Béatrice Monvoisin - Junior Data Analyst - 29.08.2025

Stadtbibliothek Pankow

What librarians have always wanted to know?

Agenda

1. Context

2. Goals

3. Data

4. Library Science

5. EDA - Mapping

6. KPI

7. Dashboard

8. Recommandations

1. Context

- Pankow population: 427,276
- 8 public libraries
- Visits: 970,121
- Loans: 2,017,941
- Collection: 331,318 items
- Events: 5,231
- Acquisition budget: 638,000 €

2. Goals

- Provide an overview of user profiles

- Trying to disprove old beliefs about collection management

- Explore spatial patterns through data mapping

- Evaluate the collection with key performance indicators (KPI)

- Present a dashboard as a tool for library management

3. Data

Ausleihe: 2024

- 1,3 M rows × 22 columns

- 1 row = 1 loan

- Features: Mediennummer, Bibliothek, Erw.-Kinder, Medientyp, Sachgruppe, Standing Order, Geschlecht, Alter, Verkehrszelle.

Bestand: 2024 & 2022

- 331K rows × 23 columns

- 1 row = 1 item

- Features: Bibliothek, Mediennummer, Erw.-Kinder, Medientyp, Sachgruppe, Inventarisierungsdatum, Ausleihen, Verlängerungen, Erwerbungsart, Exemplare.
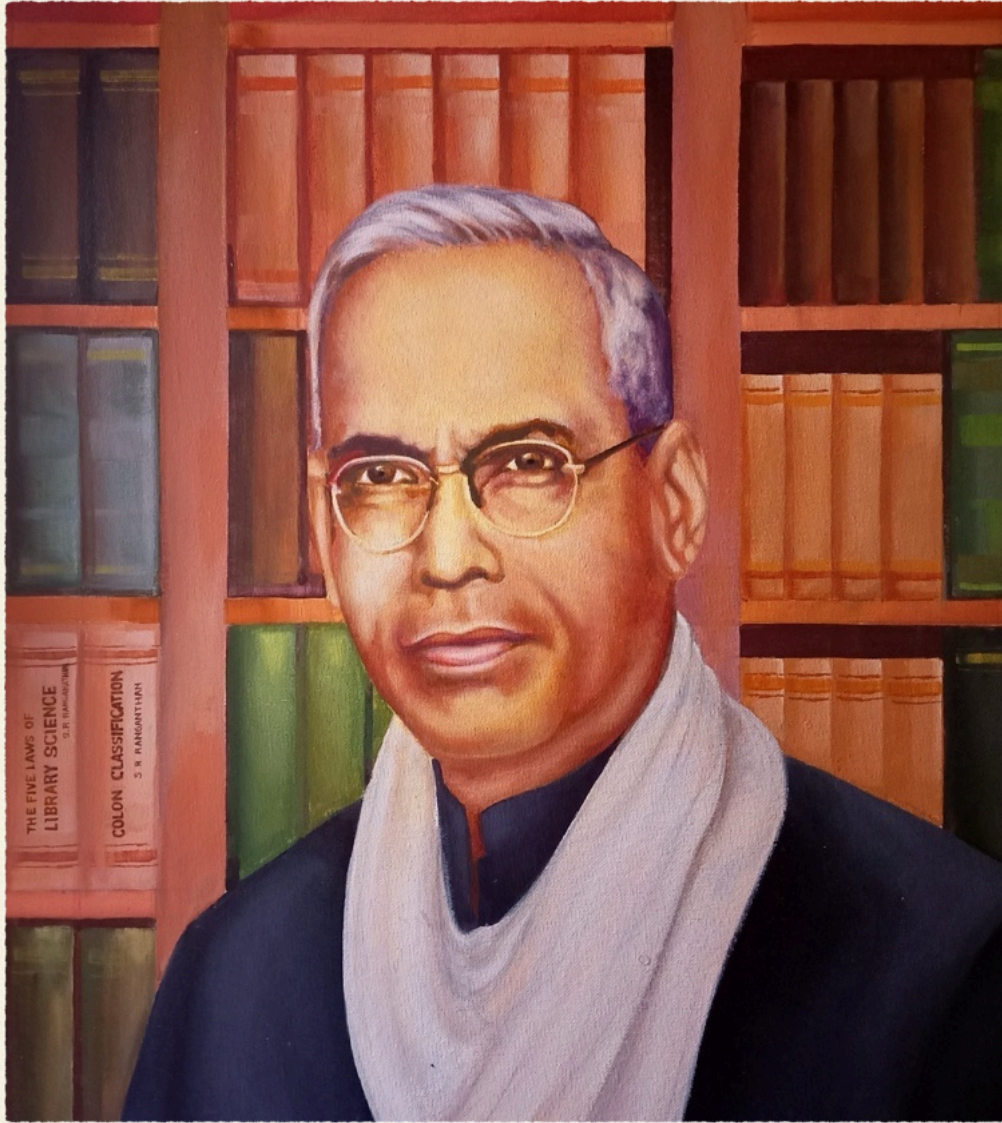
Aktive Leser*innen: last 12 months

