

Proposal to encode the AUTO RICKSHAW emoji

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Introduction



AUTO RICKSHAW
(tuk tuk)

The AUTO RICKSHAW has been an important mode of short-distance conveyance throughout Asia after emerging in Japan and Italy in the middle of the 20th century. This three-wheeler is more abundant than automobiles on the roadways of South Asia, and it is as iconic in New Delhi as the taxi cab is in New York. It is also popular in Cambodia, Indonesia, Myanmar, Thailand, and other regions of Southeast Asia. In Thailand, it colloquially known as a ‘tuk-tuk’, a term that has spread to other countries. In Italy, the original Piaggio Ape is still used for basic transportation and tourism. The practical utility of the auto rickshaw has been recognized beyond Asia. It is used in Ethiopia, Tanzania, Tunisia, and has recently been introduced to Egypt and other African countries.¹ In Europe and North America, electric ‘tuk-tuks’ are emerging in cities as alternatives to taxis. While already integral to the lives of hundreds of millions, the auto rickshaw continues to address the transportation needs of millions more around the globe.

The auto rickshaw is not only a mode of transportation, it is also a symbol of the transformative aspects of transportation and its impact on society, culture, policy, and digital technology:

- *Basic conveyance* The auto rickshaw is a symbol of basic conveyance, akin to the automobile in the western world. A study in the *Harvard Business Review* (2016) on India reports that “[t]hey account for 20% of motorized trips in some cities and provide jobs to tens of thousands of drivers, are inexpensive to buy and operate, and are an elegant (if rickety) solution to the problem of affordable, short-distance urban transportation for the middle class.”² An article in *The Economist* (2014) notes that in India, “milkmen use them for their rounds and parents pack their children off to school in them”, while in Sri Lanka “they are often the family car.”³ In some regions the auto rickshaw is the sole means of transporting people and goods (see images below).



- *Empowerment of women* It is a symbol of social, economic, and spatial mobility for women. Nearly 40% of urban auto rickshaw users in India are women (see § 3.B.1). The vehicle provides them with access to schools and workplaces, and enables social interactions for women who do not possess personal automobiles. In addition to being users of auto rickshaws, women have begun to operate them for income. In 2015, the ‘Pink Rickshaw Project’ was started in Lahore, Pakistan to provide taxi services for women by women, and to enable women to become financially independent.⁴ The city of Surat, India launched a similar initiative in July 2017.⁵ Related projects were started in Kolkata and Mumbai, followed by other cities across India. In Egypt and other African countries, the auto rickshaw is opening the doors for women to earn a living and to establish financial independence.⁶



- *Environmental concerns* The vehicle is a symbol of environmentally-friendly transport that meets the growing demands of mass transportation in densely populated cities. It is at the center of efforts in South Asian cities to address pollution generated by such demand.⁷ In India, auto rickshaws fueled by compressed natural gas (CNG) instead of diesel or petrol are painted green to express their ecological attributes. This feature has trickled down to toy models of auto rickshaws, such as Centy’s ‘Green India’ model.⁸ The Mexican ambassador to India, Melba Pria, uses an auto rickshaw as her official vehicle on account of its efficiency and ecological advantages.⁹ In April 2017, a driver in Bangalore named Narayana V began to grow saplings in his auto rickshaw to address global warming.¹⁰

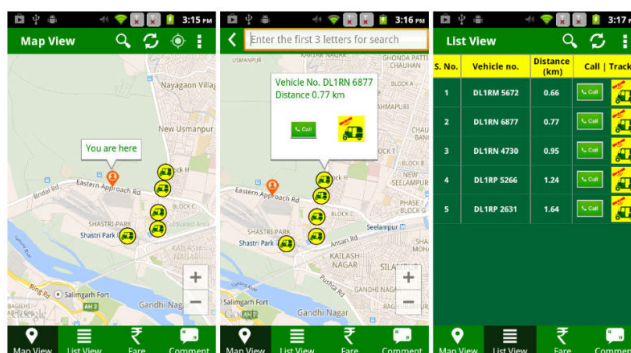


- *Tourism* The auto rickshaw symbolizes adventure, travel, and a unique experience for tourists. Invariably, travel photos from South and Southeast Asia will contain an auto rickshaw, more than likely with a tourist posed alongside or in it, as may be seen on Instagram, Twitter, or Google Images (see

§ 3.B.1). In 2006, ‘The Rickshaw Challenge’ began promoting adventure tourism through the experience of driving an auto rickshaw throughout set itineraries in India. The organization partners with Round Table India to raise donations for social initiatives.¹¹ Similarly, the ‘The Great Italian Rickshaw Adventure’ offers tourists the chance to rent an auto rickshaw to cruise the Italian countryside.¹² In 2015, a Czech national drove a ‘tuk tuk’ from Thailand to the Czech Republic.¹³ His endeavor continues to motivate usage of the auto rickshaw as a facet of adventure tourism.



