Chapter 3 Information Ethics

About This Chapter

This chapter discusses such concepts as information ethics, etiquette, guidelines, regulations, rules and laws. The first section 3.1 “Information Ethics” (p. 42) explains what information ethics is and why information ethics is important with regard to participating in an information society.

The next sections 3.2 “Difference between Guidelines, Netiquette, Manners, Etc. and Information Ethics” and 3.3 “Manners: Avoiding Unnecessary Friction” (p. 42 to 44) then explains points to keep in mind when using a computer and a network from the viewpoint of “risk management.” Knowing what kind of risks are out there will help you protect yourself from unnecessary trouble.

Moreover, it is also important to learn about laws, especially about those to do with copyright. When you are using a computer, you are either a producer or consumer of information. Either way, you are dealing with copyrighted works in the form of information. Producing information from nothing is extremely difficult to do. Sir Isaac Newton once wrote in a letter: “If I have seen further it is by standing on the shoulders of Giants.” In reality, we cannot do much more than studying the vast accumulation of our predecessors’ findings. Anyway, before adding new findings of our own, let us learn how to stand on the shoulders of Giants.

3.1 Information Ethics

What is the first thing that comes to your mind when you hear the term "information ethics?" Many of you may think of a "collection of no-nos" which tells you what you can't do. Or you may think it is only a theoretical concept that scholars like to toss around, and that it has nothing to do with you. Or it may remind you of an ethics class you took in high school and make you wonder how information and ethics can be linked together.

"Ethics" is defined as a "moral code." According to the Kojien Japanese Dictionary (6th edition), morality is defined as "a way in which one should behave; the whole collection of publically recognized codes in a certain society that are used as standards to judge whether behavior toward the society by a member of the society or between members in the society is right or wrong. It does not have external coercive force like laws and regulations, but is rather a personal and internal principle."

As its name suggests, information ethics is an application of this definition, so it is a code of some sort. More specifically, information ethics can be described as the field of learning which investigates the code of ethics in an information society.

However, we must pay close attention to the words "in a certain society" in the definition of morality. That is, ethics may vary across the ages or depending on existing conditions. What ethicists said in the past, for example in Greek and Roman times, may still be somewhat relevant in the present day, but it may not necessarily be valid in modern times. Similarly, in information ethics, if what is implicated in the word "information" changes, situations that are presently considered to require ethical investigation and their solutions (if any) will change accordingly.

To sum up, information ethics can be viewed as "the field of learning which investigates social codes in a society where information technology is advancing, while taking the advancement of information technology into account."

A social code for a certain conduct does not refer to anything profound but to something more mundane, such as inputting data in a computer by tapping a key or clicking a mouse button. So, you may consider the study of information ethics here as something to the effect that we look anew at the implications of our casual, everyday use of computers.

Another characteristic of information ethics is its technological aspect. For example, suppose a user receives an email in a computer room. The same email has reached other computers in the room but simply got deleted. So, if someone were so inclined, he or she could easily sneak a peek at the email (though depending on devices and settings the email may not reach other computers). Such a technological characteristic of networks calls for reexamination of conduct concerning the privacy of communications, an important code stipulated explicitly in the Japanese Constitution. What is important here is the fact that understanding of such ethical situations requires understanding of technology.

As outlined above, information ethics may change in response to the advancement of the information society. A code of conduct may change as technological requirements change. Therefore, it is imperative that we have a fundamental understanding of such technology. However, since most of you are probably not working or studying on the technological aspects of computers or networks, we will learn the fundamentals of relevant technologies and their implications when necessary as we go along.

3.2 Difference between Guidelines, Netiquette, Manners, Etc. and Information Ethics

Information ethics is easily confused with guidelines, netiquette and manners. What are the differences between these and information ethics, then?

For example, it once was a common rule that the size of email should be kept under 50 KB and if an email exceeded that limit, that it should be divided up[1].

[1] This 50 KB baseline seems to be strongly influenced by the Netiquette Guidelines (RFC 1855). The 50 KB baseline might have had some significance in certain environments in the past, but as the Guidelines say, 50 KB was merely a rule of thumb established at the time the Guidelines were written.

This may be the maximum email size that a recipient might have been able to receive email without becoming irritated. This example could be classified as manners. Or this example could be classified as a guideline if it is based on certain conditions imposed on email recipients (mostly, communication equipment or servers, etc.)[2].

However, it is still questionable as to whether this is an information ethics issue. People should definitely refrain from wasting computer and network resources, but ethics is not something which should be enforced in a single, uniform way. Ethical issues should be considered by each person depending on the situation, based on his or her own rational value judgment.

