

Selection from TOP 100 Japanese Innovations of “Karaoke”

Summary

Karaoke is an entertainment involving singing or playing instruments accompanied by pre-recorded backup music. According to the All-Japan Karaoke Industrialist Association (JKA), it is estimated that some 46.8 million people enjoyed Karaoke in 2012, making it one of the major types of entertainment for Japanese people (Fig. 1). The Karaoke industry has developed through various inventions and ideas by many people since the 1960s.

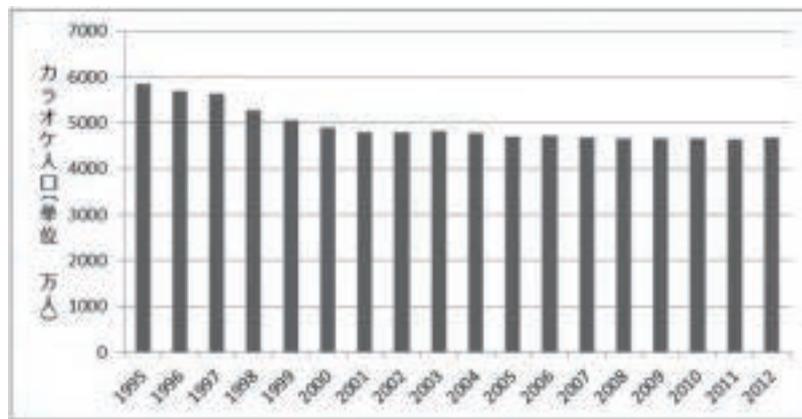


Fig. 1 Number of people enjoying karaoke

*The figure is derived from *Leisure White Paper 2000* (Institute for Free Time Design) for 1995 to 1999, and estimates by the All-Japan Karaoke Industrialist Association for 2000 to 2012.

Source: Drafted from *Karaoke White Paper 2013* (All-Japan Karaoke Industrialist Association)

Karaoke involves various markets, which the JKA categorizes into three types: 1) the nighttime market including snack bars and *izakayas* (Japanese-style bars) (a market worth approx. 182.3 billion yen), 2) the daytime market including *karaoke boxes* and tea rooms (approx. 391.2 billion yen), and 3) other markets including banquet rooms, health spas, hotels, and sightseeing buses (approx. 41.1 billion yen) (market scales are estimated values for FY2012)¹. Karaoke has become one of the biggest entertainment industries, worth approx. 67.5 billion yen for karaoke equipment alone and approx. 614.6 billion yen for end users such as karaoke fees².

While the karaoke industry has had various effects on society, it has contributed to music culture in two main ways. Firstly, it led to an improvement in the nation's singing ability. In Japan, music has always been a compulsory subject in the compulsory education system, with singing lessons being especially important³. Singing was also cultivated as a form of national entertainment, including amateur singing contests on the radio which became very popular just after the Second World War⁴. When karaoke was introduced amid this background, the whole population, irrespective of age or sex, gained more opportunities to sing songs on a daily basis, and thus singing and vocal music became a national culture. Secondly, karaoke also greatly affected the popular music market. Hiromichi Ugaya stated in “What is J-Pop? – A gigantic music industry” that the ranking of music sales became closely correlated to the songs that were being sung at karaoke in the 1990s⁵. Many million bestsellers emerged that

were also sung at karaoke.

Karaoke has become a global word as the entertainment has spread worldwide from Japan. In the neighboring countries and regions of China, Korea, and Taiwan, where people are familiar with Japanese songs including J-Pop, a karaoke culture similar to that in Japan became popular although by different means⁶. Also in San Francisco and Hawaii in the US, South and Central America⁷, and even in the UK and Russia, karaoke equipment for personal use has become very popular.

Background of Innovation

The following three innovations helped karaoke to become a major entertainment industry: the invention of karaoke equipment, the creation of karaoke boxes, and the conversion to online karaoke enabled by networking of digital accompaniment data.

(1) Invention of karaoke equipment

The word *karaoke* was originally a technical term used in the radio broadcasting industry. Compared with a live performance or orchestra, a tape recording of accompaniment without a vocal song was called a *kara* orchestra, literally meaning empty, which was then shortened to *karaoke*⁸. The karaoke tape enabled singers to promote themselves with just a few other people by taking only karaoke tapes to a local radio station or other performance venue.