- 46K rows × 10 columns

- 1 row = 1 user using the library at least once

- Features: Bibliothek, Geschlecht, Alter, Verkehrszelle

Kosten- und Leistungsrechnung: 2025 & 2024

- 19 rows × 6 columns

- 1 row = 1 month

- Features: Jahr, Monat, Besucher, Entleihungen, Teilnehmer, Azubis

4. Library Science

- S. R. **Ranganathan** (1892-1972)
- The **Five Laws** of Library Science (1931):
    - Books are for use.
    - Every person has his or her book.
    - Every book has its reader.
    - Save the time of the reader.
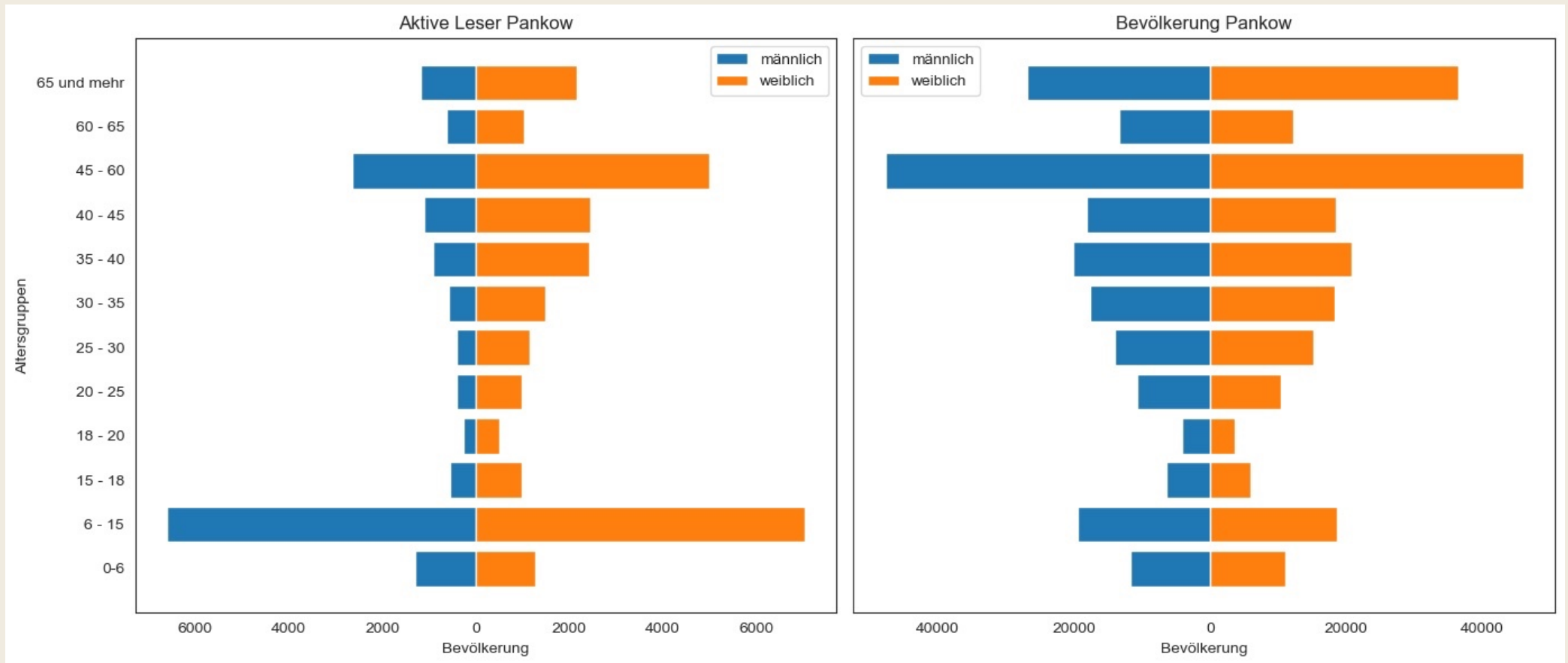   - A library is a growing organism.