Of course, this does not mean you can disregard netiquette, manners, guidelines and rules, about which we spend most of this chapter explaining. However, information ethics is not simply a collection of rules but rather a process for each person to formulate rules for him or herself internally and this self-determination based on self-responsibility is the big difference between information ethics and guidelines[3].

A fundamental understanding of the technical background is vital to the understanding of information ethics, as mentioned earlier. Since "ignorance is no excuse" is a basic tenet of society, regardless whether you are aware of the technical background or not, your ignorance can cause friction between you and society. Or you may end up becoming the perpetrator or victim of a crime.

Conversely, in order to achieve the principle of self-responsibility based on self-determination, we need to ensure a certain level of education in our society. Also in order to respond to changing social situations, we need to be able to gather information and acquire skills suitably and on a timely basis.

In short, as long as we use computers and networks, we must continue to learn their technical background and its implication.

This chapter presents several points you have to keep in mind when you use computers or networks, along with the fundamental technical principles you need to understand. Some matters are guidelines, some may fall under the category of manners or morals and some others may require the readers' ethical judgment.

Note that, as mentioned earlier, these matters are correct at the time of writing this guide but may not necessarily remain so in future. What is important in information ethics is to face the information society with your own will and your own rationality. Information ethics should not be forced upon you by someone else and since nobody will likely follow forced ethics, forcing it is meaningless anyway.

3.3 Manners: Avoiding Unnecessary Friction

This section talks about manners. Manners are the things which are not required by law or school regulations but you should know in order to avoid unnecessary friction and trouble. In accordance with the "Netiquette Guidelines" (RFC1855)[2], this section describes manners in three parts: one-to-one communications, one-to-many communications and information services.

3.3.1 One-to-one Communications

Many one-to-one communications are carried out over email or online chat. Firstly, we will talk about email.

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[2] Since Waseda-net reserves 5 MB for each student email account to store email messages, this rule very much concerns you, too. As MS Word, MS Excel and other file attachments can quickly use up your mailbox space, you should be careful.

[3] We would not like to see you selling pirated software over the Internet as a result of this self-determination based on self-responsibility, of course. Therefore, such self-determination should also be based on socially desirable values.

This is not limited to email, but the rule you need to keep in mind when you exchange information with others is this: "Be careful when sending and be tolerant when receiving."[4] You should adhere to good manners when you send email. And when you receive email, you need to be big-hearted enough to forgive small breaches of manners or common practice. All in all, what is important is to "put yourself in the other person's shoes"—a simple, common-sense way of thinking with regard to communication.

When writing email, first of all it is important to fulfill requirements as to format. In particular, carefully check the header information, such as the destination (To), carbon copy (Cc) and title (Subject)[5].

"To" is the destination. Cc-ed addresses also receive the email, but "Cc" means that the email is sent to the addresses for reference. "To" and "Cc" have different connotations, but the email will reach these addresses all the same. If you neglect to check "To" and "Cc," you may end up sending information to a completely unintended email address. Remember that once an email has left your hands, you cannot control it.

Students often forget to fill in the Subject (title). Many people receive more than a few email messages every day. For people who receive several dozens or even several hundred email messages daily, messages with inappropriate titles are unhelpful and very likely to receive low priorities. Also remember that Subjects like "Hello" or "Request" are practically meaningless.

We often encounter email messages which expect a quick reply. Email is an asynchronous communication method. Remember that it is not guaranteed that your email will reach the intended recipients or will be actually read by them.

Finally, you may recall that a while ago a "falsified" email became a topic discussed in the Diet. Virtually none of the email systems widely used today can prevent impersonation or deception during transmission. Keep in mind that since email is as about as confidential and reliable as a postcard, use different means of communications where appropriate. For example, communicate really important information by letter or telephone and if you must use email to send the important information, encrypt the message.

3.3.2 One-to-many Communications

You need to keep the same things in mind that you would be in one-to-many communications in one-to-one communications, but there are additional points to keep in mind.

When you deal with a group of people, certain rules always exist. It is irrelevant whether the rules are written or unwritten. You cannot be part of a community if you deviate from its rules. There are many one-to-many communication tools, such as mailing lists, Usenet and forum and whichever tool you use, you must know the rules of the community in order to participate in it without causing unnecessary friction.

3.4 Risk Management: How Not to Become a Victim

This section introduces to you EFF's "Top 12 Ways to Protect Your Online Privacy"[6] from the Electronic Frontier Foundation (EFF).

