



Useful data viz

with R

@AyRenay

Hello!

I am Alexis

+ Johnson-Gresham

I do **data & analytics**
consulting





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A decorative border surrounds the central text, composed of various mathematical symbols in black and cyan. The symbols include circles (some with outlines, some solid), plus signs, multiplication signs (x), and small dots. The symbols are scattered across the top, bottom, and sides of the slide.

Why should you
care?

Why should you care?

Visualization
empowers
understanding
and action.

What should you walk away with?



Awareness of
opportunities to clarify



Familiarity with
improvement strategies

The background is a light gray color, decorated with a variety of small, scattered geometric shapes. These include solid teal circles, hollow teal circles, solid light gray circles, hollow light gray circles, teal plus signs, light gray plus signs, teal 'x' marks, and light gray 'x' marks. The shapes are distributed across the entire page, creating a subtle, modern pattern.

1

Opportunities

Warning signs

- “I don’t get it.”
- “What’s the point?”
- “This is confusing.”
- “I’m not sure where to begin.”
- “How does this relate?”
- “...”
- No one talks about or refers to it again.

Winning signs

- “This will be useful.”
- “Here’s where I’d like to go from here.”
- “I know someone else who needs this.”
- “Now I understand [insert thesis here].”
- People are sharing and talking about it.



2

Strategies

Ways to make your viz more useful

- A. Highlight takeaways
- B. Build understanding
- C. Minimize distractions

Highlight takeaways

What message should your audience walk away with?

- Use the title to describe a major trend
- Include annotations for representative or interesting groups
- Use a color to emphasize the most important data points and make others gray

Build understanding

How should the audience's awareness evolve?

- Add a second graph or chart
- Rank or order data points
- Increase weight, size, intensity, and granularity from left to right and top to bottom (and/or beginning to end)

Minimize distractions

What is competing with your takeaway or story?

- Check for conflicting colors and fonts
- Reword, remove, resize, or recolor text
- Increase whitespace
- Limit, combine, or recalculate data
- Adjust gridlines
- Change precision

The background is a light gray color, decorated with a variety of small, scattered symbols. These include teal circles, gray circles, teal plus signs, gray plus signs, teal crosses, gray crosses, and small teal dots. On the left side, there is a large teal circle containing a pink number 3.