Amateur singers started singing with karaoke tapes in the late 1960s. Meanwhile, karaoke equipment was developed in various places⁹. In 1967 in Tokyo, Shigekazu Negishi, who ran a car audio system assembly business, made a prototype in his workshop¹⁰. It was released as a package containing three items: a microphone, a tape, and a lyric sheet. In the Kansai region, Toshiharu Yamashita, who worked as a singing coach for amateurs and advocated a national singing movement, sold an 8-track playback deck called *harp*, which contained a microphone mixing circuit and accompaniment tapes, and thus kick-started the karaoke trend. At the same time, Daisuke Inoue, a singer who played his own musical instruments in Kobe, devised karaoke equipment by using a track tape, which had been used for car audio systems to easily cue music while driving¹¹, as recording media. He also developed equipment to mix the sound from the 8-track tape deck and voice from the microphone and incorporated a small amplifier and a coin-operated timer, enabling the equipment to run for 5 minutes with a 100-yen coin. The equipment had a square front measuring just 30 × 30 × 25 cm (W × H × D) so that it could fit in even small snack bars¹². The original equipment, called *8 JUKE*, was completed around 1971 and was very popular.

Similar equipment was manufactured elsewhere, such as small jukeboxes that were remodeled to allow customers to sing along, in the early period of innovation¹³.

From around 1972, Taikan, Nikkodo (later BMB), Daiichikosho and other manufacturers, which later became major enterprises, entered the market, followed by existing audio manufacturers including Clarion and Matsushita Electric Industrial in the late 1970s. Especially in the car audio industry where 8-track tapes were being replaced by cassette tapes, some companies produced karaoke equipment using surplus facilities that had produced 8-track tapes. In 1982, Pioneer released karaoke equipment with a laser disc that played video as well as music. As the recording media shifted from tapes to laser discs and compact discs (video CDs), the production of karaoke equipment required increasing amounts of capital.

Other key stages in equipment were a CD changer developed by Sony and Daiichikosho around 1984. This CD changer allowed music to be chosen by a remote controller, saving the



Fig. 2 "Music box" produced by Shigekazu Negishi
Photo courtesy of All-Japan Karaoke Industrialist Association

work of having to change discs and tapes by hand.

(2) Creation of karaoke boxes

The second innovation in the karaoke industry was the creation of karaoke boxes (rooms). The karaoke boxes changed the style of karaoke from singing in front of others in a shared room to singing in a separate room. Enjoying singing with friends without being watched by others made karaoke even more popular and attracted a wider range of customers. The daytime use of karaoke has increased since the arrival of the separate karaoke room; karaoke used to be a nighttime activity in snack bars. As a result, families, women and young people including high-school students became new customers.

The first karaoke box was created in 1985 by Yoichi Sato, a former truck driver in Okayama. He remodeled a truck container and fitted it with karaoke equipment¹⁴. Noticing the convenience of container boxes, Sato placed the container boxes in open spaces including parking lots and started a business. He later placed the containers in open spaces alongside roads. As construction-related procedures were unnecessary and as it was easy to install and remove the containers, landowners were more relaxed about the business and it was easier to negotiate land use with them.

Clarion and Daiichikoshō and Victor Company of Japan joined the karaoke box market in 1987 and 1988 respectively and set up container boxes throughout the country. The karaoke box, which used to be located alongside roads in rural areas, developed into larger stores, with separate rooms in buildings in cities¹⁵. After Daiichikoshō opened karaoke boxes in Sangenjaya in Tokyo in 1990, karaoke boxes in city centers became popular as a place to spend the night cheaply for people who had missed the last train home. The increasing number of unused buildings following the collapse of the bubble economy encouraged the spread of karaoke in cities, facilitating the opening of new urban-type karaoke stores. Various businesses such as entertainment arcades and sports centers also started to join the karaoke industry. Join of Shidax, which is a major catering service company, allowed cooked food to be served. In this way, various services were developed and added to the industry.