5. EDA - Mapping

- User Profil
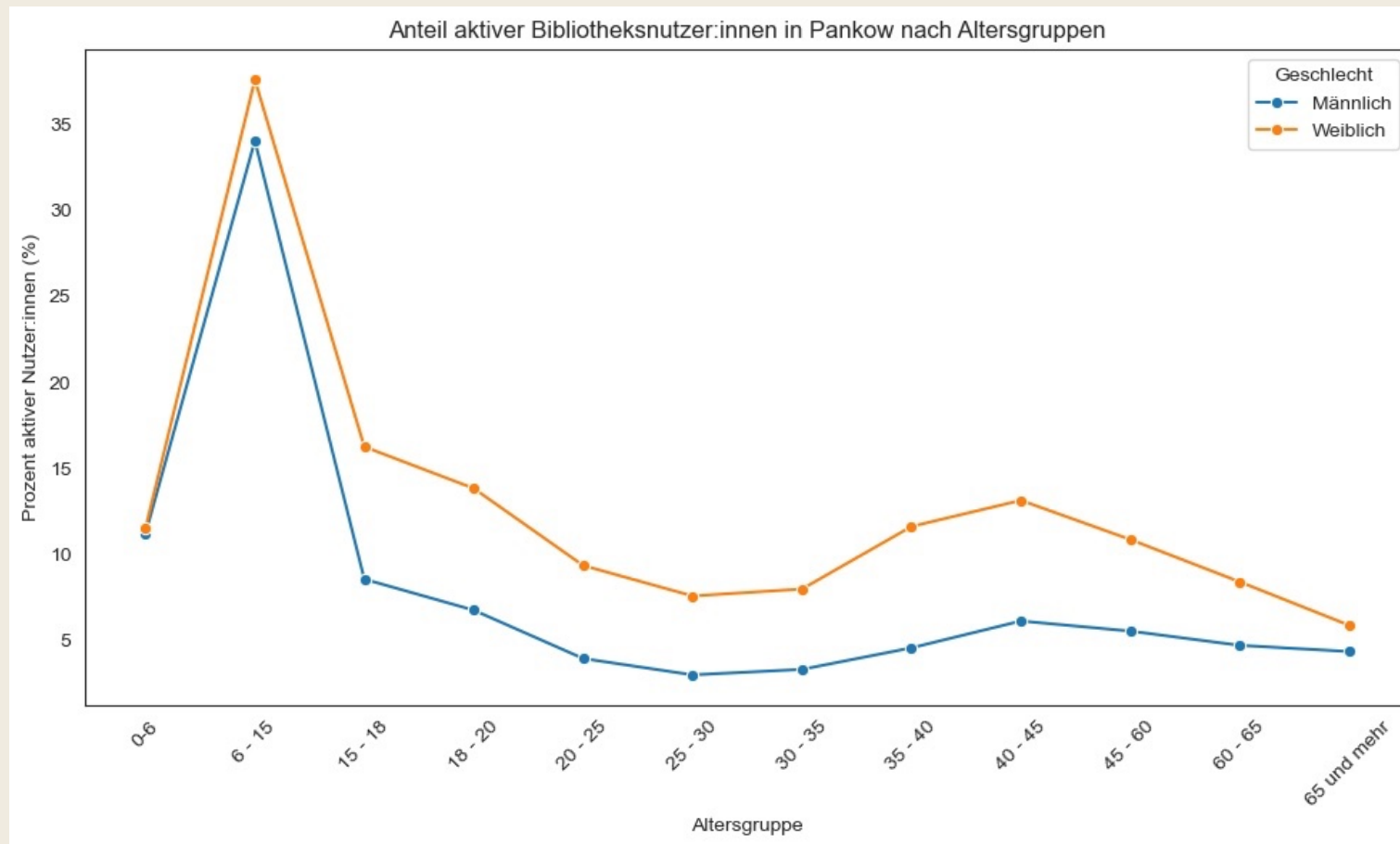- Collection using
- Acquisition and weeding
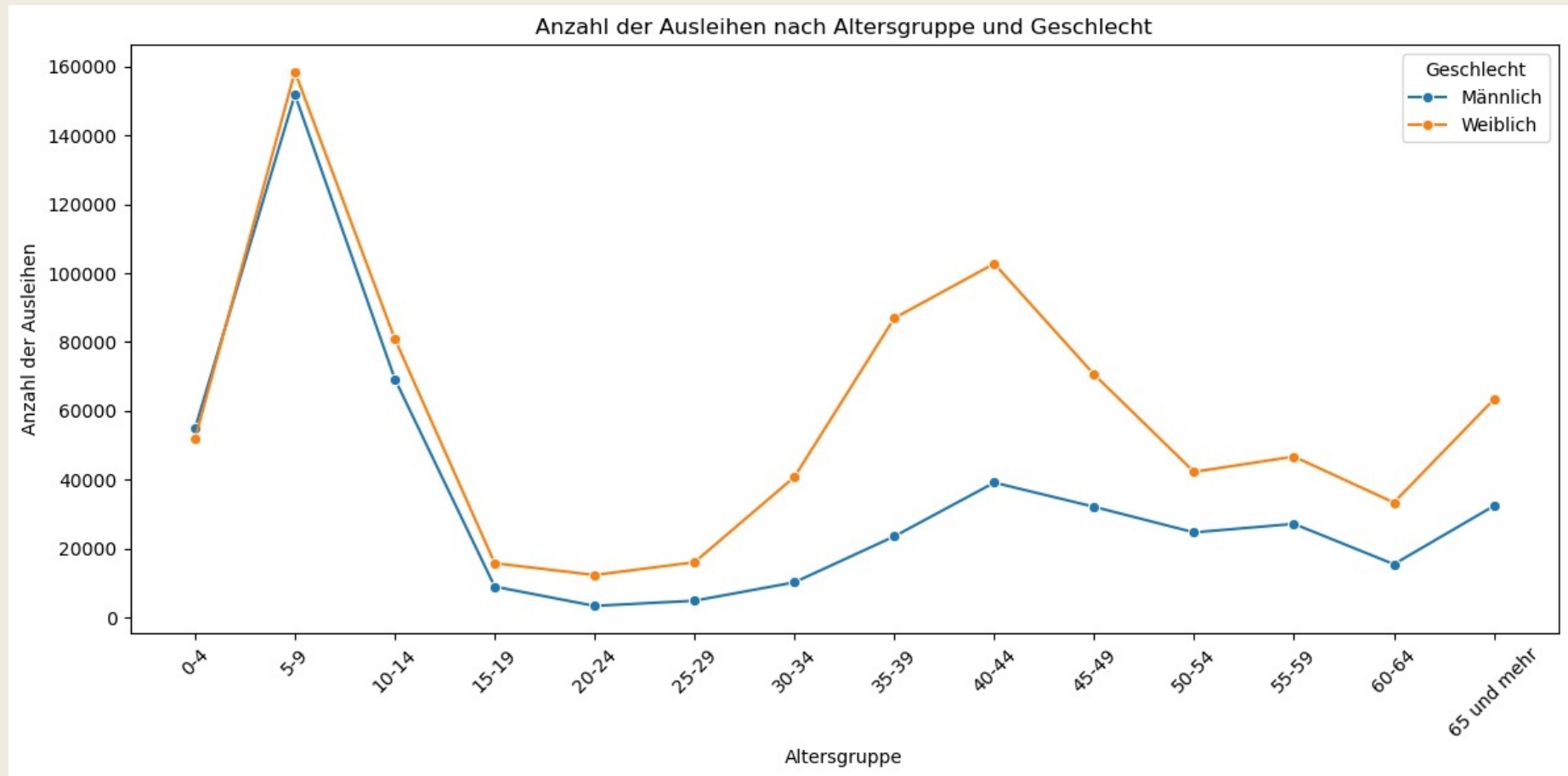- Mapping

Do the people in Pankow use libraries equally?

Do men and women use libraries equally?

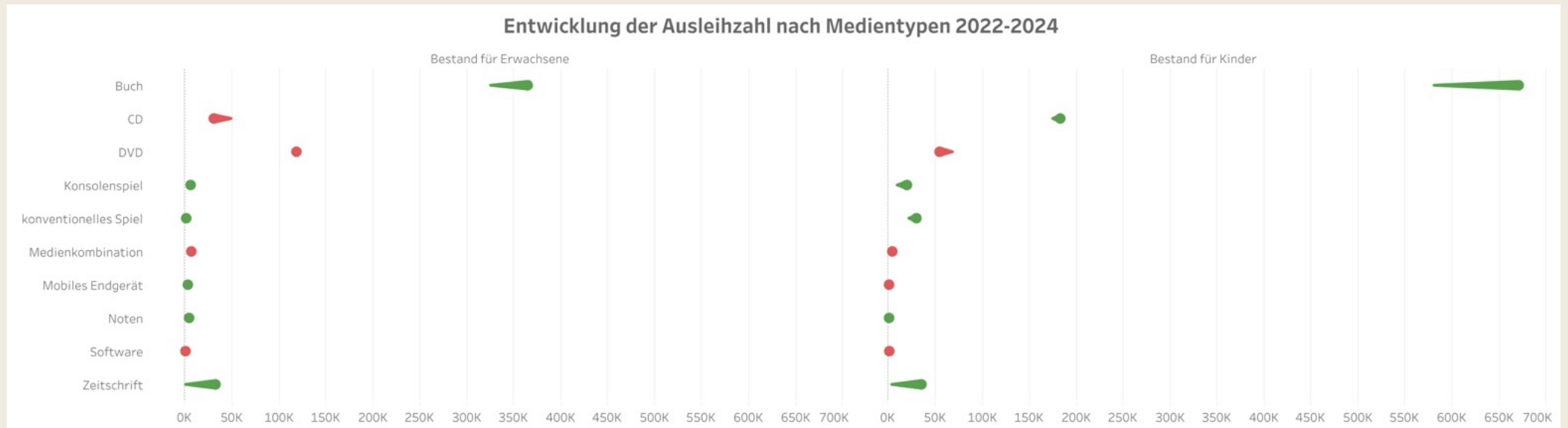Anteil aktiver Bibliotheksnutzer:innen in Pankow nach Altersgruppen