- *Social service* It is a symbol of social service and uplift. In September 2017, Roshni Rides of Karachi, Pakistan was a winner of the Hult Prize at the United Nations. The Hult Prize rewards the best business idea for ‘improving the well-being of at least one million refugees over the next five years’.¹⁴ Roshni Rides proposed a shuttle service for “ferrying refugees from their homes to schools, work, hospitals and markets” using auto rickshaws in order to provide them with mobility and services.
- *Digital technology* The auto rickshaw also symbolizes the adaptation of technology to accommodate transportation needs. Several municipalities and private companies in India offer ride-hailing mobile apps for auto rickshaws.¹⁵ The transportation department of Delhi launched an Android app in 2015 called ‘Pooch-O’, which allows users to book over 90,000 rickshaws (see image below).¹⁶ The online auto rickshaw aggregator, Jugnoo, was founded in 2014.¹⁷ Similarly, Ola Cabs began in November 2014 and now services rickshaws in 73 cities across India.¹⁸



Despite the importance of the auto rickshaw to the daily life of its users, there is no emoji representation for it. Existing emoji such as 🚕 ‘taxi’ simply do not convey the symbolic, emotive, and tangible aspects of users’ experiences with 🚲. The absence of such an emoji has not gone unnoticed. Requests have been expressed in newspaper articles, blog posts, and on Twitter (see § 3.E). The iconicity of the auto rickshaw and its popularity among users of digital devices worldwide was recognized by Microsoft, which enabled the 🚲 ‘rickshaw’ emoticon in Skype in 2015 (see § 3.A). However, usage of this emoticon is limited to Skype and cannot be exchanged across applications. Including the AUTO RICKSHAW in the Unicode emoji set will permit users worldwide to express their sentiments and experiences with this vehicle along with other emoji.

1 Identification

The identifier for the proposed emoji is ‘AUTO RICKSHAW’. This name is used in English media and publications worldwide, eg. British Broadcasting Corporation (BBC),¹⁹ *Business Insider*,²⁰ *The Christian Science Monitor*,²¹ *The Economist*,²² *The New York Times*,²³ *The Wall Street Journal*,²⁴ and others.

The name ‘auto rickshaw’ originates in Indian English. The word ‘rickshaw’ originally referred to a human-pulled two-wheel cart. It derives from Japanese 力車 *rikisha* ‘cart’, which is an abbreviation of 人力車 *jinrikisha* ‘human-powered cart’.²⁵ In South Asia, the term was applied to pedaled three-wheel vehicles, ie. ‘cycle rickshaws’. When the motorized three-wheeler was introduced, it too was known as a ‘rickshaw’, but distinguished by usage of the prefix ‘auto’, meaning ‘automotive’. ‘Rickshaw’ has been part of the English lexicon since the late 19th century,²⁶ and ‘auto rickshaw’ is part of the vernacular of more than 1 billion people.

Another popular name for the vehicle is ‘tuk-tuk’. It derives from Thai ตุ๊กตุ๊ก *túk-túk*, an onomatopoeia for the sound emitted by the vehicle’s two-stroke engine. The term is a slang for the regular Thai name สามล้อ *sam-lo* (*saamlaw*), or ‘tricycle’. The name ‘tuk-tuk’ has made its way around the world, for example, in Egypt the vehicle is known as توك توك *tuk tuk*. Several other names used around the world: baby taxi, bajaj, CNG, mototaxi, three-wheeler, trishaw, tucxi, and variations on rickshaw.

The name AUTO RICKSHAW is preferred over ‘tuk-tuk’ as the formal identifier for the emoji in Unicode. It conveys information that will assist in its identification. ‘Tuk-tuk’ is not distinctive and ambiguous, and may refer to different types of vehicles in Thailand and Cambodia. It is more appropriate as a secondary name. Moreover, Google Search associates ‘tuk-tuk’ with ‘auto rickshaw’. Although the vehicle is also known generically as ‘rickshaw’, this term refers to a class of conveyances, which includes the auto, cycle, and pulled rickshaws.

1.A CLDR short name

The term ‘tuk tuk’ or ‘tuk-tuk’ should be used as a CLDR short name as it is a popular alternate name and will assist in searches for the emoji. Usage of the hyphen should be determined by emoji naming conventions.

1.B CLDR keywords

The following keywords may be associated with the emoji: ‘rickshaw’, ‘three wheeler’.

2 Images

An auto rickshaw is generally constructed using sheet-metal or an open frame on three wheels, a canvas or metal roof, a cabin in the front for the driver with handlebar controls, and a cargo, passenger, or dual purpose space at the rear.²⁷ There are variations in coloration and style. The basic features are prominent in the representative glyph:



The representative glyph is based upon the general design of auto rickshaws in India. This form is appropriate and truly representative because the largest number of auto rickshaws in the world are found in India. The style is reflective of rickshaws in Delhi. The green chassis indicates that the vehicle operates on compressed natural gas and symbolizes the environmental friendliness of the vehicle.

The quintessential Indian motif appears in the design of Microsoft’s Skype ‘rickshaw’ emoticon:



The proposed glyph is preferred over the Skype glyph, which depicts the vehicle with a driver and passenger, because Unicode transportation emoji do not portray drivers. Below are additional representations:



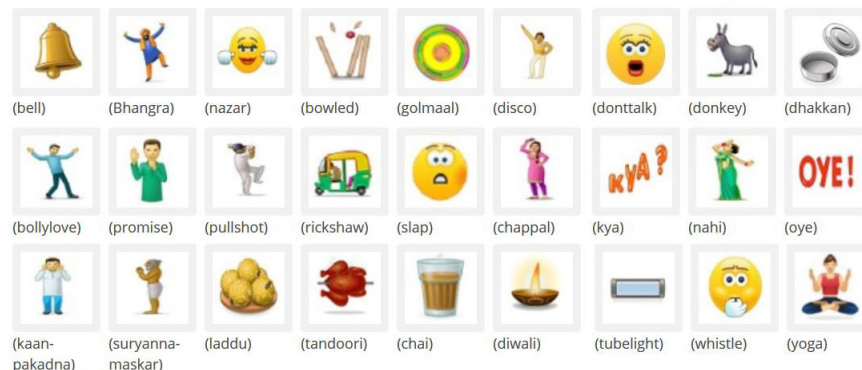
While there are numerous variations in design, color, and general adornment, the underlying identity of the vehicle as an ‘auto rickshaw’ is constant and graphically distinct from other vehicles. They are detailed and accurate artistic representations of physical auto rickshaws, as shown in photographs below:



