# Proposal for Emoji: TOOTHBRUSH

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Emoji Name: TOOTHBRUSH Keywords: CLEAN | TEETH | DENTAL | BATHROOM | BRUSH | HYGIENE | ROUTINE Sort Order: in the Medical category, after PILL

Reference emoji: TUMBLER GLASS



Sample representation of a toothbrush emoji by Anna Zeng. Free for use in conjunction with this proposal.

Revised 2019-10-04: This proposal was slightly updated only to include the additional image which was used in the emoji candidate chart.

#### Abstract

This proposal requests the addition of a TOOTHBRUSH to the Unicode emoji library.

Bristle-style toothbrushes are used every day, twice a day or more by people all over the world, and yet there is no emoji to represent it. Brushing teeth regularly prevents tooth decay and gum disease — which are linked to heart disease and Alzheimer's — and is an essential part of oral health care in both developed and developing countries.<sup>1</sup> It is also an integral part of millions of people's daily routines.

#### Introduction

<sup>&</sup>lt;sup>1</sup> https://www.perio.org/consumer/gum-disease-and-heart-disease

In 2016, toothbrush sales accounted for US\$11.9 billion<sup>2</sup> in sales worldwide, at US\$1-2 per manual toothbrush<sup>3</sup> (and averaging US \$55 per electric toothbrush). That's up to 8 billion toothbrushes sold worldwide each year.

Dentists and other health care professionals around the world encourage people to brush their teeth at least twice a day to protect their teeth and maintain their oral health, which is an important component of overall health and quality of life. Poor oral health can affect a person's ability to bite, chew, smile, speak, and even their psychological well being.

The CDC National Center for Health Statistics finds that approximately 91% of adults have dental caries, and by the time they reach 65 years old, 96% of Americans have tooth decay.<sup>4</sup> Approximately 1 in 5 children have untreated tooth decay (also known as cavities or caries), making it the most common chronic childhood disease. Additionally, as brushing your teeth is a preventative health act, 1.4 percent of all emergency room visits are because of preventable dental issues.<sup>5</sup> Importantly studies also note that poor oral health disproportionately affects poor and disadvantaged population groups.

The bristle-style toothbrush commonly associated with the image of a toothbrush has a long history. It is believed to have originated in China during the Tang Dynasty (619-907)<sup>6</sup> where bristles from pigs hair were affixed to bone or bamboo handles<sup>7</sup>. Modern manual toothbrushes are typically made with nylon bristles and plastic handles, but the basic design has remained constant over the centuries.

<sup>&</sup>lt;sup>2</sup> Euromonitor International. (2016, February 1). Oral Care: Fusing Tradition with Beauty and Hi-Technology. Retrieved from Euromonitor Passport database.

<sup>&</sup>lt;sup>3</sup> Euromonitor International. (2015, April 17). *Electric Toothbrushes Thrive in Developed Markets*. Retrieved from Euromonitor Passport database.

<sup>&</sup>lt;sup>4</sup> https://www.today.com/health/most-us-have-tooth-decay-study-finds-t20781

<sup>&</sup>lt;sup>5</sup> https://www.nidcr.nih.gov/research/data-statistics/dental-caries/adults

<sup>&</sup>lt;sup>6</sup> https://en.wikipedia.org/wiki/Toothbrush

<sup>&</sup>lt;sup>7</sup> https://www.colgate.com/en-us/oral-health/basics/brushing-and-flossing/history-of-toothbrushes-and-toothpastes



An 18th Century toothbrush made of wood and horsehair, supposedly owned by Napoleon Bonaparte. Image from <u>Wikipedia</u>.

Looking ahead, there is continued growth in electric toothbrushes<sup>8</sup>, with new companies functionally designing products to better guide every day habits — including inspiring products that are pleasant to use every day, without hassles like wires or chargers.



Some modern electric toothbrushes have adapted the same rough design of the 18th Century original, while others have taken a different approach. Image from <u>Target</u>.