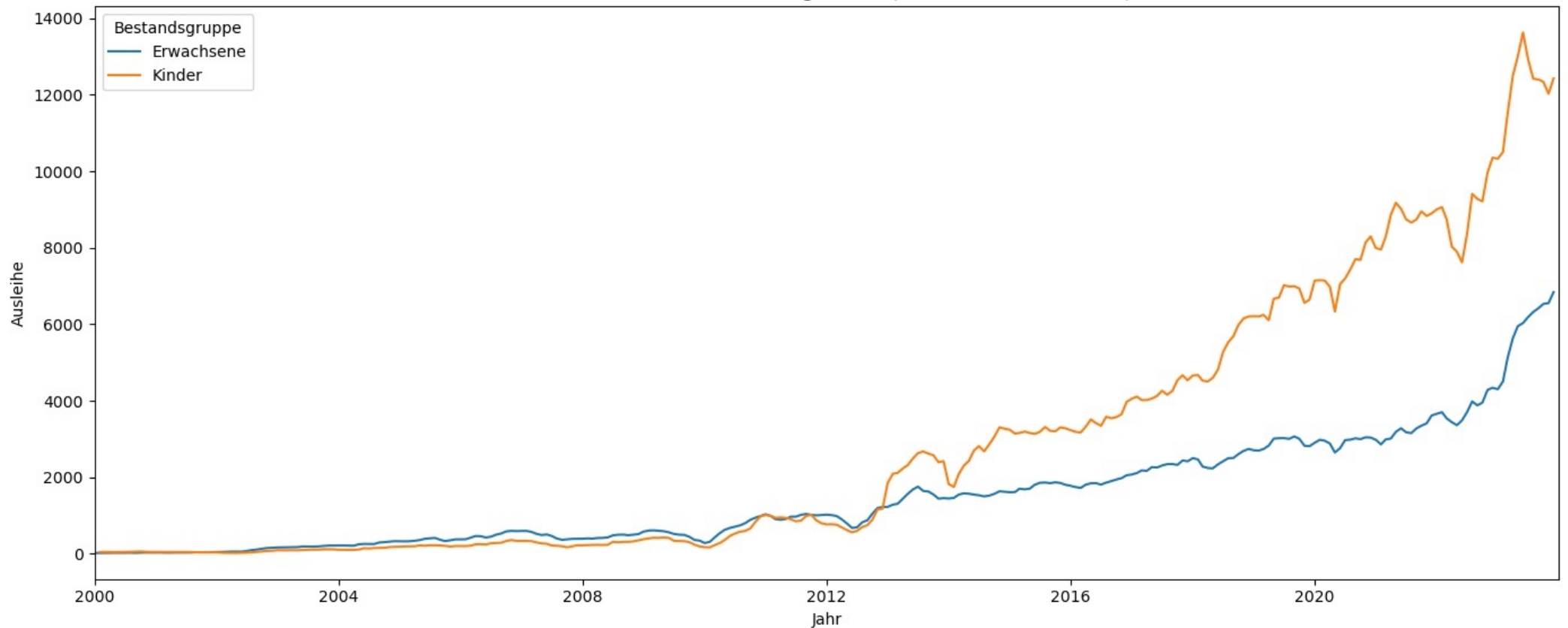# How do men and women use libraries?

How are media types performing in total?
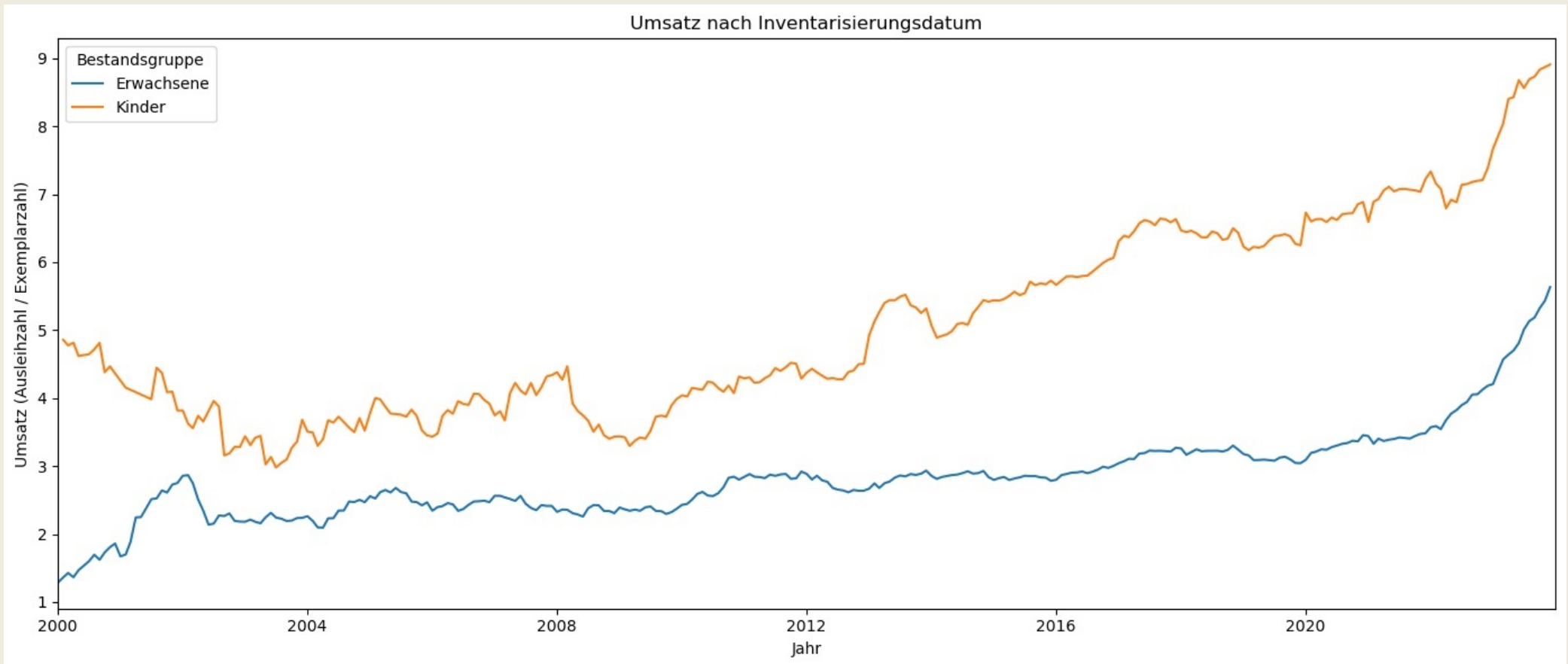