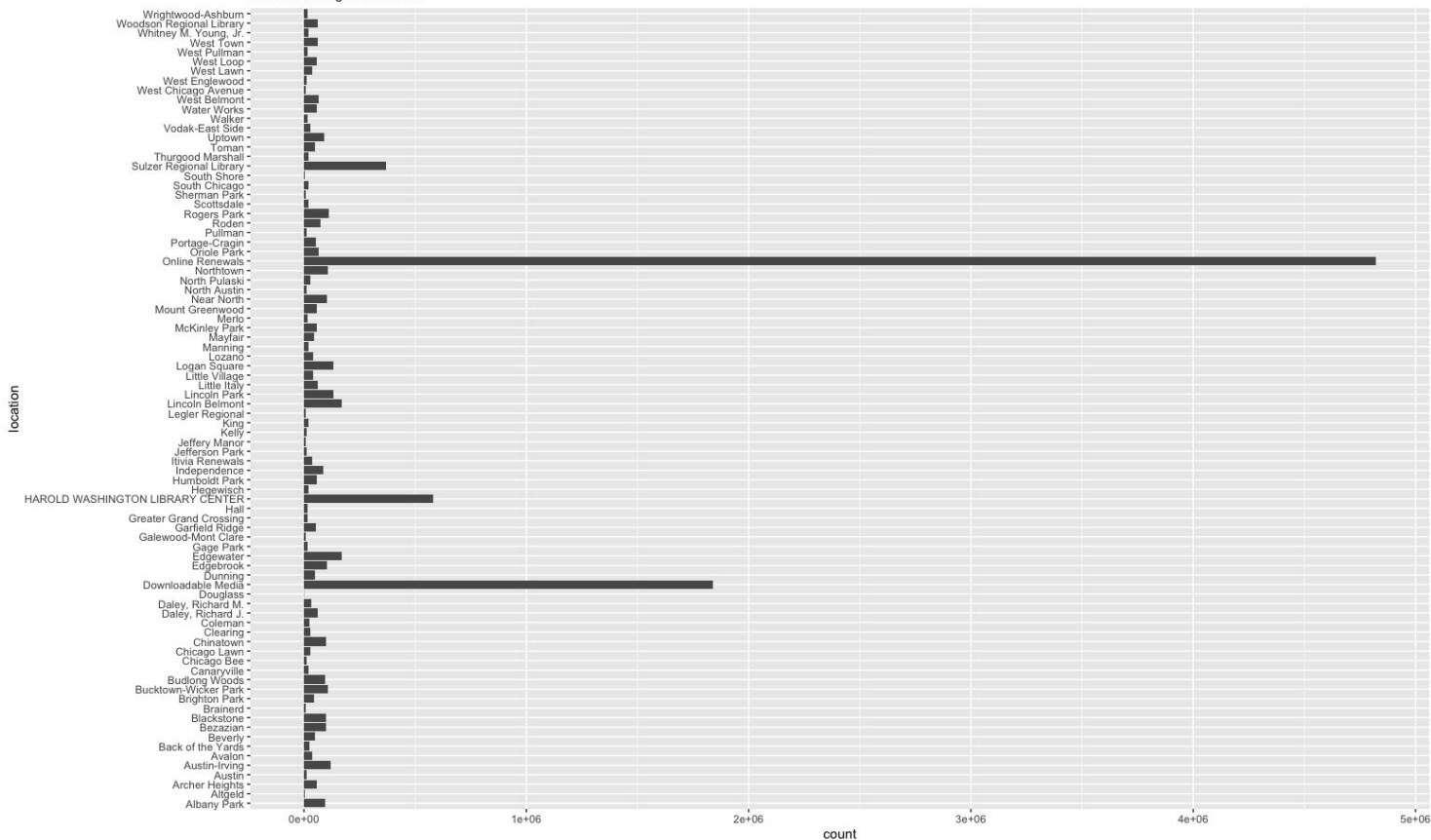
3

See it in action

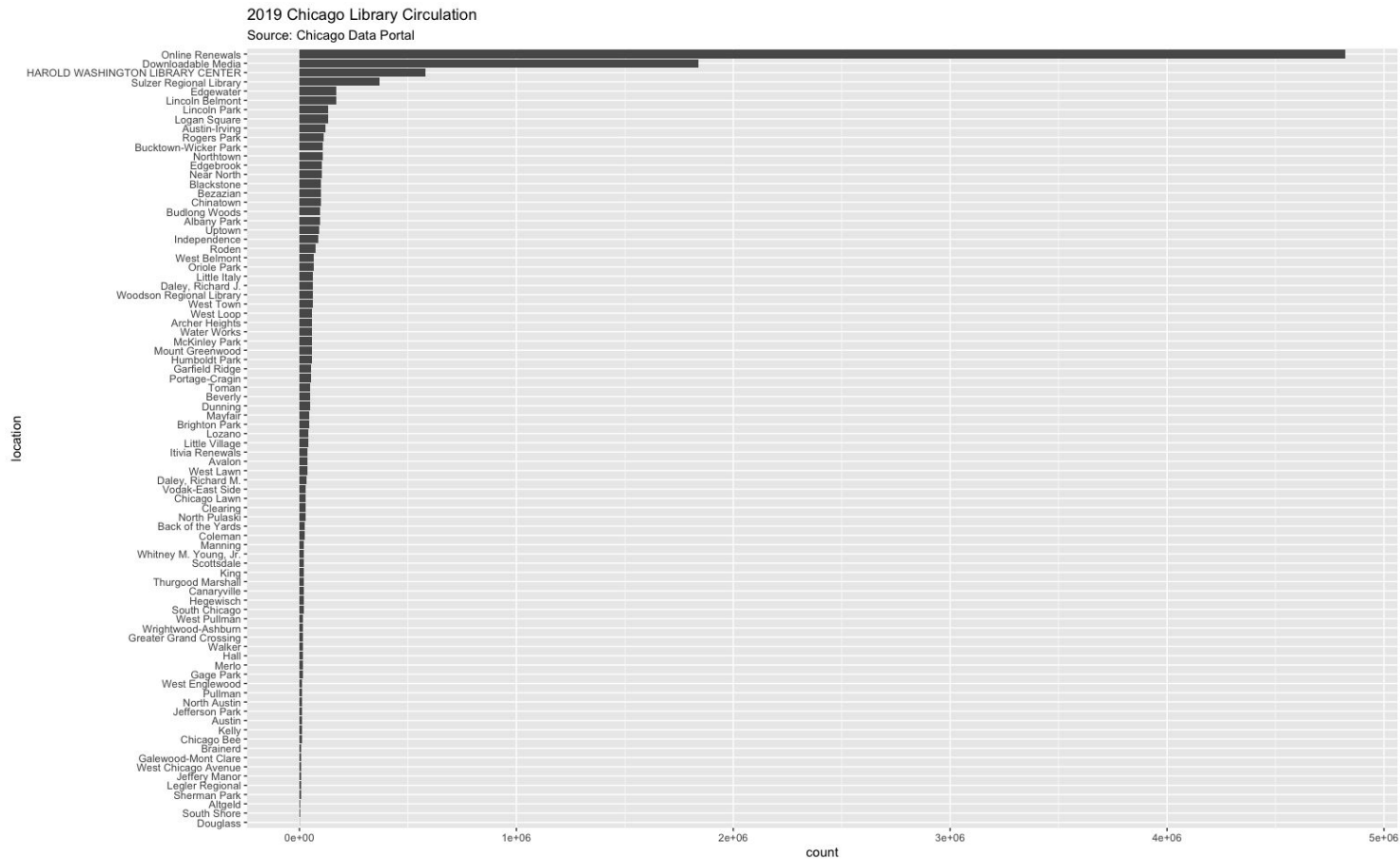
What strategies can we apply?

