



The Semiotics of Toilet Signs

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Abstract. Various types of signs for public restrooms are pervasive in our society. In addition to indicating gender classification, there are cultural differences among regions and communities in the representation of these signs. There have been several studies on toilet signs that possess many aspects of academic investigation, including social study, cognitive analysis, and gender research. To investigate the academic issues surrounding public restroom iconography, - and to understand how the signs convey the designer's intent to citizens, a database of toilet signs has been constructed. More than 550 items are stored in this database, and published on the Internet. They are categorized into several groups by a method similar to a folksonomy. This paper describes the results of an analysis of the database, and what types of toilet sign trends are revealed by the study.

Keywords: Toilet signs · Cultural differences · Consumer-generated database

1 Introduction

Signs for public restrooms are used everywhere in our society, and public toilets are categorized into three types: male, female, and genderless/multipurpose. Thus, each kind of sign represents the gender of that restroom's users. Many toilet signs use human-shaped pictograms to indicate gender. However, various symbols, characters, and other shapes are also used to denote gender. Hence, we can discuss the variety of these representations in order to research impressions of the designs used for public signs. Also, because restroom signs are seen worldwide, there remains room for cultural studies of these signs, as some differences are observable between regions.

2 Related Work

There have been some previous studies on toilet signs. The website Sensemaya analyzed the semiotics of toilet signs¹ in detail. It divided the signs into several groups, according to their representations of gender. Differences in genital and body shapes, comparison of urination poses, and coital metaphors are the critical factors defining

¹ Several blog articles describe the existence of an excellent analysis of the semiotics of toilet signs, performed by Sensemaya. However, the report was deleted as of November 2018, and cannot be accessed online.

each group. Genders are indicated by referencing physical possessions, the direct depiction of male and female forms, arbitrary or conventional symbolism, markers of social positions, and, occasionally, photographs.

Chen and Sie [1] argued that the manner in which design factors are employed affects the reaction time for identifying toilet signs. They conducted experiments to understand the factors influencing the speed of translating information from a sign into an appropriate response. This was achieved by displaying 36 toilet signs with modifications to three elements, and measuring the reaction time of all participants.

Johannessen collected Danish toilet signs [2], and Pantouvaki also discussed the social semiotics of toilet signs in Greece [3]. Jie analyzed the application of and problems with bilingual public signs by focusing on toilet signs in China [4].

As these researchers have shown, studies on toilet signs include many standard aspects of academic investigations, including social study, cognitive analysis, and gender research.

3 Toilet Signs Database

To study the topics mentioned above, I started collecting photographs of toilet signs in August 2016. Furthermore, a community of persons wishing to receive efficient information on this topic was established in September 2017. Collected data are published daily, with my brief commentary. Although there are similar websites² and public discussion groups on social networking services (SNS)³, our database has some advantages in that all items are stored in the database, along with my messages. Additionally, much of our data are posted by community members from around the world.

As of January 26, 2019, 612 toilet signs have been collected, and more than 550 signs are available to the public via the Internet. These data are posted from 49 countries and regions. As most group members are Japanese, more than half of the displayed data are toilet signs from Japan. However, some members have frequent opportunities to go abroad for business trips, and sometimes for sightseeing. Therefore, if they find an attractive toilet sign while overseas, they can take a picture and post it via the Internet.

There have been 108 contributors thus far. Although I am the top contributor, approximately two-thirds of items were contributed by other members. Additionally, fifty-three members have provided toilet sign information more than twice. Table 1 shows the top ten contributors.

One of the significant features of our database is that every item utilizes geographical information: for example, the place the photograph was taken, and the name of the facility where the toilet is located. Figure 1 shows the locations of all the signs in our database. The left part of Fig. 2 illustrates a selection of regions throughout Japan,

² Tweet from the toilet marks: <http://1st.geocities.jp/toiletmark/>;
TOILETSIGNS: <https://toiletsigns.wordpress.com/>.

³ Washroom of the day (Public Facebook group): <https://www.facebook.com/groups/washroom.of.the.day/>.

Table 1. Top Ten Contributors

Contributor	Number of Items	Contributor	Number of Items
J.I.	164	A.H.	19
T.O.	42	H.S.	17
S.Y.	35	R.S.	16
K.K.	26	M.M.	16
M.K.	23	R.S.	15



Fig. 1. A world map showing the locations of toilet signs recorded in our database

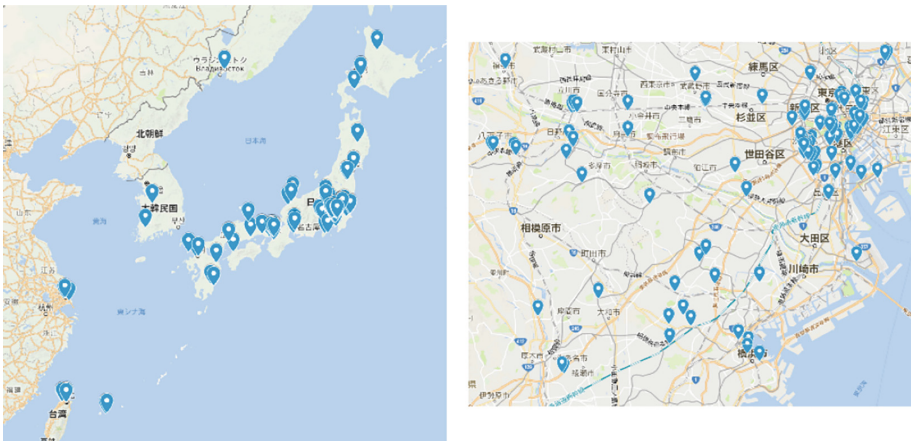


Fig. 2. Left: a selection of regions throughout Japan; Right: a magnified area surrounding the Tokyo metropolitan region