Entwicklung der Ausleihzahl nach Medientypen 2022-2024
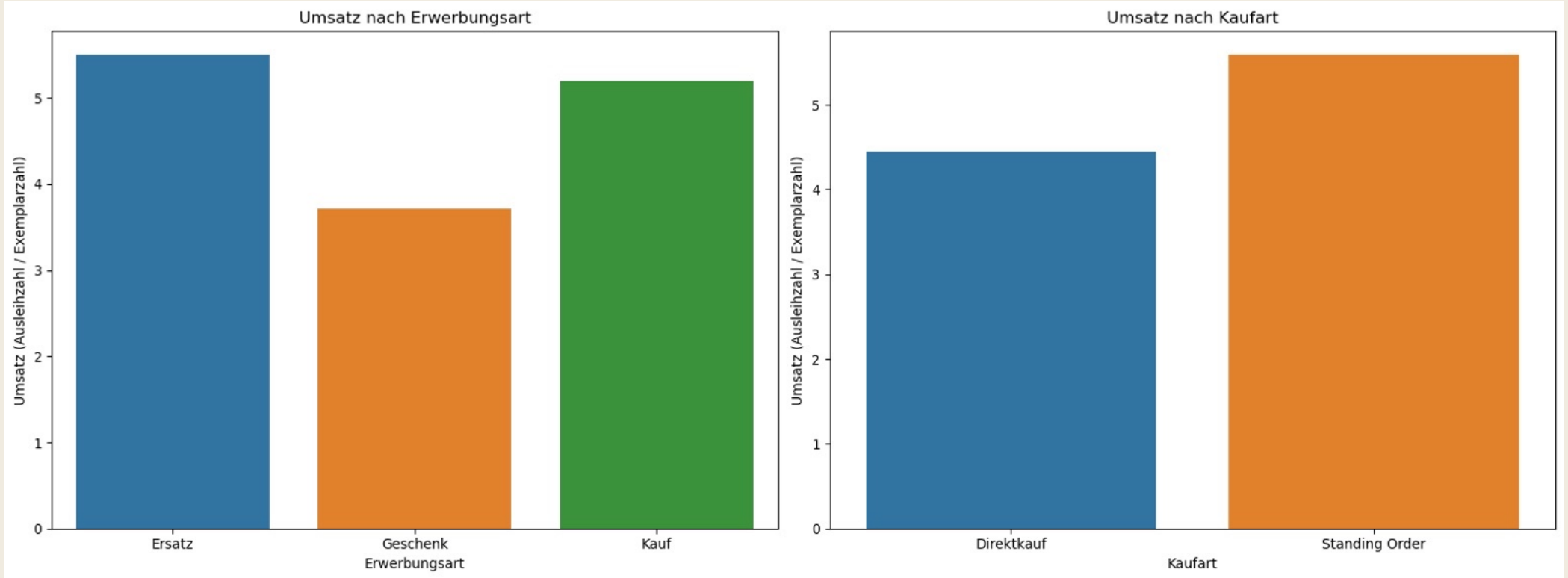
How old can the collection be?

Ausleihe nach Inventarisierungsdatum (12-Monats-Durchschnitt)

How old can the collection be? Really?

Umsatz nach Inventarisierungsdatum

What is the best way to purchase media?