2019 Chicago Library Circulation

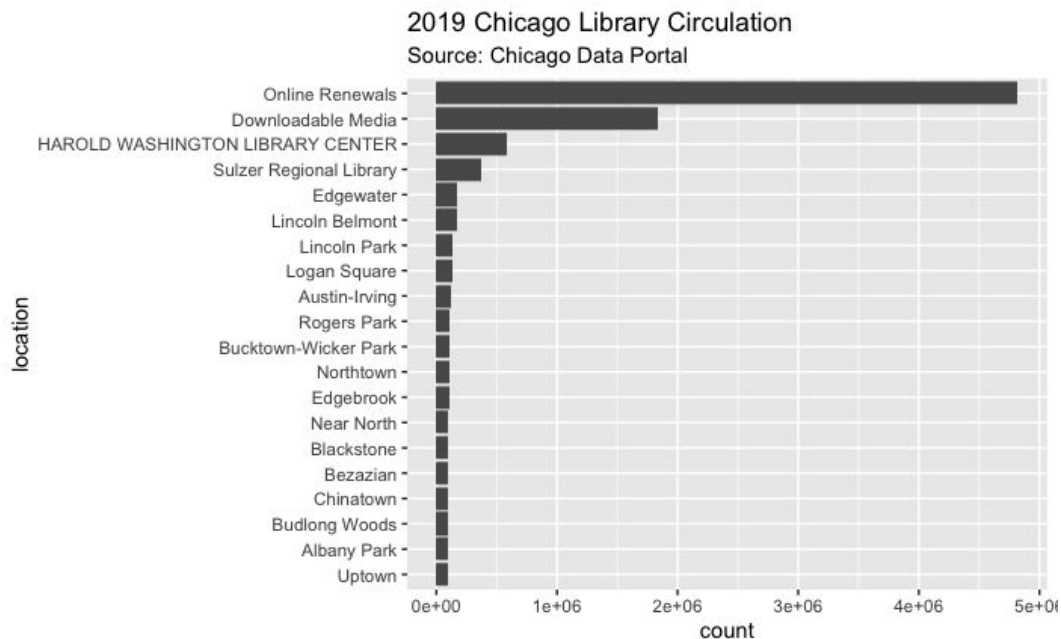
Source: Chicago Data Portal



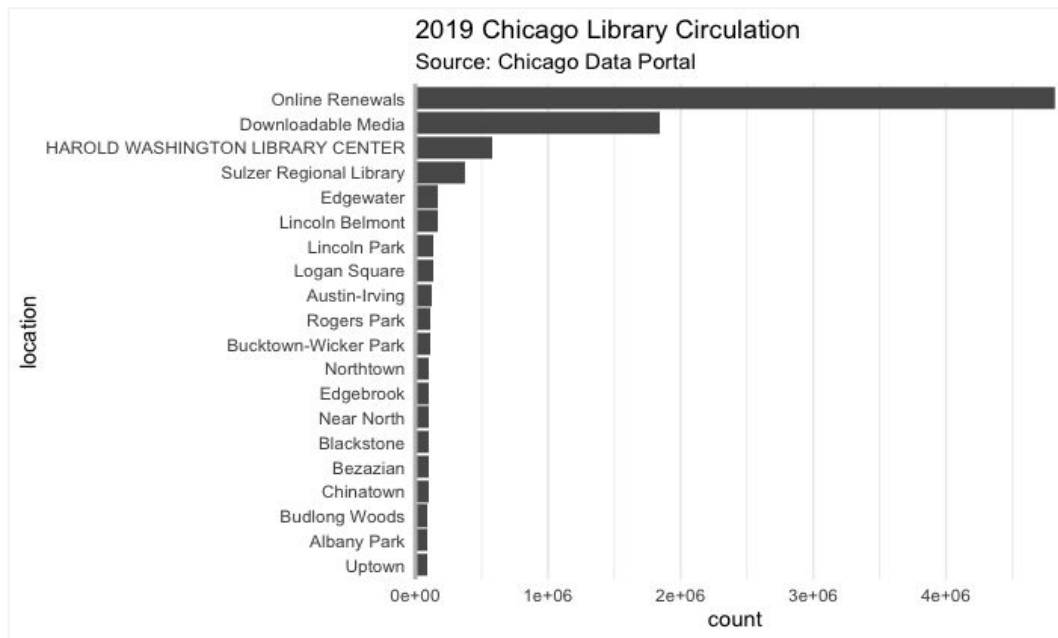
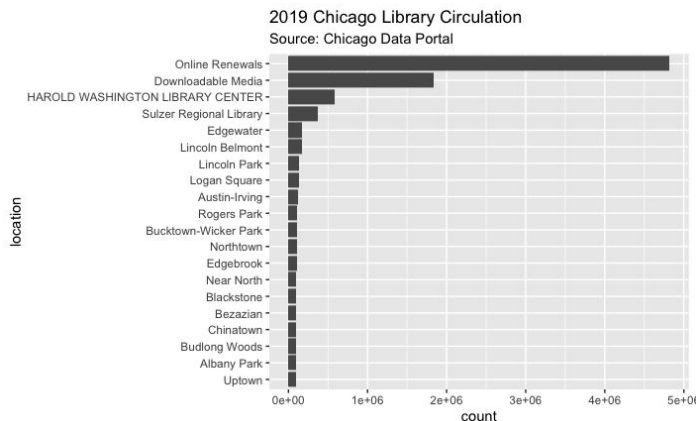
