Who populates Japanese Visual Media?

A census of fictional characters based on fan-created data
Outline of the presentation

1. Introduction: A census of fictional characters
2. Methodology: The Japanese Visual Media Graph
3. Results: Who populates Anime? Considering the Anime Characters Database
4. Conclusions
Introduction: A census of fictional characters
Definition: The Census

- “The role of the population and housing census is to collect, process and disseminate such small area detailed statistics on population, its composition, characteristics, spatial distribution and organization (families and households).” (United Nations 2008, 7)

- The census serves as a basis for evidence-based policy and decision making, and plays an essential role in public administration, in all elements of the national statistical system, including the economic and social components, and as a benchmark for research, analysis and projection (Ibid., 5-6)
Background: The Virtual Census of Videogame Characters (Williams et al. 2009)

- “Measuring the imbalances that exist on the screen can tell us what imbalances exist in social identity formation, social power and policy formation in daily life.” (Williams et al. 2009, 819)

- “The results show a systematic over-representation of males, white and adults and a systematic under-representation of females, Hispanics, Native Americans, children and the elderly” (Ibid., 815)
A recent update of the study (Harrisson et al. 2020) suggests some change:

“similarly to the 2009 study, most characters proportionally are White, male, and adult.” (Harrisson et al. 2020, 2)

“the overall proportion of female characters has nearly doubled from 13% in 2005 to 22% in 2017” (ibid.)

Moving beyond games and beyond the U.S.
A census of fictional characters in (Japanese) visual media

- Who populates Japanese visual media (jvm)?
- What does the fictional population of jvm represent?
- Can we move beyond representation?
Methodology: The Japanese Visual Media Graph
Introducing the JVMG project

- Databases by enthusiast communities are the *go to resource for checking information*

- **Japanese Visual Media Graph (JVMG) project**

- **Project aim:** Make these databases available for *large-scale quantitative research, in collab. with the communities*

- Funded by the **German Research Foundation’s (Deutsche Forschungsgemeinschaft) e-Research Technologies program**
Example enthusiast communities & statistics

<table>
<thead>
<tr>
<th>The Visual Novel Database</th>
<th>Visual Novel Works</th>
<th>Unique Releases</th>
<th>Characters</th>
<th>Descriptive Work Tags</th>
<th>Descriptive Character Tags</th>
<th>Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28,000</td>
<td>73,000</td>
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<td>31,000</td>
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<tr>
<th>AnimeClick</th>
<th>Anime</th>
<th>Manga</th>
<th>Characters</th>
<th>Related Works</th>
<th>Authors</th>
<th>Other Staff</th>
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<tbody>
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<td>11,000</td>
<td>102,000</td>
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<th>Works</th>
<th>Character Relations</th>
<th>Descriptive Character Tags</th>
<th>Descriptive Work Tags</th>
<th>Voice Actors</th>
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Results: Who populates Anime? Considering the Anime Characters Database
Distribution of all* ACDB characters by age

* Excluding characters with no publication year.
Distribution of all* ACDB characters by age

* Excluding characters with no publication year.
Distribution of all ACDB characters by gender

- Female: 60,000
- Male: 40,000
- Not Applicable: 0
- Unknown / Ambiguous: 100
- Androgynous: 100
- None: 0
- Many: 0

Number of characters vs. Gender
Distribution of all ACDB characters by gender

Graph showing the distribution of ACDB characters by gender with bars for female, male, and unknown/ambiguous categories. The y-axis represents the number of characters, and the x-axis represents different categories.

Graph on the right shows the population and sex ratio trends from 1920 to 2020. It includes data from the 2020 Census and preliminary results of the 2020 Population and Households Census. The graph indicates a downward trend in the sex ratio.
Distribution of all ACDB characters by gender

- Female: 60,000 characters
- Male: 40,000 characters
- Not Applicable: 10,000 characters
- Unknown / Ambiguous: 5,000 characters

Further breakdown:
- All characters, male: 85.23%
- All characters, female: 14.77%
- Primary characters, male: 89.55%
- Primary characters, female: 10.45%
- Secondary characters, male: 85.47%
- Secondary characters, female: 14.65%
Distribution of all ACDB characters by age and year
Distribution of all ACDB characters by age and year

- Adult
- Ageless
- Child
- Not Applicable
- Senior
- Teen

Number of characters vs. Year

Year range: 1970 to 2020
Distribution of all ACDB characters by age and year

- **Adult**
- **Ageless**
- **Child**
- **Not Applicable**
- **Senior**
- **Teen**

![Graph showing the distribution of ACDB characters by age and year from 1970 to 2020.](image-url)
Distribution of all ACDB characters by gender and year
Distribution of all ACDB characters by gender and year

- Androgynous
- Female
- Male
- Many
- None
- Not Applicable
- Unknown / Ambiguous

Number of characters

Year

Distribution of all ACDB characters by gender and year

- Androgynous
- Female
- Male
- Many
- None
- Not Applicable
- Unknown / Ambiguous
Distribution of ACDB characters by gender, age and year.
Distribution of ACDB characters by gender, age and year

- Gender
  - Female
  - Male

- Age
  - Adult
  - Teen

Number of characters vs. Year from 1970 to 2020.
Distribution of ACDB characters by gender, age and year
Distribution of ACDB characters* by media type

* Removed characters with publication year 2021 and/or with missing media type.
Distribution of ACDB characters* by media type

* Removed characters with publication year 2021 and/or with missing media type.
The effect of h-games
The anime and video games population

Number of characters

Gender
- Female
- Male
Age
- Adult
- Teen

Year

The anime and video games population
The anime and video games population

- Gender
  - Female
  - Male
- Age
  - Adult
  - Teen

Number of characters

Year

The anime population: gender
The anime population: gender

Number of characters

Year


Female
Male
The anime population: age

Number of characters

Year


Adult
Teen

[Graph showing the increase in number of characters over time with two lines representing adult and teen demographics]
The anime population: gender and age
The anime population: gender and age

The graph shows the number of characters per year for different gender and age categories. The categories are:
- Gender (Female and Male)
- Age (Adult and Teen)

The data is presented from 1970 to 2020, with a notable increase in the number of characters in the late 2000s and early 2010s.
The anime population: gender and age
The video game population: gender

Number of characters vs Year

- Female
- Male
The video game population: gender

Year


Number of characters

Female
Male
The video game population: age
The video game population: gender and age
The video game population: gender and age
Conclusions
Q1: Who populates Japanese Visual Media?

- Teen female characters become dominant from 2010
- Gender and age group diversity is low

Q2: What does the fictional population represent?

- “Reality” vs. Taste vs. Genre conventions vs. …

Main finding: A possible shift in Japanese visual media content (anime, video games) occurring around 2010
Q3: Moving beyond representation: What does the analysis imply?

- Changes in the **content** being produced
  - Potential influence of “otaku specific media”
- Changes in the **focus of the community** creating the database
  - The example of the video games character population
- An **interplay of both** of the above
  - Further evidence from smaller media type categories (e.g. OVA vs movie populations)
Thank you for your attention!

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Visit our project website: https://jvmg.iuk.hdm-stuttgart.de/