ラベル

♂♀ LGBT エレキ カラフル カワイイ キ
 ャラクター シンプル のれん ハイ
 テク **ピクトさん** へたうま メッセ
 ージ もじもじ ラージサイズ ローカル
 表記 意味不明 擬人化 駆け込み 手書き 埴輪
紳士淑女 赤青 染色体 線人間 多目的
 駄洒落 男女兼用 地方文化 点字 殿と
 姫 番外編 飛行機 変なモノ 便座 方向
 指示 帽子 立体

Fig. 3. A tag-cloud created from all labels in the database, indicating that the most popular category of signs is the human-shaped pictogram



Fig. 4. Typical “weird” toilet signs

while the right part of this figure indicates a magnified area around the Tokyo metropolitan region.

Each item in our database is also provided with a few tags, enabling categorization by a method similar to a folksonomy. Figure 3 shows a tag-cloud created from all the labels in the database, indicating that the most common category of signs is the human-shaped pictogram. An analysis based on access frequency disclosed that the most popular items are those belonging to the category labeled “weird.” Figure 4 contains typical signs from this category.



Fig. 5. Typical “squirming” toilet signs



Fig. 6. Typical “large” toilet signs

The signs employing human-shaped pictograms are further divided into several subcategories: squirming, large, electric, and come-here types. Figures 5, 6, 7 and 8 show typical signs belonging to these subcategories.



Fig. 7. Typical “electric” toilet signs



Fig. 8. Typical “come-here” toilet signs

Particularly in Japan and neighboring countries, it is possible to recognize the varying colors used to distinguish between the male and female genders. Regularly, blue is used to indicate signs for males, while red is used for females. However, the boundaries

between areas where blue and red colors are employed to distinguish the genders, and areas where colors for both genders are identical, are ambiguous.

Specifying genders using blue and red colors is very popular in Japan. Such gender separation by color is also seen in Taiwan, Korea, and China. In Southeast Asia, the frequency of encountering such classifications is decreasing. Furthermore, we seldom see such distinctions in the rest of the world. Discovering the boundaries of areas where genders are separated by color remains a topic for future work.

4 Categorization of Toilet Signs

Figure 9 shows a categorization of toilet signs. They are roughly organized into three major classes: human-shaped, portions, and words. Note that these three classes aren't clearly distinguished: that is, a combination of two or three items from different classes often appears on a single sign.



Fig. 9. A categorization of toilet signs

4.1 Human-Shaped Signs

Human-shaped signs are categorized into three subcategories: simple shapes, characters, and pictograms.

On simple shaped signs, the human form consists of a circle and a triangle, where the circle represents a head, and the triangle represents a body. An interesting thing to note is the direction the triangle faces. In most cases, the combination of a circle and an upward-facing triangle represents a female, and a circle with a downward-facing triangle represents a male (Fig. 10).



Fig. 10. A typical circle-and-triangle toilet sign

The toilet signs represented by certain characters are also divided into several patterns. For instance, if the institution where the toilet is located has some relation to historical or famous persons, such personas are often used as guides to the restroom (Fig. 11).



Fig. 11. Typical examples of toilet signs employing local personas Left: a toilet sign utilizing ancient Japanese figures; Right: representative characters from a famous Japanese cartoon.

As mentioned in the previous section, the pictogram signs have several subcategories. Although the figures may be slightly different, these types of toilet signs are quite common all over the world.

4.2 Portion-Type Signs

Several portions of objects indicating gender difference frequently appear in toilet signs. The major subcategories are human body parts, accessories, and combinations of the two.

Genitals are often the typical human body portions placed on toilet signs as a means of distinguishing male and female restrooms. In some cases, they are drawn humorously, as shown in Fig. 4. Furthermore, mustaches and lips are common body parts used to express gender differences (Fig. 12).



Fig. 12. Typical “mustache and lips” toilet signs

Mustaches and lips are frequently combined with hats or ribbons. The right side of Fig. 12 illustrates such a case. Hats, ribbons, glasses, pearl necklaces, sticks, and umbrellas often appear in toilet signs.

4.3 Words and Messages

In these cases, the location of the toilet is indicated by a written word, or with textual messages. This type of toilet sign is difficult to manage, especially for foreign people who cannot discern the toilet’s location if directions are written in only the local language (Fig. 13).

If directions are written in both the local language and in English, few problems would arise. However, especially in very rural areas, many toilet signs are found that lack English notation. This is not only the case in rural areas of Japan, as similar instances can occur anywhere in the world.



Fig. 13. The directions are written in only the local language (“zeny” and “muzi”). A person would not understand which to enter if signs using standard pictograms were not appended

5 Conclusions and Future Work

This study established a database of toilet signs in collaboration with more than one hundred contributors. They took pictures of toilet signs from all over the world, and sent them to an online community. The result is a collection of over five hundred records.

A unique feature of the database is that it stores not only photographs but also the name of the institution where the sign is located and its exact location. Thus, each record can be added to a world map so that anyone can visit and confirm the information if they wish.

Additionally, hierarchical categories are proposed in this paper. The categories were derived only from the collections in our database. Therefore, confirmation of their adequacy and applicability remains a topic for future work.

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