Build understanding with rank or order



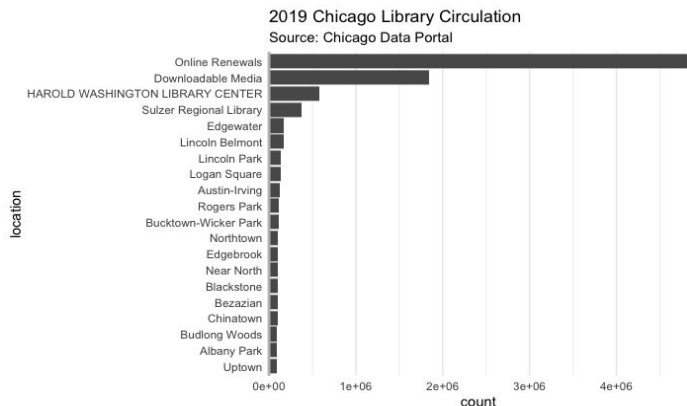
Minimize distractions with **filtering**



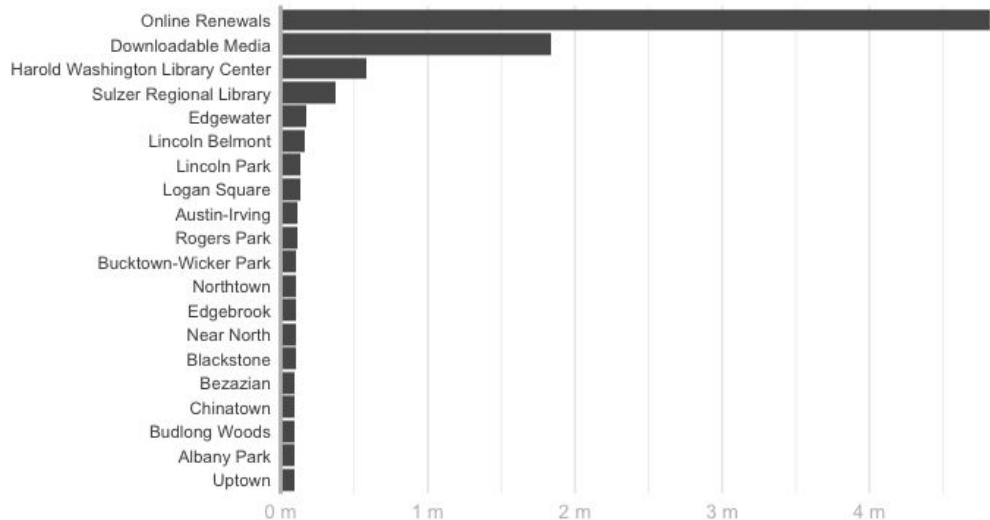
Minimize distractions by adjusting gridlines