Where are the users?
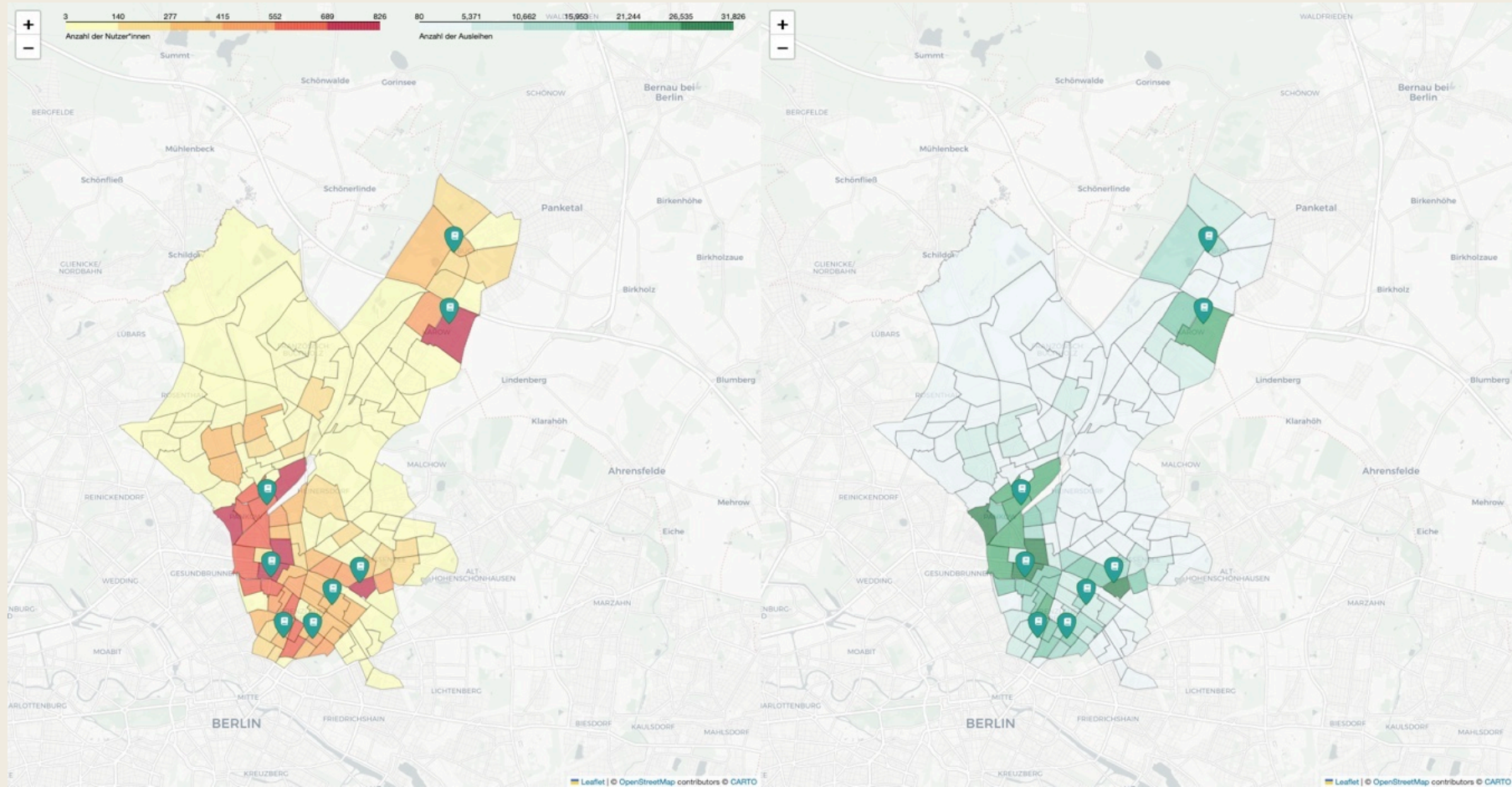
6. KPI for collection management

$$\text{Turnover} = \frac{\text{Number of loans}}{\text{Number of media items}}$$

- Non-fiction books: 3-5
- Fiction books: 4-7
- Children's books: 5-9
- Non books: 10-20

6. KPI for collection management

$$\text{Activation Rate} = \left(\frac{\text{Number of items with} \geq 1 \text{ loan}}{\text{Total number of items}} \right) \times 100$$

- Central libraries in large cities: at least 75%

- Medium-sized and small libraries: at least 90%

- Each individual collection group: at least 50%

6. KPI for collection management

$$\text{Efficiency} = \frac{\dfrac{\text{Loans}_{sub}}{\text{Loans}_{total}}}{\dfrac{\text{Collection}_{sub}}{\text{Collection}_{total}}}$$

- **Efficiency ≈ 1**: The sub-collection is used as often as the average for the entire library.
- **Efficiency < 1**: The sub-collection is used less than average for the entire library

  => Reduce the sub-collection.

- **Efficiency > 1**: The sub-collection is used more than average for the entire library

  => Increase the sub-collection.
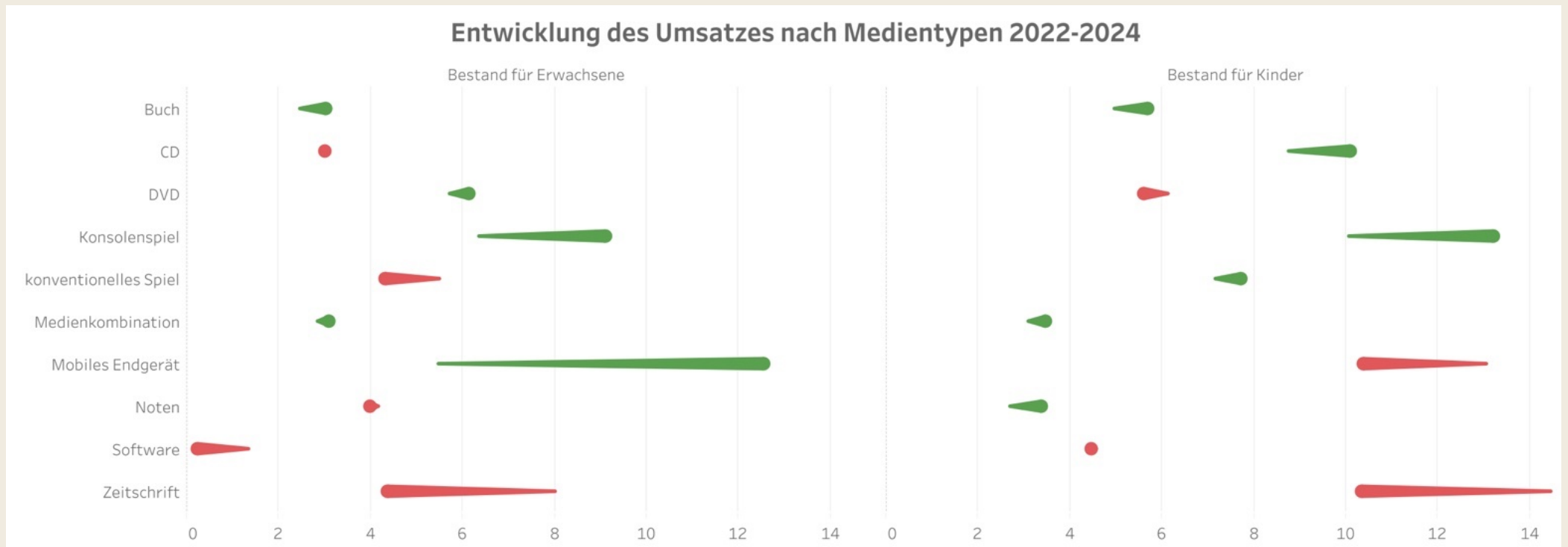
6. Cost accounting for the Senate of Berlin

