

Ethics in the voice recreating technology of Lyrebird

Đỗ Trí Nhân : 1751087

Nguyễn Minh Trí : 1751109

Societal issues

This Artificial Intelligence

App can



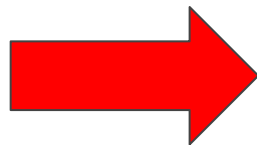
Clone Your Voice



Overview about Lyrebird

Overview about Lyrebird

Disguise/Clone anyone voice by "just a single **minute** of audio"



<https://lyrebird.ai/>

<https://en.wikipedia.org/wiki/Lyrebird>

Some detail information

- Deep learning models - speech to speech
- MILA lab
- Three founders are currently PhD students
- Voices can be make sound angry, sympathetic...
- The user can design their own voices



Some life-like synthesized voices before Lyrebird



Adobe VoCo *#The Photoshop for Voice*

- Still **not be published**, it is just a research project, is introduced at the Adobe MAX event
- Requires at least **20 minutes** of sample audio

<https://amitghosh.co.in/adobe-voco-photoshop-for-voice/>
<https://forums.adobe.com/thread/2443579>

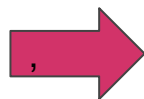
Problem

Two sides of view

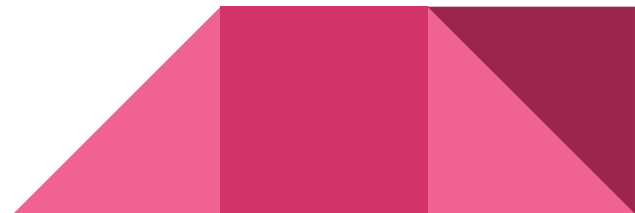
“1 minute” and “20 minutes

Adobe, Google haven't been able to mimic voices as quickly as Lyrebird

Collecting a person's voice in a minute is a lot easier than collecting an hour's dataset audio



raises important societal issues



Release and Restraint (just keep it in research)

**Society recognize and
apply its positive aspects,**

**While we must face
negative applications.**

Release

**Others would develop it
then sell the technology
to an ill-intentioned
organization**

Not Release

Similarities between Photoshop and Lyrebird



- ★ Should we continue to develop this technology
- ★ Should we use this technology widely like Photoshop
- ★ Should we trade off the security in exchange for modernity

Ethics Perspective

On LyreBird Startup

Kantianism

“By releasing our technology publicly ... we want to ensure that there will be no such risks. We hope that everyone will soon be aware that such technology exists ...”

By Founder of Lyrebird



Kantianism

The ultimate aim of Lyrebird:

Introduce tech to the world in the best possible manner

Publish to raise awareness for the social

Lyrebird wants to use the technology for good reasons

=> This is morally right



Social contract

- Voice creation and use only with the consent of the voice owner
- The start-up shows no problem with the law

=> This is also morally right



Utilitarianism - wrong side

Trick biometric software used to verify identity

Generate pretty convincing fake pictures and video of anyone to extort

=> Decrease the total happiness



Utilitarianism - right side

Speech synthesis for people with disabilities

Animation movies or for video game studios

Speaking automatically app, saving human resources

=> Not natural enough to be popular in present



Utilitarianism - in future

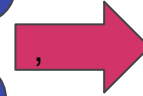
When Lyrebird well-known as Photoshop

The benefits will save most of the social costs

Security technology will be more modern

People will perceive harm, take precautions against fraud

Increasing human creativity and technology



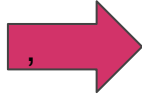
It is morally right in the future



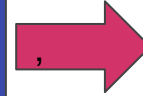


Group Opinion

More development
of technology



More security
technologies would
be introduced



Awareness of people
is more improvement

We **cannot** control the development, but we could find a way to use it for the **right purpose** and take **preventive measures**.

Suggest solution

The key thing is “how to introduce it to the world in the best possible manner”

- ➔ Raise **public awareness** to make people realize that the technology exists
- ➔ No one can use it without **voice owner consent**,
- ➔ They should have rights and obligations to **control its usage**

Suggest solution

Release

TO

Control