3 Selection Factors — Inclusion

3.A Compatibility

The AUTO RICKSHAW is an emoticon in Skype. In October 2015, Microsoft made available 27 new emoticons in Skype for quintessential expressions and objects of South Asian popular culture. 🚲 ‘rickshaw’ is among this set. It may be generated using the shortcuts (rickshaw), (rikshaw), (ricksha).²⁸



3.B Expected usage level

3.B.1 Frequency

The expected usage of the AUTO RICKSHAW is very high. It will be popular among users in Asia and other regions where the vehicle is ubiquitous, and by users who encounter it through travel or other experiences. The projected high frequency of usage is supported by data from Instagram and Google Trends.

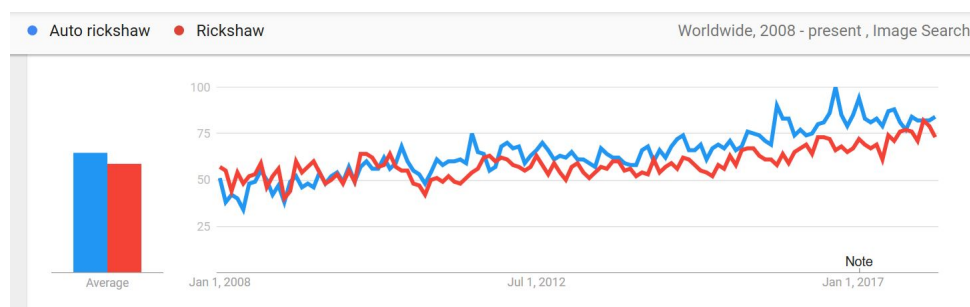
The Instagram hashtag counts for ‘auto rickshaw’ and ‘tuk tuk’ as of the date of this proposal are shown below. Hashtags related on account of spelling variations have also been sampled.

#tuktuk	568,061	https://www.instagram.com/explore/tags/tuktuk/
#autorickshaw	27,354	https://www.instagram.com/explore/tags/autorickshaw/
#autorikshaw	7,248	https://www.instagram.com/explore/tags/autorikshaw/
total	602,663	

There are a high number of posts for #tuktuk. A scan of the 568,000+ posts indicates the relevance of the count, as a vast majority of images contain the vehicle. Hashtags with spelling variations should be collated with #tuktuk, such as the 27,000+ posts with #autorickshaw, and those with tags such as #autorikshaw, #autoric, and #autorick. Regional names such as #tuctuc also return relevant posts. Not all variations have been sampled. The popularity of the ‘tuk tuk’ / ‘auto rickshaw’ on Instagram is also evident from the number of tags for the generic term ‘rickshaw’:

#rickshaw	169,319	https://www.instagram.com/explore/tags/rickshaw/
#rikshaw	21,039	https://www.instagram.com/explore/tags/rikshaw/
#trishaw	15,138	https://www.instagram.com/explore/tags/trishaw/
#riksha	8,097	https://www.instagram.com/explore/tags/riksha/
#ricksha	2,309	https://www.instagram.com/explore/tags/ricksha/

The AUTO RICKSHAW appears in numerous posts with #rickshaw and related tags. These have not been aggregated here with ‘tuk tuk’ / ‘auto rickshaw’. The collation is valid as the term ‘rickshaw’ is often used as a shorthand for ‘auto rickshaw’. A correlation between the two is indicated by Google Trends data:



The 600,000+ posts about ‘tuk tuk’ / ‘auto rickshaw’ indicate the popularity of the vehicle. A comparison with Instagram hashtags of other modes of conveyance used worldwide suggests broad popularity:

#taxi	2,148,856	https://www.instagram.com/explore/tags/taxi/
#tram	1,207,245	https://www.instagram.com/explore/tags/tram/
#trolley	316,390	https://www.instagram.com/explore/tags/trolley/
#minibus	72,901	https://www.instagram.com/explore/tags/minibus/
#taxicab	43,780	https://www.instagram.com/explore/tags/taxicab/
#trolleybus	26,332	https://www.instagram.com/explore/tags/trolleybus/

The number of posts for #taxi is extremely high. However, the count is not entirely meaningful as there are several images which do not contain a 'taxi' or any similar vehicle. Numerous #taxi images are of airplanes; advertisements for car services; and non-automotive objects. Similarly, several posts tagged as #taxicab are also unrelated to the 'taxi'. On the other hand, numerous posts tagged with #taxi contain images of auto rickshaws. The analysis of Instagram hashtags indicates that the count for 'auto rickshaw' / 'tuk tuk' may be higher because its images overlap with 'taxi'.