Cost accounting

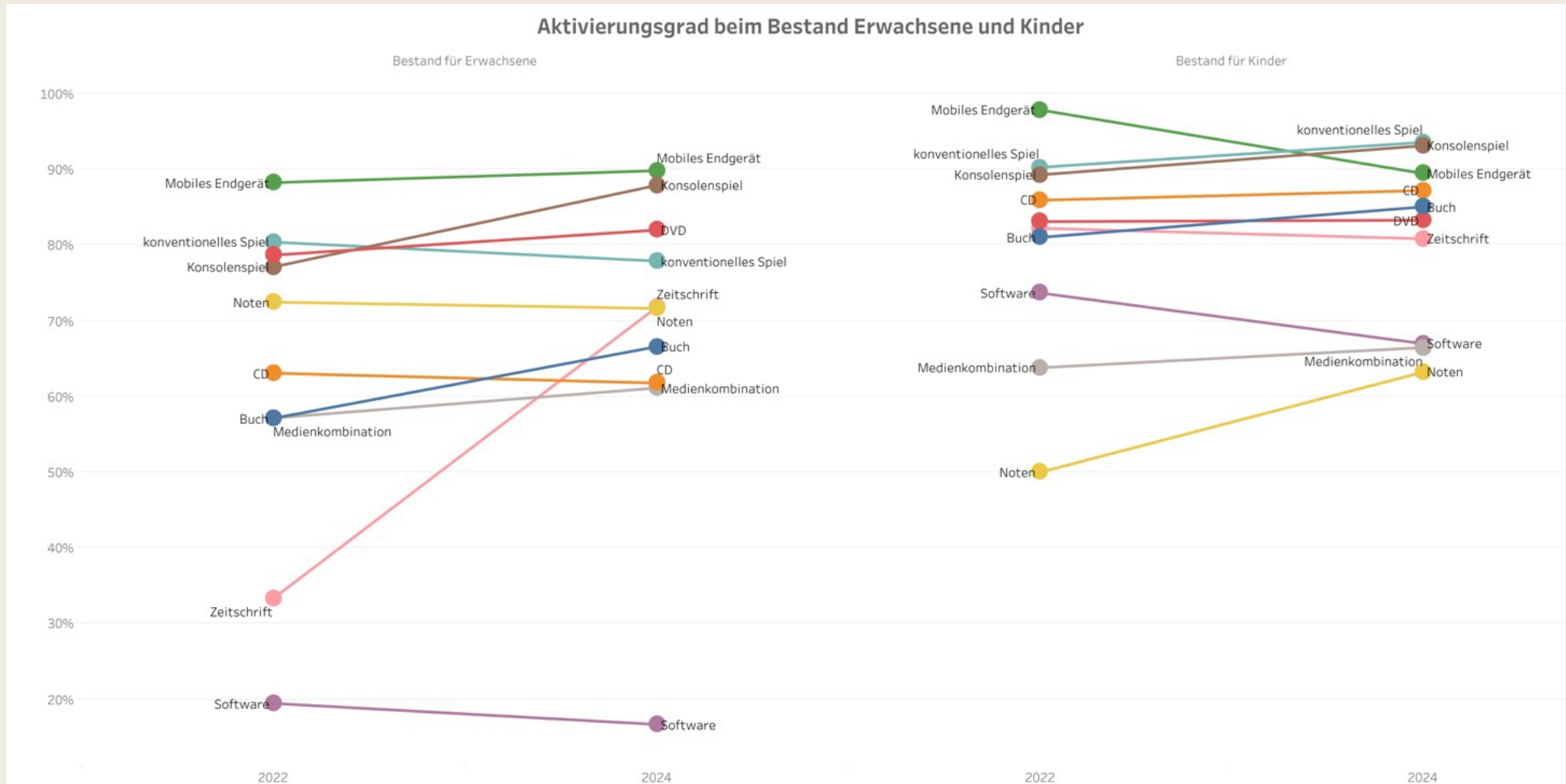- Library Circulation

- Library Visits

- Library Event Participants

- Trainee

Turnover Rate: What media type is successful?

Entwicklung des Umsatzes nach Medientypen 2022-2024

Activation Rate: How many items were borrowed at least one?

Aktivierungsgrad beim Bestand Erwachsene und Kinder

Efficiency: Are offer and demand matching?

Effizienz nach Sachgruppe (MTC=1, Erwachsene)

7.
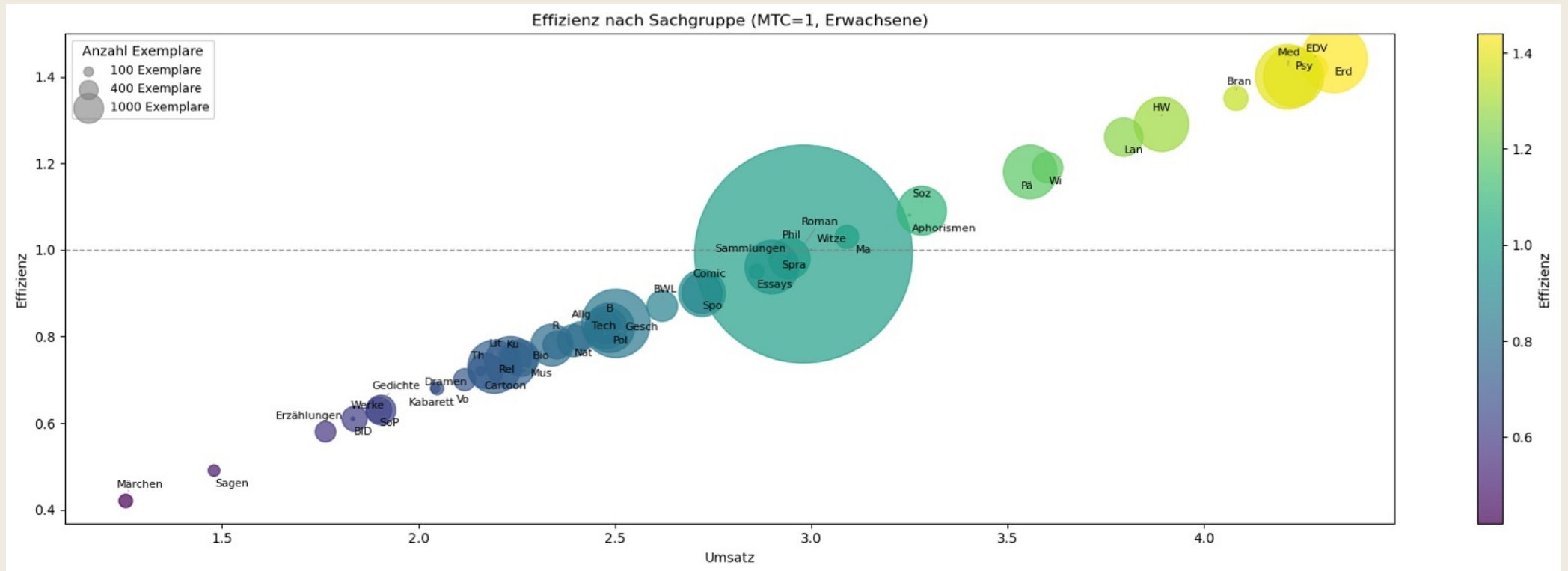
Dashboard Stadtbibliothek Pankow
Kostenleistungsrechnung 2025 vs. 2024

