CLAIMS

1. An apparatus for enabling karaoke, the apparatus including:

a casing for the apparatus;

a microphone array incorporated within the casing, the microphone array being concealed from a user by the casing;

a controller coupled to the microphone array to at least process audio signals from the user input at the microphone array;

a data storage device coupled to the controller, the data storage device being for storing pre-recorded songs used for karaoke, and for storing songs as sung by the user; and

an image capturing device coupled to the controller, the image capturing device being for capturing images of the user while the user is singing, with the captured images of the user being stored on the data storage device;

wherein the microphone array detects the audio signals from the user when the user is within a predefined field of detection of the microphone array.

2. The apparatus of claim 1, wherein the microphone array includes either omni-directional microphones or uni-directional microphones.

3. The apparatus of claim 1, further including a receiver coupled to the controller to receive audio signals from the user using a wireless microphone.

4. The apparatus of claim 1, wherein the controller also performs a method for processing the pre-recorded songs, the method including:

assessing audible lyrics of the pre-recorded songs;

converting the audible lyrics to text for display on a screen connected to the apparatus; and

muting audible lyrics from the pre-recorded songs.

5. The apparatus of claim 4, wherein the controller performs the method which further includes:

controlling audio output of the pre-recorded songs; and

providing the audio output of the pre-recorded songs.

6. The apparatus of claim 5, wherein the controller controls the audio output by adjusting parameters of audio output selected from a group including: voice echo, music volume, voice volume, and music pitch.

7. The apparatus of claim 6, wherein the parameters of audio output are adjusted using either a remote control device or voice control.

8. The apparatus of claim 1, wherein the image capturing device captures images of the user when the user is within a predefined field of capture of the image capturing device.

9. The apparatus of claim 1, wherein the captured images of the user is used for creating a video.

10. The apparatus of claim 1, wherein the casing protects components of the apparatus.

11. The apparatus of claim 1, wherein the controller performs echo cancellation for secondary audio input at the microphone array, the secondary audio input being playback of the user's voice during the activity of karaoke.

12. The apparatus of claim 1, wherein the microphone array is configured such that the predefined field of detection is spread over a wide area.

13. The apparatus of claim 1, wherein the image capturing device is either integrated within the casing or separate from the apparatus.

14. The apparatus of claim 1, further including a network port coupled to the controller, the network port enabling the connection of the apparatus to a network.

15. The apparatus of claim 14, wherein the captured images of the user singing and a recording of the singing by the user are merged into a music video.

16. The apparatus of claim 15, wherein the music video is transmitted over the network and distributed to either at least one recipient or a central video depository for storage.

17. The apparatus of claim 16, wherein access to the stored videos on the central video depository by third parties may enable playback, and grading of the stored videos by the third parties.

What is claimed is:

1. An apparatus for enabling karaoke, the apparatus including:

a casing for the apparatus;

a microphone array incorporated within the casing, the microphone array being concealed from a user by the casing;

a controller coupled to the microphone array to at least process audio signals from the user input at the microphone array;

a receiver coupled to the controller, the receiver being configurable to receive audio signals from the user using a wireless microphone and when the audio signals are received from the wireless microphone, the controller is configurable to disable the microphone array such that audio input is only input through the wireless microphone;

a data storage device coupled to the controller, the data storage device being for storing pre-recorded songs used for karaoke, and for storing songs as sung by the user; and

an image capturing device coupled to the controller, the image capturing device being for capturing images of the user while the user is singing, with the captured images of the user being stored on the data storage device,

wherein the microphone array detects the audio signals from the user when the user is within a predefined field of detection of the microphone array, and

wherein the controller also performs a method for processing the pre-recorded songs, the method including:

(a) assessing audible lyrics of the pre-recorded songs;

(b) converting the audible lyrics to text for display on a screen connected to the apparatus; and

(c) muting audible lyrics from the pre-recorded songs.

2. The apparatus of claim 1, wherein the microphone array includes either omni-directional microphones or uni-directional microphones.

3. The apparatus of claim 1, wherein the controller performs the method which further includes

controlling audio output of the pre-recorded songs; and

providing the audio output of the pre-recorded songs.

4. The apparatus of claim 3, wherein the controller controls the audio output by adjusting parameters of audio output selected from a group consisting of: voice echo, music volume, voice volume, and music pitch.

5. The apparatus of claim 4, wherein the parameters of audio output are adjusted using either a remote control device or voice control.

6. The apparatus of claim 1, wherein the image capturing device captures images of the user when the user is within a predefined field of capture of the image capturing device.

7. The apparatus of claim 1, wherein the captured images of the user is used for creating a video.

8. The apparatus of claim 1, wherein the casing protects components of the apparatus.

9. The apparatus of claim 1, wherein the controller performs echo cancellation for secondary audio input at the microphone array, the secondary audio input being playback of the user's voice during the activity of karaoke.

10. The apparatus of claim 1, wherein the microphone array is configured such that the predefined field of detection is spread over a wide area.

11. The apparatus of claim 1, wherein the image capturing device is either integrated within the casing or separate from the apparatus.

12. The apparatus of claim 1, further including a network port coupled to the controller, the network port enabling the connection of the apparatus to a network.

13. The apparatus of claim 12, wherein the captured images of the user singing and a recording of the singing by the user are merged into a music video.

14. The apparatus of claim 13, wherein the music video is transmitted over the network and distributed to either at least one recipient or a central video depository for storage.

15. The apparatus of claim 14, wherein access to the stored videos on the central video depository by third parties may enable playback, and grading of the stored videos by the third parties.