The economic value of information exchanged over networks is growing and direct monetary transactions, such as shopping using Internet banking or a credit card, are also increasing. Consequently, the nature of computer crimes has been shifting significantly from simple crimes for fun to crimes for money. You must not use a computer or a network carelessly without knowing about these methods.

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4 However, this rule does not apply to Faculty. Since the role of Faculty is to guide students, they have to be critical about students' email.
5 There are many names for the "Subject" of an email.
6 Refer to: http://www.eff.org/wp/effs-top-12-ways-protect-your-online-privacy.

The first step to risk management is knowing what kind of risks are out there. In order to understand these risks, though, you need to have extensive and detailed knowledge of computer and network security. However, novice users who have just started using computers and networks have practically no idea what they can do with them. This is an area of difficulty in computer and network security.

These “12 Ways” cover a lot of things you can do right now without much knowledge of computer. Those which require a technical explanation will be described later.

1. Do not reveal personal information inadvertently.
2. Turn on cookie notices in your Web browser, and/or use cookie management software or infomediaries.
3. Keep a “clean” email address.
4. Do not reveal personal details to strangers or just-met “friends.”
5. Realize you may be monitored at work, avoid sending highly personal email to mailing lists and keep sensitive files on your home computer.
6. Beware sites that offer some sort of reward or prize in exchange for your contact information or other personal details.
7. Do not reply to spammers, for any reason.
8. Be conscious of Web security.
9. Be conscious of home computer security.
10. Examine privacy policies and seals.
11. Remember that YOU decide what information about yourself to reveal, when, why and to whom.
12. Use encryption!

(From: http://www.eff.org/wp/effs-top-12-ways-protect-your-online-privacy)

What we would like to emphasize first is this piece of common sense, which is covered in 1, 4, 6, 10 and 11 (meaning it is important enough to repeat many times), that is: “You are the one who is responsible for the protection of information about yourself.” When using the Internet, you are asked to provide your personal information in various circumstances.

On the Internet, you are asked for personal information mostly when subscribing to paid or free services. Even for paid services, you may be asked for personal information which is unnecessary for the provision of the service. We would like you to think how the personal information will be handled afterward and whether you need the service so much so that you are willing to give up your personal information.

Privacy policies and seals (such as PrivacyMark) by each company are helpful for checking these things. Even if a certain service seems very useful, you should not use it unless the company has set up privacy policies. Moreover, check whenever possible for PrivacyMark, TRUSTe, or other seals, to make sure the company in question has received certification from an external organization.

When you handle information about yourself, what is important is your self-determination based on accountability. Does the site (company) explain why it is necessary to enter your personal information? For example, it is impossible to have purchased goods delivered from a shopping site without entering a shipping address. Then, what should you do when you are asked for your date of birth? For example, the site may explain that you can use a service which recommends merchandise suitable for your age group. In fact, the information will probably be used for this kind of marketing analysis. Is it possible that providing such information would cause you any problems later? You must decide.

Self-determination based on accountability also applies to cases which do not involve any monetary transaction, such as entering a sweepstakes. Please be aware that in essence what you are doing here is trying to win a prize at certain odds in exchange for information about yourself.

In certain cases, even if you are asked to enter your personal information, such as your name and telephone number, you should not enter your correct name or telephone number. Please understand that we are not recommending that you use Web sites fraudulently. However, as mentioned earlier, how much personal information you give out is something that you should decide, not the company running the Web site you are about to use.

If you enter nothing at all in any form on any Web site, the risk of letting out information about yourself can be minimized. However, not all your personal information is about yourself. For example, what kind of sites you have visited is also important personal information. Each computer on the Internet is assigned a unique number called an IP address, which is just like a telephone number. Each site records which IP addresses have accessed the site.

Also Web browsers have a mechanism called cookies. The Web works as follows: a Web browser (client) requests a site (server) to send information and the server sends the information to the client (response). During this information flow, in most cases a Web browser requests information and a server sends the information. In other words, the main information flow is from servers to Web browsers. A form is also a kind of request, but even if you do not use any forms, your information may still get disclosed. There is another information path from Web browsers to servers: by cookies. Basically, cookies work as follows.

1. A Web browser sends a request for information to a server.
2. The server sends the Web browser a Web page and a cookie.
3. The cookie contains a unique number with many digits, which enable the Web browser to be identified.
4. The Web browser accesses the same server again.
5. The cookie is handed over from the Web browser to the server.