Entleihungen	Besucher*innen	Teilnehmer*innen	Azubis & Praktikant*innen
2025: 953K	**2025: 665K**	**2025: 67K**	**2025: 166**
2024: 1.640K	2024: 970K	2024: 106K	2024: 262

7.

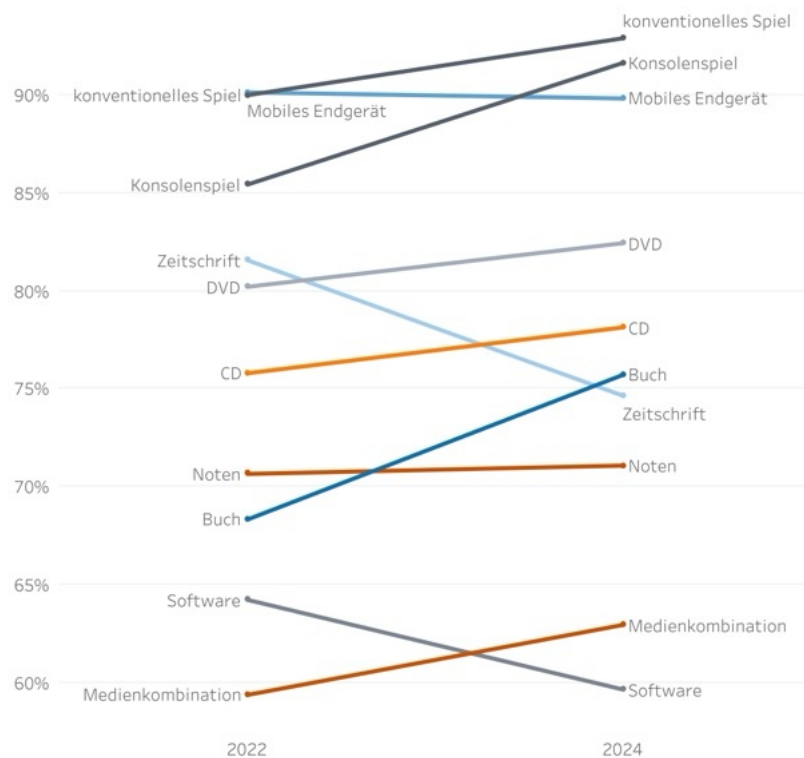## Dashboard Stadtbibliothek Pankow
Bestand 2024 vs. 2022

Aktivierung
2024: 74,57%
2022: 68,77%
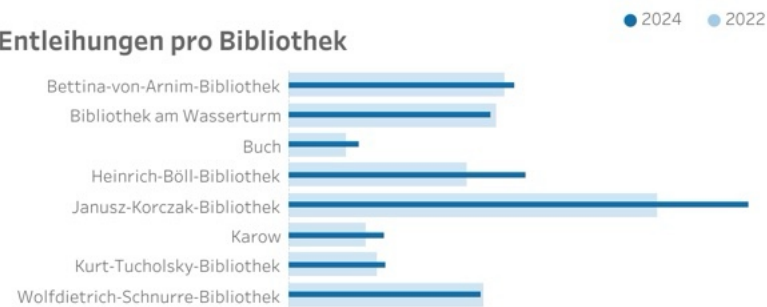
Entleihungen
2024: 1.577K
2022: 1.387K

Umsatz
2024: 4,77
2022: 4,08

Aktivierungsgrad

konventionelles Spiel
Konsolenspiel
Mobiles Endgerät
konventionelles Spiel
Mobiles Endgerät
90%
Konsolenspiel
85%
Zeitschrift
DVD
DVD
80%
CD
CD
Buch
75%
Zeitschrift
Noten
Noten
70%
Buch
Software
65%
Medienkombination
60%
Medienkombination
Software

2022 · 2024

Entleihungen pro Bibliothek

● 2024 ● 2022

Bettina-von-Arnim-Bibliothek
Bibliothek am Wasserturm
Buch
Heinrich-Böll-Bibliothek
Janusz-Korczak-Bibliothek
Karow
Kurt-Tucholsky-Bibliothek
Wolfdietrich-Schnurre-Bibliothek

Umsatz

Bestand Erwachsene · Bestand Kinder

Buch
CD
DVD
Konsolenspiel
konventionelles Spiel
Medienkombination
Mobiles Endgerät
Noten
Software
Zeitschrift

0 · 5 · 10 · 0 · 5 · 10

8. Recommandations

- **Use data for decisions**: Monitor KPIs with dashboards to guide strategy.

- **Optimize the collection**: Expand strong areas, reduce weak ones.

- **Focus on users needs**: Adapt services to demographics and spatial patterns.

- **Grow sustainably**: Align resources with evidence and user needs.

Thank you for your attention !

Do you have any questions?