Since karaoke boxes were a new business, legal measures were required. The infrastruc-

ture of karaoke boxes as an industry was established through communication with the police, to avoid the boxes becoming places for juvenile delinquency¹⁶.

(3) Creation of online karaoke

The third innovation was the networking of music data. As the number of tracks stored in the equipment increased, more places were needed to store the laser discs, causing logistics difficulties of delivering new songs to major chain stores every month. This workload was reduced by distributing tracks through communication networks, which also had the merit of always providing the latest tracks for enjoyment.

Networking was backed by the technical development of the MIDI standard and the establishment of desktop music in the music industry. MIDI is music score data having 16 or 32 tracks, and 16 tracks of “concert” data can be reproduced by using a source chip meeting the MIDI standard. MIDI is a standard for musical scores for playing music on computers. MIDI was developed in 1983 to connect different synthesizers manufactured by different companies¹⁷. As a result of Roland’s opening of the patent of the DCB bus as the standard interface, a common standard was established for both domestic and overseas companies. Thanks to this standard, music composition using personal computers connected to musical instruments, called “desktop music”, became popular. People could now play music with electronic instruments by inputting data to computers even if they could not play actual musical instruments.

Though MIDI was originally the standard for synthesizers, Yuichi Yasutomo, an engineer of Brother Industries, transferred MIDI to karaoke. Yasutomo was exploring a new way of utilizing the “TAKERU” system which he had developed, for downloading software for sale. When Yasutomo was asked by a company to sell the MIDI data of a track through TAKERU, he was inspired to remodel TAKERU and use the data for a karaoke system.

In the era of slow network speeds, the amount of music data that could be transferred was small. Since MIDI was the music data standard for synthesizers and transfers only the score data, it was ideal for narrow-band communication lines. Karaoke equipment at that time typically contained 3000 tracks, so it was necessary to prepare 3000 MIDI data to establish online karaoke. Although only 300 tracks had been completed when XING was established in 1992, 3000 tracks of MIDI data were completed within 18 months from the establishment. To compose MIDI data, composers listen to the original music, convert it into score data that can be reproduced with a synthesizer, combine it with lyric data, and then make the final arrangements¹⁸. Each company set up special subsidiary companies to carry out such labor-intensive work. As of 2012, there are now over 200,000 tracks of music, which can be used as the ring tone of incoming calls on cellphones.

Though MIDI music requires little data, it was also important to design the networks to distribute them via narrow-band lines¹⁹. Yasutomo used TAKERU as a host computer, because it was installed in 300 sites across the nation. The computer in the head office and host computers in these 300 sites synchronized data every day, and the equipment in karaoke stores and host computers also synchronized data every day. As a result, each store could operate karaoke with only an ordinary telephone line, without requiring a dedicated line. Since dedicated communication lines were expensive and a different telephone number was required to set up an ISDN line, operation using existing analog telephone lines was a critical requirement for the spread of online karaoke.

Online karaoke could be considered a “destructive technology” for existing karaoke²⁰. Before online karaoke emerged, the main focus of technical innovation in the karaoke equipment industry was improving the quality of music played and creating videos to accompany the

songs. MIDI was inferior in quality to the existing karaoke, but far superior in updating the latest tracks and convenience²¹. The existing karaoke manufacturers lagged behind this innovative trend for 2 to 3 years²². Taito first joined the online karaoke market, followed by XING of Yasutomo, the second major company in the industry. From 1994 to 1995, Giga Networks, which was a subsidiary of Ricoh, Daiichikoshō, and Osaka Usen Broadcasting, which was a cable broadcasting operator, joined the online karaoke market.

The number of rooms in karaoke boxes peaked around 1996 at 160,680 rooms (Fig. 3), then fell gradually, reaching approx. 130,000 rooms in 2012. On the other hand, karaoke stores became larger as shown in Fig. 3, and the equipment/online system manufacturing industry became dominated by two major companies, Daiichikoshō and XING, due to reorganization of the industry²³.

