts 10% of the collection; Hover boxes only show unexplained ID numbers; No labels on dots.	https://emudata.fielddmuseum.org/emu-view/



Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
The Field Museum: Global Collections Dashboard	Institution, Collection size, Geographic coordinates, % of global collection	Map, Sunburst Donut Chart	Hover boxes when clicked; Recognizable map pin symbol used; Can zoom and pan; Info displayed when hovering on sunburst is clear and shows the hierarchy of the selection in a linear format.	No legend for blue-green-red significance of map pins; Color schemes for institution and collections are very similar; No way to filter; Data sources may be biased since Naturalis completely dominates what is "global collections"; uses undefined abbreviations of collection types and institutions.	https://collections- dashboard.fieldmus- eum.org/



Title / affiliation	Metrics	Vis Types	Strengths	Weaknesses	Link
The Smithsonian: National Collections	Collection, Specimen count, Collection unit, Degree of digitization, Year, Physical accessibility, Physical condition, Storage equipment, Housing materials, Loan destination	Bubble Cluster, Filters (dropdown), Bar Chart, Line Graph, Text, Map	Hover Boxes with more information; Filter; Clickable but only to highlight; Stacked filters; Filter reset buttons; Start and end values are labeled; Uses dots to avoid the misleading geographic area fill method.	Color choice isn't distinctive, art is highlighted; Not all visuals are interactive; Font is not easy to read; Percentages in Hover boxes are not necessary and confusing; X axis labels are sideways, difficult to read; End value labels are overlapping the data; Simple text exists only to summarize the map; No depiction of the number of loans, all circles the same size and color, count given in hover box only.	https://www.si.edu/d- ashboard/national- collections