Build understanding + minimize distractions by adjusting the titles and labels



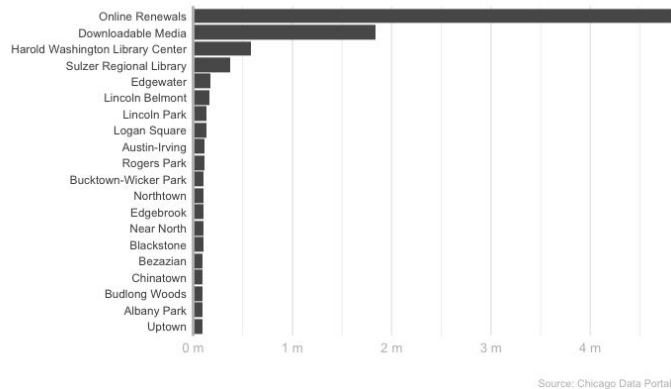
2019 Chicago Library Circulation by Location



Source: Chicago Data Portal

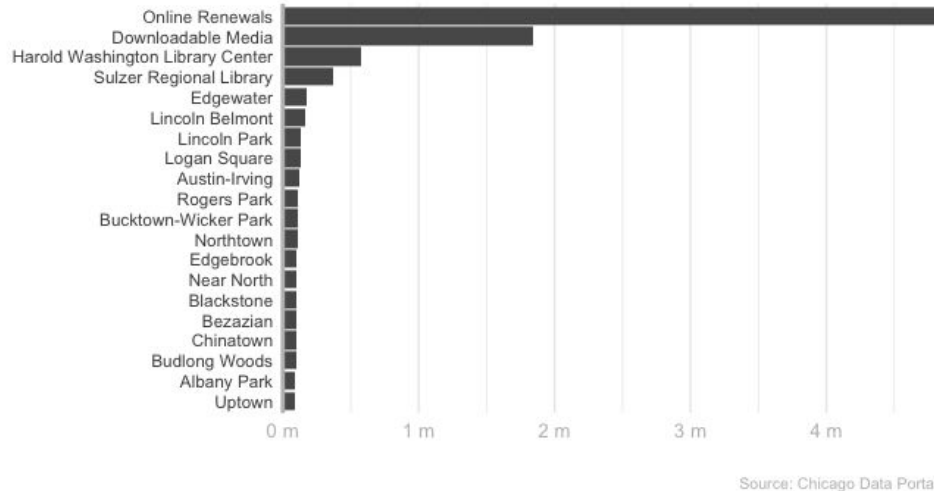
Highlight takeaways by describing trends in the title