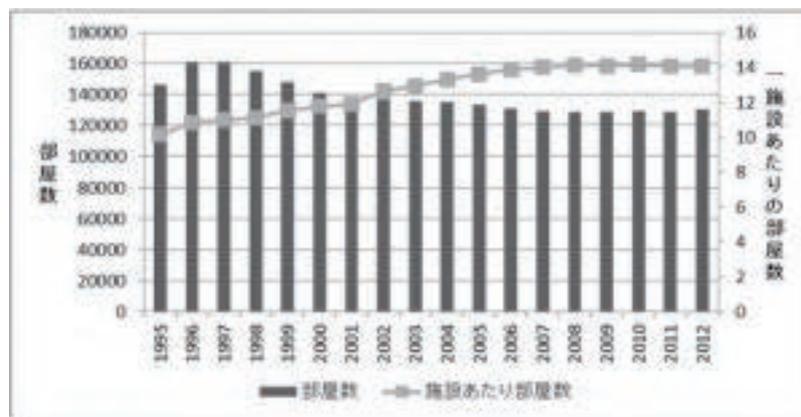


Fig. 3 Number of karaoke rooms and those per facility

* Number of rooms is derived from *Basic Research for Leisure Demand and Industrial Trend* (Institute for Free Time Design) for 1995 to 1999, and estimates by the All-Japan Karaoke Industrialist Association for 2000 to 2012.

Source: Drafted from *Karaoke White Paper 2013* (All-Japan Karaoke Industrialist Association)

Descriptions in the text

Note Names of companies and products are trademarks or registered trademarks.

Note “Co., Ltd.” etc. are omitted from company names.

Note Honorifics are omitted for people’s names.

References

1. All-Japan Karaoke Industrialist Association, *Karaoke White Paper 2013*, <<http://www.karaoke.or.jp/05hakusyo/p4.php>> (Accessed on February 6, 2014)
2. Ibid., <<http://www.karaoke.or.jp/05hakusyo/p5.php>> (Accessed on February 6, 2014)
3. Yoichiro Maekawa, *Karaoke shinkaron (Karaoke evolutionary theory) – Karaoke wa naze hayaritsuzukerunoka (Why does karaoke continue to be popular?)*, Kosaido Akatsuki 2009, p. 34
4. Hiromichi Ugaya, *Karaoke hishi (Secret history of karaoke) – Souikufu no sekaikakumei (World revolution of innovation)*, Shinchosha Publishing 2008, pp. 65–71
5. Hiromichi Ugaya, *J-pop towa nanika (What is J-Pop?) – Kyodaikasuru ongaku sangyo (A gigantic music industry)*, Iwanami Shinsho 2005
6. Maekawa, op. cit., p. 36
7. Ibid., p. 38

8. Ibid., p. 23
9. Ugaya, op. cit., (4), p. 20
10. Ibid., pp. 49–53
11. Ibid., p. 37
12. Ibid., p. 39
13. Ibid., p. 60
14. Ibid., p. 77, pp. 80–83
15. Ibid., pp. 97–98
16. Maekawa, op. cit., p. 105
17. Ugaya, op. cit., (4), p. 150
18. Ibid., p. 174
19. Ibid., pp. 138–139
20. Christensen C. (1997), *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*, Boston, Mass: Harvard University Press
21. Ugaya, op. cit., (4), p. 134, pp. 141–142
22. Sakuya Yoshimura and Tatsuya Kubota, *Karaoke kiki gyokai (Karaoke machine industry) -2 shaniyoru fukusenntaisei no seiritu (Establishment of duopoly system by two companies)*, Hitotsubashi Business Review vol. 59, no. 4, 2012, p. 152
23. Ibid., p. 145

Other references

- Leisure Development Center, *Leisure White Paper 2013*, Leisure Development Center, 2013, pp. 38–39
- All-Japan Karaoke Industrialist Association, *Karaoke White Paper 2010*, All-Japan Karaoke Industrialist Association, 2010, pp. 2–3
- Hiroyuki Kaji, *Karaoke: Landmark products made in Japan*, 2012, pp. 47–74
- Ken Fukazawa, *Endless battle in bar strategy for rapid growing karaoke*, Weekly Magazine Diamond, 1995, pp. 38–39
- All-Japan Karaoke Industrialist Association, *A History of Karaoke*, 1999, pp. 4–21, pp. 47–49