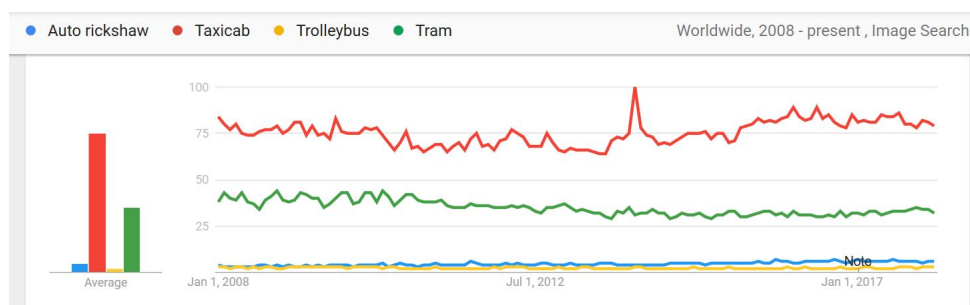
The popularity of 'tuk-tuk' / 'auto rickshaw' is also evident from Google data. Results from Google Search for these terms returns the following counts:

tuk tuk	13,300,000	https://www.google.com/search?q=tuk+tuk
tuktuk	5,770,000	https://www.google.com/search?q=tuktuk
autorickshaw	3,290,000	https://www.google.com/search?q=autorickshaw
auto rickshaw	3,040,000	https://www.google.com/search?q=auto+rickshaw

These may be compared with counts for modes of transportation that are used worldwide:

minibus	62,300,000	https://www.google.com/search?q=minibus
taxi cab	34,500,000	https://www.google.com/search?q=taxi+cab
tram car	6,340,000	https://www.google.com/search?q=tram+car
trolleybus	5,010,000	https://www.google.com/search?q=trolleybus
taxicab	3,550,000	https://www.google.com/search?q=taxicab

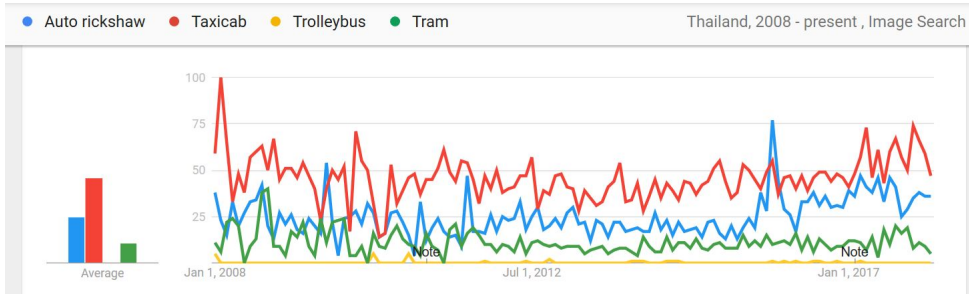
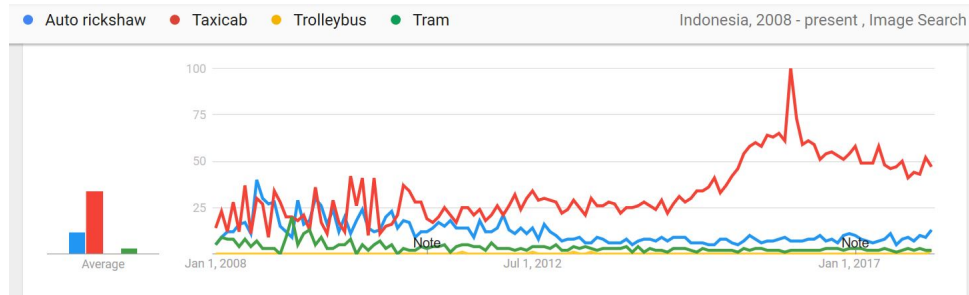
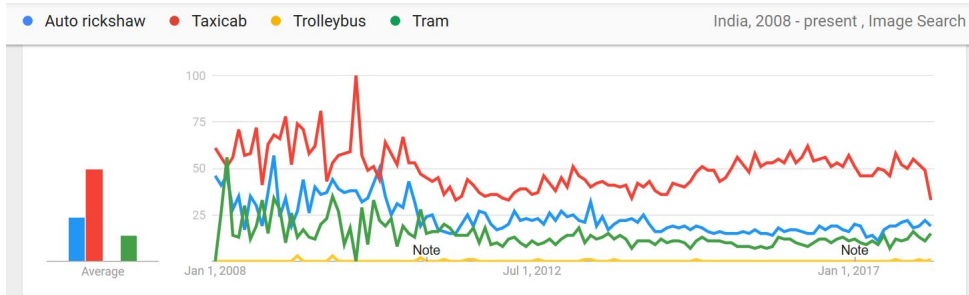
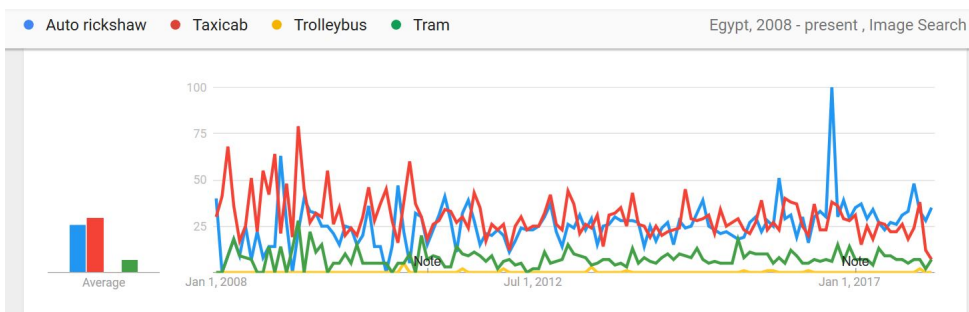
A comparison of these terms on Google Trends is shown in the chart below. Similar terms are aggregated with those shown in the legend, eg. 'tuk tuk' is grouped with 'Auto rickshaw (form of transportation)'. Terms have been selected based upon their classification by Google as a form or mode of transportation.