In short, cookies can be used to identify which computer is accessing a server. Cookies are not necessarily all evil. Using a cookie, you can log into a Web site without typing your ID and password. The point here is that while cookies are a convenient mechanism, they can easily cause privacy problems, so we need to manage them properly.

A “clean” email address is an address which you tell to only your friends. “Keep a clean email address” means you should acquire a main (clean) email address other than the address you use for shopping and Web posting.

Finally, as for encryption, usually data is transmitted unencrypted unless otherwise specified. This is a basic feature of the Internet. The interception of communications is not necessarily easy without encryption, but encryption has many additional advantages. Use encrypted communications as much as possible.

3.5 Rules: How Not to Become a Perpetrator

Unless you live alone on a desert island, you have to live in a society and that means you have to follow the rules. Rules can be laws, guidelines or regulations. This section introduces you a list of activities prohibited by the related regulations of Waseda University.

3.5.1 Activities Prohibited on All Systems

The prohibited activities specified in the Regulations are almost the same for all systems. The following 21 activities are prohibited on all systems managed by Waseda University[7].

1. The transfer, selling or lending of user IDs or passwords to a third party for the usage thereby
2. Unauthorized use of another user's user ID or password
3. Assuming another user's identity
4. Unauthorized use of the Systems or aiding such unauthorized use
5. Commercial usage of the Systems
6. Violating the copyright or other intellectual property rights of other users, the University or third parties
7. Slandering, libeling or damaging the reputation or credibility of other users, the University or third parties
8. Infringement of the reputation, property, privacy or other rights of other users or third parties
9. Any activity that may lead to criminal acts such as fraud
10. Tampering with or deleting information other than that under management of the user in question
11. The act of sending, uploading or writing to the Systems harmful computer programs, etc.
12. Monopolization or wasteful use of computer and network resources
13. Creating pyramid schemes or inviting others to join such schemes
14. Sending unsolicited email containing advertisements, publicity, invitations and so forth or email of a malicious or offensive nature (such as email harassment) to other users and/or third parties
15. Sending or posting pornographic or otherwise inappropriate images or documents
16. Interference with the use or operation of the equipment and the like of users or third parties or of equipment used for Waseda's services
17. Any election campaign activities, as defined in the Public Offices Election Law, or other laws and bylaws or similar activities
18. Deliberately sending or posting information contradicting facts or meaningless information
19. Other illegal or antisocial activities or activities offensive to public order and morals
20. Other activities that interfere with the operation of the Systems
21. Other activities that may fall under any of the above items or similar activities

The wording regarding these prohibited activities may be revised. Refer to the "Media Network Center (MNC)" Web page from time to time for the latest regulations.

Any activity which falls under these categories is not only detrimental to users themselves but also damaging to Waseda University as a whole. If there is a high likelihood that any of these acts has been committed, MNC will conduct an investigation and a punishment may be imposed depending on its findings.

Out of the 21 prohibited items, those which are particularly important are explained below.

[7] http://www.waseda.jp/mnc/rules.html

User ID and Password

Use of the on-campus network is a privilege granted to the students and faculty and staff of Waseda University. General users do not have the authority to grant this privilege to anyone outside of the university. Any user ID issued to a user can be used only by that user. Moreover, a password should be known to the user and no-one else, and be kept confidential by that user.

Any disclosure of your password, even to the system administrator or in an inquiry email to MNC, will be interpreted as a violation of the Regulations, so handle your password with extreme care.

This is very important not only for the protection of user rights including privacy, but also for the protection of the system integrity and credibility of Waseda University.

The right of anonymity is protected by Copyright Act. Even so, anyone who makes repeated offensive postings on an anonymous forum is subject to punishment; but this does not mean anonymity is to blame. However, you need to understand that the Internet provides a much lower level of anonymity than paper media. It seems that people tend to speak and behave irresponsibly in an anonymous environment, but they are often caught in the act in an unexpected way and regret their actions later.

Assuming another person's identity is not acceptable under any circumstances. This includes borrowing someone's ID and impersonating that person, or carrying out activities on the Internet pretending to be someone else.

Column: The Internet and Anonymity

Terms such as "an anonymous Internet forum," "an anonymous and secret school Web site," and "a highly anonymous file-sharing system" are frequently used by the media. However, arrests of those who have made death threats on such systems are all too frequent. And if you are sharing files in violation of the Copyright Act using supposedly "highly anonymous" software like Winny, Japanese and international authorities will be notified in no time and you will be held criminally and civilly responsible.