<sup>&</sup>lt;sup>8</sup> Euromonitor International. (2015, April 17). *Electric Toothbrushes Thrive in Developed Markets*. Retrieved from Euromonitor Passport database.

This style of toothbrush, a handle with bristles on the end, is used almost universally across the world. There are still some pockets of cultures that continue to use softened sticks, such as a miswak, a teeth-cleaning twig made from the Salvadora persica tree.



Boys brush their teeth in Chajul, a rural village in Guatemala. Photo from Project 32.



A man brushes his teeth with a miswak, popular in many Muslim and African countries. Photo from <u>Mother Nature Network</u>.

Given the toothbrushes broad use across the world, and its significance in public health, a toothbrush emoji is an important step to enhancing the conversations people can have through emoji.

# 3. Selection Factors — Inclusion

#### A. Compatibility:

There is currently no representation of a toothbrush on major digital platforms. However, it is represented in a number of additional "sticker" packs available on platforms like iMessage and Facebook Messenger. This indicates other platforms' interest in having such an icon available.

## **B. Expected Usage Level**

#### **B1. Frequency**

As per the recommendation on the Unicode page, we are using "tumbler glass" as our reference median emoji.

Google Trends (Web Search) indicates a level of interest in "toothbrush" that is far above that of "tumbler glass," which is already an emoji. Furthermore, searches for "toothbrush" spike at the end and beginning of each year, suggesting it is being talked about and thought about at a high frequency, and interest has been growing rapidly year over year.

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The same is true for Image Searches of "toothbrush" and "tumbler glass."



Google does return more results for "tumbler glass" than it does for "toothbrush."

All Images Shopping Videos About 115,000,000 results (0.56 seconds)		
About 115,000,000 results (0.56 seconds)		
About 115,000,000 results (0.56 seconds)		
All Images Shopping News		

But YouTube has more posts mentioning "toothbrush" than "tumbler glass."

Google	site:youtube.com toothbrush			
	All	Images	Shopping	Videos
	About	3,520,000 re	sults (0.66 seco	onds)
Google	site:youtube.com tumbler glass			
	All	Images	Shopping	News
	About	2,460,000 re	esults (0.99 sec	onds)

Bing also has more search results for "toothbrush" than "tumbler glass."

6	toothbrush						
	All	Shopping	Images	Videos			
	7-20 Of 16,100,000 Results			Any time 👻			
6	tumbler glass						
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In the Google Ngram Viewer, you can see that "toothbrush" appears far more often than "tumbler glass" in Google Books.

# Google Books Ngram Viewer



"Toothbrush" is also a popular hashtag on Instagram, while "tumblerglass" is not.





# **B2. Multiple Usages**

Users are likely to use the toothbrush to refer to the act of brushing their teeth or encouraging someone else to do the same, such as parents reminding their kids to brush their teeth before bed. A toothbrush emoji could also be useful in discussions that relate to dental care, such as booking dentist appointments.

It could also be used to cover aspects of personal hygiene generally, indicating that someone has good personal hygiene, or when paired with emoji like nauseated face indicate the opposite, perhaps an indication of why a date didn't work out the way they'd hoped. Or it could be used to generally indicate cleanliness or freshness, especially when paired with sparkles.

Finally, there may be other uses in broader cultural understandings of the idea of a toothbrush, for example leaving a toothbrush at a romantic partners house can be an indication of a (slightly more) serious commitment or having the brush represent confidence in one's smile in their selfie image or video.

#### **B3.** Use in Sequences

Some common sequences including the toothbrush emoji would be:

Toothbrush + Tooth: Brush your teeth Toothbrush + Sparkles: Cleanliness / freshness Toothbrush + Tooth + Watch: Dentist's appointment

Toothbrush + Health Worker: Dentist

Toothbrush + Nauseated face: Poor personal hygiene

Toothbrush + House: Relationship getting serious.