It is evident that 'taxicab' is popular worldwide. But the term is not entirely useful for understanding the regional popularity of 'auto rickshaw'. The interest by region for 'auto rickshaw' in Google Trends is depicted below:



A more meaningful measure of the potential high usage of the 'auto rickshaw' emoji may be gained by evaluating regions where the auto rickshaws is commonly used, such as Egypt, India, Indonesia, and Thailand:

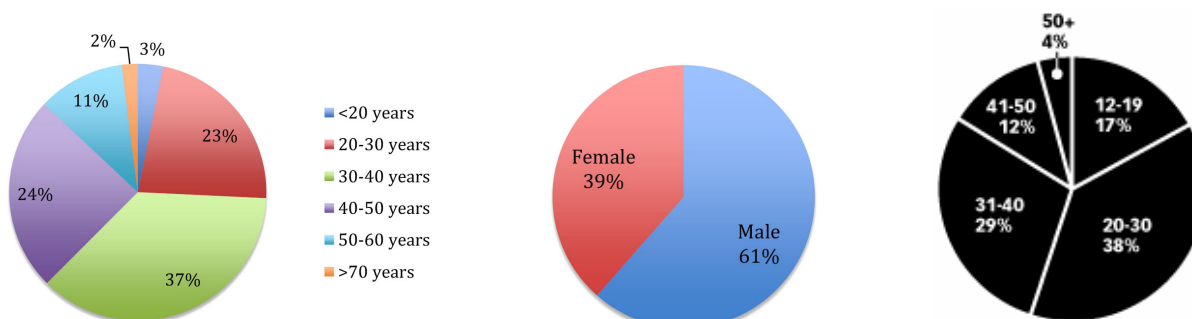


These charts indicate stable or rising interest in ‘auto rickshaw’ across world regions for at least the past five years. Although ‘taxicab’ historically had a higher trend, it is declining in certain regions. The ‘auto rickshaw’ has higher trends than ‘tram’ and ‘trolleybus’, modes of transport for which emoji exist. An examination of the ‘taxicab’ trend provides interesting insights. The terms ‘taxi’ and ‘taxi cab’ are ambiguous. While they refer to a specific type of transport, they are also categories that include other types of hired transportation. Indeed, the term ‘taxi’ is culturally constituted. While it generally refers to 🚕 in places such as London and New York City, it also refers to 🚲 in Egypt, India, Pakistan, Thailand, Tunisia, and other countries, as exhibited by the ‘taxi’ sign on the roof of auto rickshaws:



While a correlation may exist between the number of images or hashtags for certain objects and the frequency of usage of an emoji for that object, the importance may not hold for common, daily objects, particularly in the developing world. The 600,000+ Instagram hashtags for ‘tuk tuk’ / ‘auto rickshaw’ is considerable. However, it does not convey the high frequency with which the AUTO RICKSHAW would be used. Just as most regular users of Uber or a taxi cab do not take a photo of each and every vehicle in which they ride, a regular user of a tuk tuk does not take and post a photo of every auto rickshaw. During the travel experience, the Uber rider might use the 🚕 emoji in a text message to relay information about their journey. The same would apply to a passenger in an 🚲. In textual communication about and during such routine, daily experiences, an emoji is more likely to be used than an image.

Aside from counting hashtags and images, expected usage of the 🚲 emoji may be measured using demographic data from regions where the auto rickshaw is popular. The “Case Study of the Auto-rickshaw Sector in Mumbai” conducted by Embarq India in 2013 offers the following information on the age and gender of users (below left and center).²⁹ The report “The Changing Mobile Broadband Landscape” (2015) by Ericsson ConsumerLabs provides information on mobile Internet users in India (below right).³⁰



Coupling rider and digital device usage information provides interesting insights. The data indicates that 60% of auto rickshaw passengers in Mumbai, with a population of 18.4 million people, are between the ages of 20 and 40. The same age group accounts for 67% of the mobile device and Internet market. This data suggests

that the average user of a auto rickshaw has a mobile device with data service. This user is also likely to use that device to send text messages during a rickshaw ride to inform someone of her departure, arrival, and journey. If she uses emoji, then she is likely to use 🚲 in those texts.

The above demographic data may be paired with information about the growth of the Internet in India, which is currently the second largest online market. It is expected that the majority of users of a AUTO RICKSHAW emoji will be in India. Given its ubiquity in daily life, it is expected that usage of AUTO RICKSHAW will be high from the time of its initial release. Its usage grow as access to the Internet continues to increase in India and other parts of South Asia. In 2008, roughly 4.5% of India’s population had access to the Internet, and in 2016 penetration had reached nearly 30%.³¹ Currently, there are 460 million persons with Internet access, and the number of users is likely to grow to 636 million over the next five years.³²

The analysis above may be augmented using insights about the growing market for auto rickshaws. The study “Sustainable Urban Transport in India” conducted by the World Resources Institute in 2012 indicates growing demand for auto rickshaws in urban areas across India (below right), and growth in the production of auto vehicles, as well as domestic sales and exports (below left):³³

