# Takushi Otani, *Out of Control*
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*Out of Control: Information Sharing, Security and Anonymity in the Internet* (original title:アウト・オブ・コントロール ネットにおける情報共有・セキュリティ・匿名性) by Takushi Otani(大谷卓史), is a comprehensive review of the current problems and possibilities in the Japanese Internet environment, written in relation to the development and incidents encompassing the Japanese file-sharing software known as Winny.

To fully understand the value of this book, one needs to know and understand what "Winny" is and why it is of any significance. As documented in the book, Winny has been a popular peer-to-peer (P2P) file-sharing platform in Japan that operates on the Microsoft Windows OS environment. The software was initially distributed in the 2Ch (Channel2) forum and was developed by a former University of Tokyo assistant named Isamu Kaneko. Winny does not require a central server, and is therefore a "pure" peer-to-peer system. Therefore, the network is robust and resilient, making it difficult to terminate. The data communication encoding uses a forwarding function in each computer's cache, in addition to an anonymous bulletin board function, and the design of the system allows each personal user to remain anonymous. The anonymity of Winny has been convenient for file sharing, so the Winny user population increased dramatically since its introduction in May 2002. The increase and popularity of its use prompted authorities to react within the following year. In November 27, 2003, two people who were determined to be using Winny were arrested in violation of copyright laws. As Winny allows the user to remain anonymous, the Japanese National Police Agency needed to make these arrests on circumstantial evidence. On May 10, 2004, the developer Isamu Kaneko was arrested for assisting copyright infringement. The legal basis for his arrest was in his conduct that resulted in copyright infringement propagation.

In 2005, Winny regained media attention and has prominence still today, as being a major vehicle for transferring computer viruses, especially malicious worms like Trojan horses over the Internet. Malicious worms that include exposure viruses,

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utilizes the Winny network to maliciously distribute personal chat logs, email data, digital camera pictures, screenshots, password memos, and etc. The worm begins sharing data on the desktop of the user's computer without the knowledge of the user, so usually when the victim realizes his computer has been infected, the situation for recovery is too late, because all the victim's files are already being shared on the Internet by then. The most malicious worms convert the computer into an HTTP server and begin exposing all data in the computer over the Internet and HTTP links merge the infected computers together. The unintentional distribution of sensitive and private information has been continuously reported throughout 2005 to the present: confidential customer information owned by various prestigious companies, police records of the National Police Agency, confidential prison records and judiciary information, and even sensitive information about nuclear power plants and military secrets of the Japanese Ground Self-Defense Force, Japanese Maritime Self-Defense Force, and Japanese Air Self-Defense Force have all been exposed over the Winny network. Such is the magnitude of impact this specific file-sharing software has had in Japan.

*Out of Control* first focuses on the social impact of Winny, conducting a journalistic style investigation of the involved parties that have been affected by the introduction of this file-sharing software. One original aspect of Otani's investigation is how he probes the possible technological and ideological motivation of the developer of Winny. Otani questions the adequacy of how the developer was arrested by the Japanese National Police Agency based on the Japanese legal system and copyright regulations.

Otani next explains peer-to-peer technology and Winny—in relation to the advances in Internet technology. He discusses whether Winny itself should be blamed for the loss of control of information, and explains just how easily one can lose control over information, if it is not protected and somehow gets on the Internet. As the Internet was originally introduced for sharing research information, the problems that accompany the evolution of the Internet and the commercial uses of the network are examined in relation to the cost of controlling information. Otani connects the important copyright and security issues that are related to P2P technology and current video sharing sites. Otani states that once a scheme for sharing or distributing information on the Internet is built, containing or controlling the information becomes very difficult. Attempting to have strict control over such information may be a contradiction itself due to the way the Internet was conceptualized.

In the third chapter, Otani introduces the concepts related to proprietary issues with Winny and first begins explaining the arguments of how the Internet can be perceived to be a commons. Proponents of this argument state that Internet resources should be a commons to be shared by everyone and skeptics point out how this may evolve into Hardin's well-quoted "tragedy of the commons" without proper accountable use and management of the network. He also discusses net neutrality and how violation of neutrality will affect file sharing by regulating or capping bandwidth of specific application activities. Otani suggests that the bandwidth of specific applications should not be capped or regulated. Bandwidth should be controlled or regulated in total and furthermore traffic information such as maximum limits should be made open to the public along with introduction of more precise traffic prediction technology. The chapter also covers the ethical dimension of information proprietary issues, pointing out how too

much proprietary protection for the creator will have the reverse effect on culture and the production of content. Otani quotes the argument made by Kotaro Nawa (*Intellectual Works: Balancing Proprietary and Public Domain Interests*, NTT Shuppan, 2006) for the necessity of a "well-balanced" commons for the digital age and reviews the problem of copyrights in association with this. In the final part of Chapter 3, Otani discusses the political and economic dimension of copyrights and the difficulties when attempting to create a balanced distribution system of copyrighted material, as we are currently in the mid-phase of a transition to digital content distribution.

In the fourth chapter that discusses anonymity, Otani first returns to the events encompassing Winny to remind us how file-sharing users increased through the appeal of providing anonymity. In the discussion, he argues how a certain level of anonymity has already existed in our world prior to the development of modern information and communication technology. We still rely on physical attributes, social, and legal formalities when we need to identify someone in the world outside of the Internet, and even in the Internet, some anonymity exists to a certain extent.

Anonymity and its preservation in the Internet are dependent on allowing or denying privileged accessibility to information of logs of local area networks. Aliases in the normal Internet usage setting that do not immediately give away identity usually maintain anonymity among Internet users. However, such anonymity loses much of its effect at the server administrator level when log information is accessible. Demands from a government agency to release the information in logs for a criminal investigation, is an example of how legal and social formalities can overrule the anonymity in the normal Internet usage setting. This exemplifies the misconception among some Japanese who believe that the Internet provides total anonymity. Although some antisocial or criminal activity may be attracted to the partial or conditional anonymity of the Internet, some others may try to use this anonymity for more constructive uses due to the freedom that is provided through it. Therefore, even the partial anonymity provided in the current Internet environment is still meaningful according to Otani. This same freedom that accompanies anonymity though, is the cause of many potential and manifest problems in Japan and other nations as well. The possibilities and potential problems of Internet anonymity are discussed through the following elements of anonymity of *unlinkability*, *unreachability*, and *unobservability*, along with *impression management*. The final part of this chapter examines surveillance—whether it is to provide considerate service or control and how social trust and social anxieties are intertwined with this.

Otani concludes the book with restating his discomfort with the way the developer of Winny, Isamu Kaneko was incriminated and re-examines the meaning of peer-to-peer technology and the moral of individuals in relation to technology. He ends with questioning ethics, our society and what is it that we need to actually protect through our laws and regulations.

Although *Out of Control* does not cover all the recent developments in the latest file-sharing technology trends, it addresses some of the main issues surrounding information sharing, security, and anonymity through a both a technological and historical perspective. It also makes an interesting investigation into ethics and social interaction. The main focus of this book is on Japan and provides a good introduction to peer-to-peer technology and thoroughly reviews many of the human

issues that can be related to Winny. The author insinuates the inadequacy of our current systems to quickly provide countermeasures to the challenges associated with technological innovation, and shares ambivalence of how governments and other regulatory organizations are handling new technology, especially in relation to digital content distribution. *Out of Control* provides many other thought-provoking issues about the impact of our transition to such a digital intensive environment.