### **B4. Breaking New Ground**

#### **C. Image Distinctiveness**

The proportions of a toothbrush make for a distinct visual appearance, even in silhouette. There are a number of emoji that share a similar basic shape to a toothbrush, including the closed umbrella ( $\checkmark$ ), carrot ( $\checkmark$ ), spoon ( $\checkmark$ ) and hammer ( $\checkmark$ ). However in shape, colour, and texture, a toothbrush is very visually distinct from these icons.

#### **D.** Completeness

The toothbrush emoji would join other household objects and join a limited set of personal hygiene and bathroom objects such as the toilet ( $\checkmark$ ), shower ( $\checkmark$ ) and bathtub ( $\checkmark$ ) emoji. It would also complement the tooth emoji ( $\neg$ ) that was added to the Unicode 11 standard.

# **E. Frequently Requested**

A number of Twitter messages mention both the #toothbrush and #emoji hashtags and are often included by users expressing their frustration at the lack of a toothbrush emoji. A search for "toothbrush emoji" also returns a similar sentiment, with some even using the specific #toothbrushemoji hashtag. A recent selection of these tweets is included below.





But how am I supposed to express my excitement for my dentist appointment tomorrow if I can't put a toothbrush emoji?

9

6:08 PM - 28 Dec 2017



11

<sup>&</sup>lt;sup>9</sup> <u>https://twitter.com/5SOS\_AmandaBear/status/946276650152529920</u>

<sup>&</sup>lt;sup>10</sup> <u>https://twitter.com/ih8isabelle/status/942544621489373184</u>

<sup>&</sup>lt;sup>11</sup> <u>https://twitter.com/search?q=toothbrush%20emoji</u>



# 4. Selection Factors — Exclusion

#### F. Overly Specific

The overall design of a bristle-based toothbrush remains consistent throughout most cultures worldwide.

#### G. Open Ended

A toothbrush emoji would be a unique addition to the Unicode Standard. It would complement existing bathroom and personal hygiene objects and the tooth emoji added in Unicode 11.

#### H. Already Representable

There is currently no way to represent a toothbrush and no options to present oral health overall.

#### I. Logos, brands, UI icons, signage, specific people, deities

The proposed toothbrush emoji does not represent a specific logo, brand, UI icon, sign, person or deity. Whilst an image of a toothbrush is sometimes used in a variety of logos, its use is not trademarked and likely couldn't be due to the generic nature of the design and its long term existence. Although a number of large companies produce toothbrushes, no single company owns the overall design of even modern electric toothbrushes, and a patent application has been rejected on the grounds of it not acquiring distinctiveness<sup>12</sup>.

<sup>&</sup>lt;sup>12</sup> <u>https://lizerbramlaw.com/2014/11/18/can-toothbrush-be-a-product-design-trademark/</u>

# J. Transient

The visual design of a manual bristle-based toothbrush has remained largely unchanged for more than 1,000 years<sup>13</sup>. Modern toothbrushes still maintain the same basic form and fundamental changes seem unlikely in the near future.

# K. Faulty Comparison

A toothbrush is a unique addition to the Unicode Standard.

# L. Exact Images

The proposed emoji does not require an exact image to be distinguishable. It allows for many variations in colour and style that will still be identifiable given the basic form. The proposed emoji image could be interpreted as a manual brush, or a sleek and modern electric variety.

# **Other Character Properties**

The other character properties are suggested to be defined as follows. General Category: So Canonical Combining Class: 0 Bidirectional Class: ON Decomposition Type: Decomposition Mapping: Numeric Type: Numeric Value: Bidirectional Mirrored: N Unicode 1 Name: ISO Comment: Simple Uppercase Mapping: Simple Lowercase Mapping: Simple Titlecase Mapping:

**Authors**: Callum Ponton, Maya Knell, Jennifer 8. Lee and Samantha Sunne are emoji enthusiasts and fans of hygiene in general. They would like to see more dental related emoji available to promote brushing, flossing, and other good health habits.

<sup>&</sup>lt;sup>13</sup> <u>https://en.wikipedia.org/wiki/Toothbrush</u>