Figure 2 | Market Size of Auto-rickshaws for Select Indian Cities, 2010

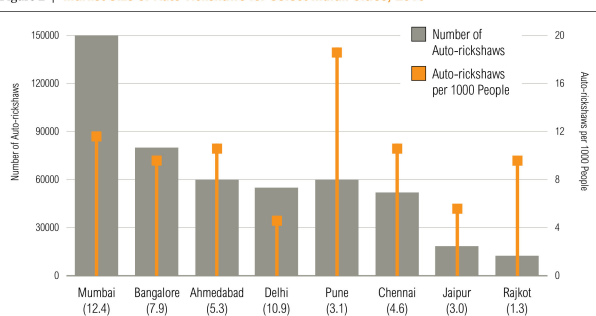
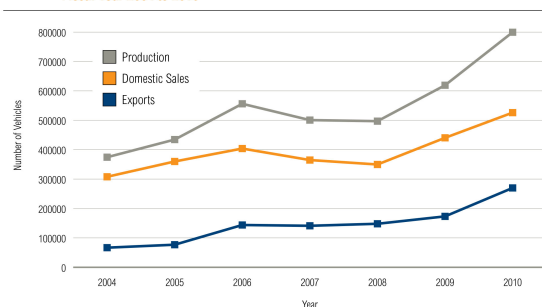


Figure 3 | Trends in Auto-rickshaw Production, Domestic Sales and Exports in India, Fiscal Year 2004 to 2010



The hashtag, image search, demographic, and industrial data presented above support the expected high frequency of usage for the AUTO RICKSHAW emoji.

3.3.2 Multiple usages

In addition to representing a common mode of transportation and the symbolic aspects of transportation, the AUTO RICKSHAW can be used for expressing several metaphors, such as ‘a bumpy ride’, ‘a harrowing ride’, ‘puttering along’, ‘made a narrow escape’, ‘off on an adventure’, etc.

3.3.3 Use in Sequences

The AUTO RICKSHAW is likely to be used in sequences with other emoji in order to indicate information about the mode of travel, an itinerary, a destination, the experience of the journey, and related details:



‘taking a tuk tuk to work’



‘going to the India vs Pakistan match in an auto’

	'I'm fine, I'm in a pink rickshaw'
	'ugh! I'm in an auto stuck in traffic'
	'whoa! what a bumpy ride!'
	'going by auto to a Diwali party (why is there no diya emoji?)'
	'be green! go by shared auto!'
	'it's raining we're taking a tuk tuk to the gym'
	'heading to the beach in Ko Samui in a tuk tuk'
	'traveled so far to get here!'

3.B.4 Breaking new ground

The AUTO RICKSHAW will 'break new ground' by inclusion in the emoji set by offering a representation of a common object used by millions around the world.

3.C Image distinctiveness

The 🚲 AUTO RICKSHAW is visually iconic and easily identifiable, as in the traffic below:



The AUTO RICKSHAW is graphically unique among the emoji for other motorized wheeled vehicles:

AUTOMOBILE	ARTICULATED LORRY	FIRE ENGINE
MINIBUS	TRACTOR	AMBULANCE
DELIVERY TRUCK	TROLLEY BUS	RACING CAR
TAXI	POLICE CAR	MOTORCYCLE

3.D Completeness

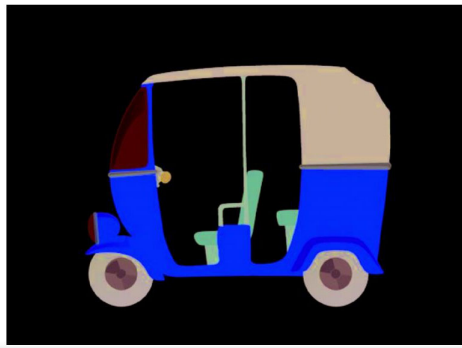
The addition of 🚲 AUTO RICKSHAW would extend the repertoire of emoji for motorized vehicles with a commonly used and very popular form of conveyance used in numerous countries.

3.E Frequently requested

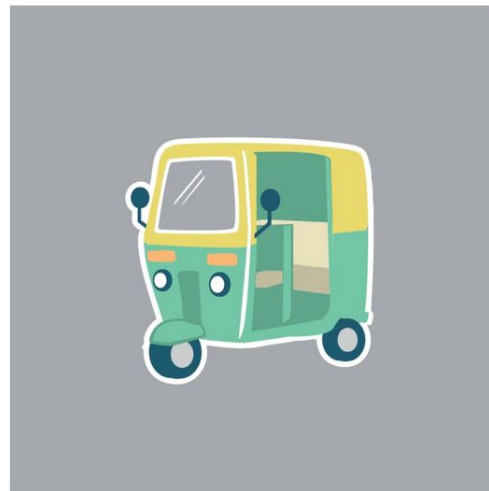
There have been no formal requests for the AUTO RICKSHAW emoji by members of the Unicode Consortium. However, informal requests have been expressed in articles in popular newspapers, such as the *Times of India*, in digital media, and on Twitter.

- In “Finding the Indian emoji” (November 15, 2015),³⁴ the *Sunday Times* asked four Indian advertising agencies to find icons that capture the ‘real India’ after Finland revealed some culturally-specific emoji.³⁵ In the top three was an ‘auto rickshaw’, suggested by Publicis South Asia (below left).
- In “17 Emojis Everyone In India Desperately Needs” (May 8, 2017), reporters for *Buzzfeed* asked their readers for input on India-related emoji.³⁶ The auto rickshaw was #6 (below right).

