

A Biography of Isamu Kaneko - Arrested By His Brilliant File Sharing Software

Masanari Doi



Introduction

This biography introduces a Japanese software engineer, Isamu Kaneko(1970-2013) who is known for producing a peer-to-peer(P2P) file sharing software called Winny.

Carrer

He was born in July 1970 in Tochigi prefecture, in Japan. He was already interested in programming when he was an elementary school student. After graduating from Ibaraki University, he worked as an engineer at the Japan Atomic Energy Research Institute. In 2002, he was selected as a research assistant in graduate course of computer engineering at the University of Tokyo and started developing P2P system.(web 1)

Winny

Winny is a peer-to-peer(P2P) file sharing software generated in Japan in 2002. Freenet is an inspiration of this software and it makes it possible to share files, such as mp3 files, mp4 files, any documents and any data without using a central server, so that user identity keeps being anonymous. Winny was implemented as a C++ application while Freenet was implemented in Java.(web 1) Before Winny was launched, WinMX had been a popular p2p network. Isamu Kaneko takes the name of Winny from WinMX, where he made two letters M and N go forward to N and Y, as he meant Winny is superior to WinMX.(web 2)

When users want to utilise Winny, it is essential to add an encrypted node list, which is needed to connect to other nodes on the network. Subsequently, the way winny is utilised is that "Users choose three cluster words which symbolise their interests, and then Winny connects to other nodes which share these cluster words, downloading and storing encrypted data from cache of these neighbours in a distributed data store."(web 2) When users want to downward a certain file, they establish triggers (keywords), then Winny downloads any files marked by triggers.(web 2)

In short, a simple flow of using Winny is that, for example, when we want a certain movie mp4 file, firstly we access the Winny networks and set up the movie's name as a trigger then Winny automatically starts downloading any files marked by trigger. After that, we can save the files we need and delete other files we do not need.(web 3) Therefore, winny makes it possible for people to download any files they want easily and anonymously.

Impact of a software to society

Once he launched Winny, because of its anonymous trait and ease of downloading system, this software was spread all over the world. However, in contrast with this handy downloading system, because of the fact that Winny automatically downloads any files marked by keywords, it is impossible for users to know what files are downloaded in a downloading process. Therefore, many computer viruses and malware were spread all over the world. (Web 3) Moreover, as the biggest problem, there was a huge spread of pirate movie or music data.(web 4) As a result, some Japanese people who shared copyrighted work were arrested in 2003. Moreover, as an assistance for copyright infringement, Isamu Kaneko was also arrested in 2004.(web 4)

After being arrested, and our loss of technological development

Despite the fact that his software, Winny caused many spreads of copyright infringement and computer virus, there is a truth that what he conducted was only making this software, which means he did not help others violate the law. Therefore, he was acquitted in 2011. However, 7 years had passed for receiving this judgement and meanwhile he was not able to develop the P2P system. Actually, his Winny system contains blockchain technology which is used for a basis of the bitcoin exchange system. Thus, it is said that if he had not been arrested, there would be more P2P system progress. Unfortunately, he died of myocardial infarction at age 42 in 2013, soon after he was regarded as innocent.(web 4)

Bibliography

Web 1 = Word finder, n.d. *What is "winny"*. [Online]. Available from: <https://findwords.info/term/winny> [Accessed 27 October 2021].

Web 2 = FANDOM. n.d. *Winny* [Online]. Available from: <https://freespeech.fandom.com/wiki/Winny> [Accessed 27 October 2021]

Web 3= JPCERTCC. June 2006. *Threats of P2P File Sharing Software — a Japanese Situation About "Winny"*—. [Online] Available from: <https://www.first.org/resources/papers/conference2006/kamata-keisuke-slides.pdf> [Accessed 27 October 2021]

Web 4 = WIRED. November 2018. 日本が失った天才、金子勇の光と影 [Online] Available from: <https://wired.jp/2018/11/10/winny-isamu-kaneko-1/> [Accessed 27 October 2021]