2019 Chicago Library Circulation by Location

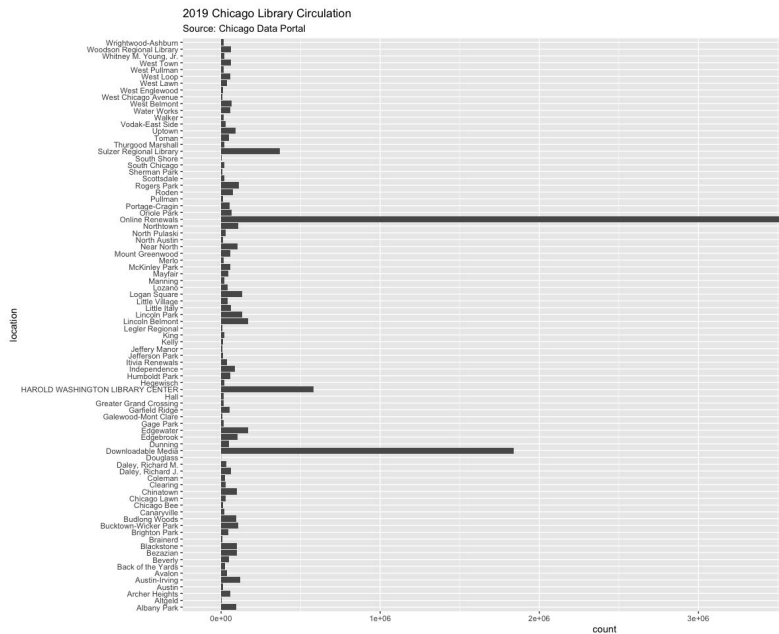


Online renewals and downloadable content accounted for the vast majority of library circulation totals in 2019

Top 20 locations by total circulation

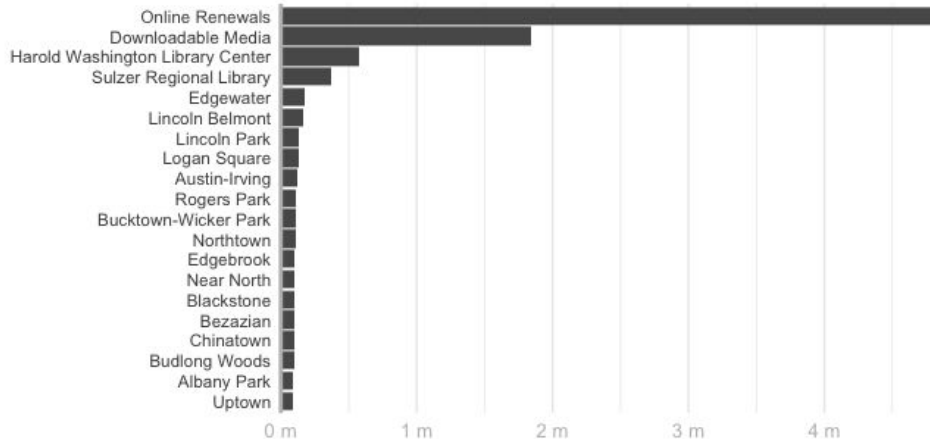


Before and after



Online renewals and downloadable content accounted for the vast majority of library circulation totals in 2019

Top 20 locations by total circulation

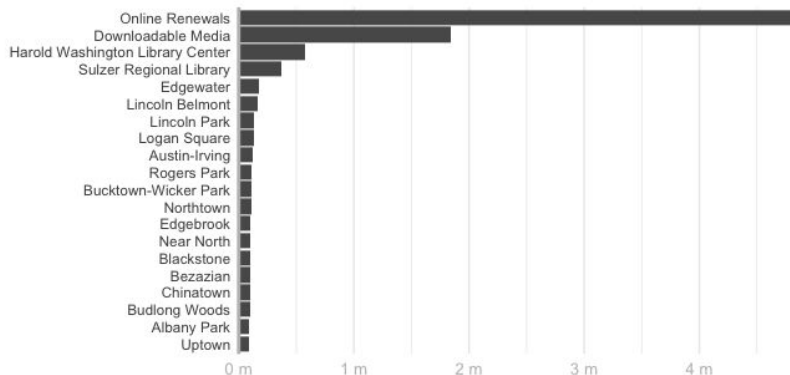


Source: Chicago Data Portal

Bonus: Build understanding by pairing multiple charts

Online renewals and downloadable content accounted for the vast majority of library circulation totals in 2019

Top 20 locations by total circulation



Source: Chicago Data Portal

The top 20 locations account for around 80% of total circulation

| Location | Share of 2019 circulation |
|----------------------------------|---------------------------|
| Online Renewals | 42.0% |
| Downloadable Media | 16.0% |
| Harold Washington Library Center | 5.1% |
| Sulzer Regional Library | 3.2% |
| Edgewater | 1.5% |
| Lincoln Belmont | 1.5% |
| Lincoln Park | 1.2% |
| Logan Square | 1.1% |
| Austin- Irving | 1.0% |
| Rogers Park | 1.0% |
| Bucktown-Wicker Park | 1.0% |
| Northtown | 0.9% |
| Edgebrook | 0.9% |
| Near North | 0.9% |
| Blackstone | 0.9% |
| Bezazian | 0.9% |
| Chinatown | 0.8% |
| Budlong Woods | 0.8% |
| Albany Park | 0.8% |
| Uptown | 0.8% |
| sum | 82.27% |



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