The third emoji, the auto rickshaw says it like it is. After all, this ubiquitous 3-wheeler all that it stands for is special to India. This emoji can also denote a bumpy ride or a narrow escape through the patli galli.



6. An auto rickshaw



Nathan Fyfe / BuzzFeed



Suggested by Vaishali Bakshi on Twitter.

For when you're "5 minutes away!" but actually still trying to find a rick.

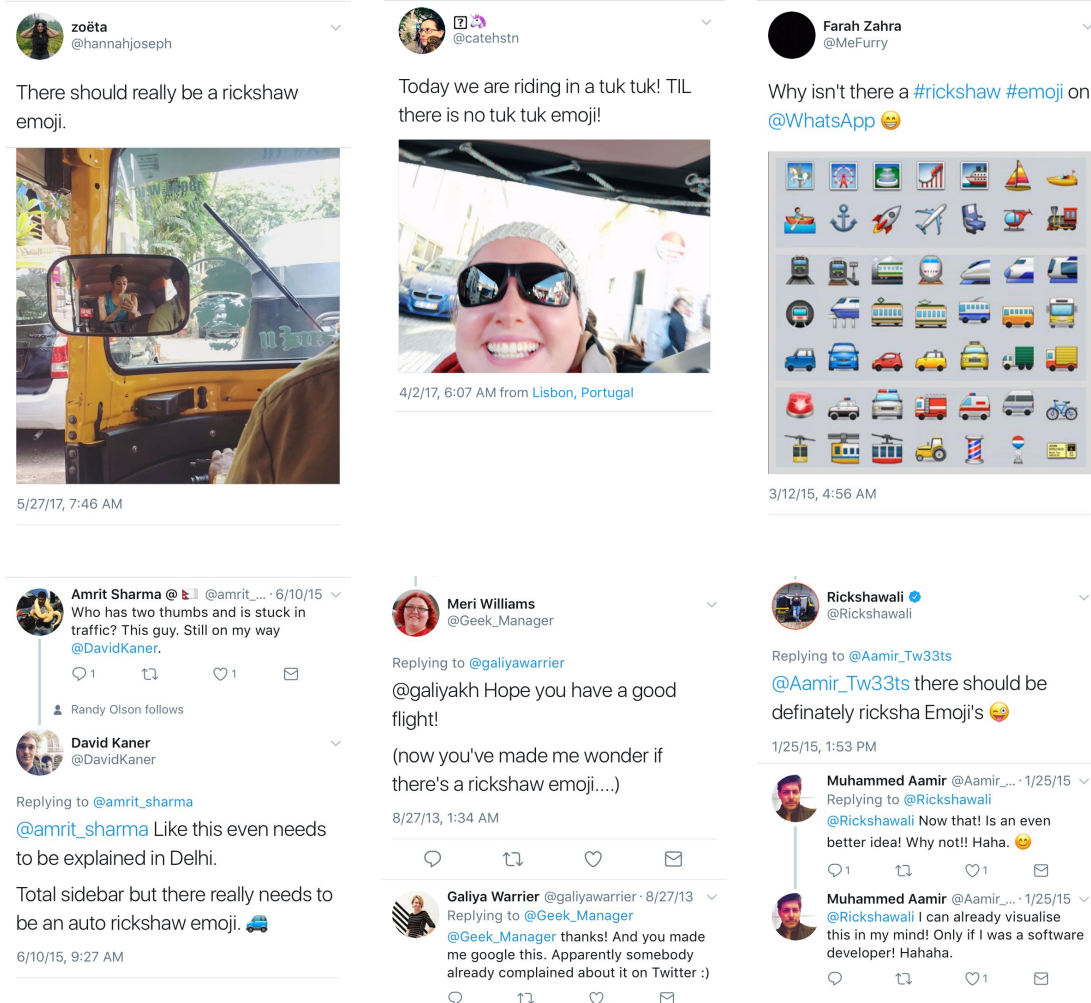
- In “How to unleash iOS 9.1’s awesome new emojis” (October 22, 2015),³⁷ *Cult of Mac* previewed the new emoji released in iOS 9.1. It lamented the absence of a ‘rickshaw’: “We’re pretty sure they covered every mode of travel that exists. Wait... no rickshaws. Get it together emoji makers.”

Travel & Places



We're pretty sure they covered every mode of travel that exists. Wait ... no rickshaws. Get it together, emoji makers.

Photo: Evan Killham/Cult of Mac



4 Selection Factors — Exclusion

4.F Overly specific

The AUTO RICKSHAW is not overly specific. It is a unique and distinctive vehicle and mode of transport. It is not a style or variant of an existing emoji for a mode of transport.

4.G Open-ended

The AUTO RICKSHAW emoji can be used as the representative for all styles and models of the vehicle.

4.H Already Representable

The AUTO RICKSHAW cannot be represented at present. There are no other emoji that adequately convey the graphical and semantic values of the proposed character. The only existing emoji which approximates

its meaning is 🚕 TAXI; that being, a fare-based conveyance. On account of the absence of a AUTO RICKSHAW, users are forced to rely upon textual substitutes, such as '(tuk tuk emoji)', '#tuktuk', '#rickshawemoji', '*rickshaw emoji*', 🚕, 🚲, and other workarounds as shown in the tweets above and below:



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

The AUTO RICKSHAW is not associated with any logo, brand, UI icon, signage, specific person, or deity.

4.J Transient

As an integral component of Asian transport culture, the AUTO RICKSHAW is far from 'transient'. As production and usage of the vehicle continue to grow, so will the relevance of the emoji.



4.K Faulty Comparison

The request for the AUTO RICKSHAW rests on its own merits and is unrelated to other emoji requests.

4.L Exact Images

The AUTO RICKSHAW does not require an exact image for its depiction.

5 Sort location

5.A Category

Based upon ‘Emoji Ordering, v11.0’ (<http://unicode.org/emoji/charts/emoji-ordering.html>), the appropriate category for AUTO RICKSHAW is ‘Travel & Places / transport-ground’:



5.B Emoji after

The AUTO RICKSHAW should be placed after 🚕 ONCOMING TAXI and before 🚗 AUTOMOBILE.

Notes

- ¹<http://www.bbc.com/news/av/business-40609125/india-exports-tuk-tuks-or-auto-rickshaws-to-africa>
- ²<https://hbr.org/2016/01/how-mobile-apps-are-improving-indias-rickshaws>
- ³<https://www.economist.com/news/business/21596993-motorised-rickshaw-despite-official-disapproval-becoming-ubiquitous-tuk-tuking>
- ⁴<https://thecircle.ngo/project/pink-rickshaw/>
- ⁵<http://deshgujarat.com/2017/07/02/launch-of-pink-auto-rickshaws-programme-in-surat/>
- ⁶<http://www.bbc.com/news/av/world-africa-37718347/meet-cairo-s-female-tuk-tuk-drivers>
- ⁷<https://www.csmonitor.com/World/Asia-South-Central/2012/0614/Delhi-tackles-air-pollution-with-more-auto-rickshaws>
- ⁸<https://www.amazon.in/Centy-Toys-Rickshaw-Multi-Color/dp/B011NXA79Q>
- ⁹<http://mashable.com/2016/04/06/mexican-ambassador-india-autorickshaw/>
- ¹⁰<http://bangaloremirror.indiatimes.com/bangalore/cover-story/bangalore/cover-story/auto-driver-who-hands-out-saplings/articleshow/58304815.cms>
- ¹¹<https://www.rickshawchallenge.com/about/social-initiative/>
- ¹²<https://www.cntraveller.in/story/in-italy-why-vespa-when-you-can-rickshaw/>
- ¹³<https://www.eturbonews.com/160366/tuk-tuk-driven-bangkok-prague-show-amazing-thailand>
- ¹⁴<https://www.npr.org/sections/goatsandsoda/2017/09/20/551888066/how-3-rickshaws-won-a-million-dollar-prize>
- ¹⁵<http://www.bbc.com/news/business-29840206>
- ¹⁶<https://gadgets.ndtv.com/apps/news/delhi-government-to-relaunch-poocho-app-cover-90000-auto-rickshaws-748216>
- ¹⁷<https://techcrunch.com/2016/04/18/indias-jugnoo-wraps-up-10m-series-b-for-uber-for-auto-rickshaws-service/>
- ¹⁸<https://www.olacabs.com/ola-autos>
- ¹⁹<http://www.bbc.com/news/av/world-asia-india-36464941/why-mexico-s-ambassador-in-delhi-rides-a-rickshaw>
- ²⁰<http://www.businessinsider.com/r-uber-launches-autorickshaw-service-in-indian-capital-2015-4>
- ²¹<https://www.csmonitor.com/World/Making-a-difference/Change-Agent/2014/1119/Rickshaw-drivers-take-a-respect-women-message-to-New-Delhi-streets>

- ²²<https://www.economist.com/news/business/21596993-motorised-rickshaw-despite-official-disapproval-becoming-ubiquitous-tuk-tuking>
- ²³<https://www.nytimes.com/2015/04/21/world/asia/uber-adds-a-low-tech-twist-to-its-modern-business-model-in-india.html>
- ²⁴<https://www.wsj.com/articles/SB121854079002133147>
- ²⁵<https://en.wiktionary.org/wiki/rickshaw>
- ²⁶<https://en.oxforddictionaries.com/definition/rickshaw>
- ²⁷https://en.wikipedia.org/wiki/Auto_rickshaw
- ²⁸<https://support.skype.com/en/faq/FA12330/what-is-the-full-list-of-emojicons>
- ²⁹<http://wricitieshub.org/reports/case-study-auto-rickshaw-sector-mumbai>
- ³⁰<https://www.ericsson.com/en/news/2015/4/mobile-broadband-creates-new-behaviors-amongst-urban-indian-smartphone-users-ericsson-consumerlab>
- ³¹<https://www.statista.com/statistics/255135/internet-penetration-in-india/>
- ³²<https://www.statista.com/topics/2157/internet-usage-in-india/>
- ³³<http://www.wriroscities.org/research/publication/sustainable-urban-transport-india-role-auto-rickshaw-sector>
- ³⁴<http://timesofindia.indiatimes.com/home/sunday-times/Finding-the-Indian-emoji/articleshow/49786876.cms>
- ³⁵<https://www.theverge.com/2015/11/5/9674552/finland-national-emoji-headbanger-sauna-nokia>
- ³⁶<https://www.buzzfeed.com/nathanwpyle/prime-minister-emodi>
- ³⁷<https://www.cultofmac.com/393550/ios-9-1-emojis/>



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