A unique number called an IP address, the equivalent of a telephone number (discussed briefly in Chapter 2 "Using Networks" on page 34), is assigned to each computer connected to the Internet. These numbers are used whenever computers communicate. Without using IP addresses, communication cannot take place. Computer you have communicated with often keep records (called a log) of which computers have accessed them.

Organizations, such as universities or Internet service providers, which provide Internet connection service to end users, assign these IP addresses. These organizations keep logs which record which IP address is assigned to which user.

Combining these two sources of information and the date the activity in question was carried out enables us to determine who did what.

As you see, the Internet is in no way a highly anonymous system.

Copyright

You must not encroach on others' rights. You must also avoid carrying out activities prohibited by such laws as criminal law.

Such activities harm the reputation of Waseda University and the offenders will be held accountable for their actions.

At university, you must be particularly careful about observing the Copyright Act. Copyright is a relatively strong right. Writing even a single sentence immediately generates an exclusive right without any need for the author to give notification of it, and that right will be protected for a long time.

In a university, students write text for reports and papers. Sometimes they may publish information on Web pages. They may also give presentations on research findings.

If you use another person's writing in your report or paper without permission, the passage will be considered to be a "reproduction" and you will have committed copyright infringement. If you publish borrowed information on a Web page, the document will be considered to be a "reproduction." As soon as a document is placed on a Web server, that document can be transmitted to the general public (this considered to be "making a work transmittable"). Distribution of the information to the general public is considered to be a "public transmission." If you use other people's work in your presentation without permission, the act is considered to be a "performance" or a "presentation."

"Reproduction" means the extraction and usage of all or part of a work, such articles and image data, unchanged. In order to use such articles and image data, you need to obtain permission for such reproduction from the author or registered owner. If you make a reproduction without permission, you may be sued for copyright infringement. So please take care.

On the other hand, copyright does not prohibit all forms of use. Certain usages of works are exempt (Article 30 to Article 47 *quater* of the Copyright Act). These usages are permitted under the Copyright Act and you do not need to obtain permission from the owner of copyright in these cases.

Note that, however, the Copyright Act of Japan lists specific usages which are exempt from copyright. You need to understand each case before using copyrighted works in such a way.

For example, you are allowed to use text written by others in your own texts in the form of quotations (Article 32 of the Copyright Act). Usage is considered to be a quotation if it satisfies the following conditions.

- There is a necessity to make the quotation.
- Your work and the quotation are clearly differentiated.
- The source, author name, etc. of the quoted work are explicitly stated.
- The "subordinate-superior" relationship of your work and the quoted work is clear.
- As a general rule, keep the original format of the work you are quoting. If you modify the original work and use it, you must explicitly state that is the case.

"Necessity" means you cannot make quotations out of context. This is because if you were to be allowed to do so, you could reproduce anything you want by asserting you are making quotations.

As for "Your work and the quotation are clearly differentiated," this can be done by, for example. your placing a short phrase in parentheses. Longer text is often given in its own paragraph, indented and separated with extra spacing from the preceding and following paragraphs. Since a picture is worth a thousand words, we will quote a part of the preamble of the Constitution of Japan[8] as an example.

> We, the Japanese people, desire peace for all time and are deeply conscious of the high ideals controlling human relationship, and we have determined to preserve our security and existence, trusting in the justice and faith of the peace-loving peoples of the world. We desire to occupy an honored place in an international society striving for the preservation of peace, and the banishment of tyranny and slavery, oppression and intolerance for all time from the earth. We recognize that all peoples of the world have the right to live in peace, free from fear and want.

[8] The Constitution and other laws or ordinances are not subject to copyright (Article 13 of the Copyright Act).

Now, as for indicating your sources, listing all your sources at the end of your work as a bibliography is insufficient. You must specify the source corresponding to each of your quotation. In other words, you must clearly state for each quotation which part of your text is quoted from what literature. The methods of indicating quotations vary by academic field and by academic community. This guide explains these methods in Chapter 6 "Basics of Report and Paper Writing" (p. 69) for your reference.

"You must indicate all your sources" means that you need to create a list of all the literature which you have used as reference. Moreover, you cannot just create this bibliographical list in a random manner. You need to use a uniform, formal method to create your bibliographical list. There is a bibliography management system called Refworks which has been made available to all Waseda University students by the university. Use this system to aid you in your paper writing. This guide introduces the Refworks system in detail in "Managing Literature Using Refworks" on page 81.

"The subordinate-superior relationship… is clear" means that your writing must be clearly the principal part of your text in terms of the quality and quantity of writing. "Quality" here means that quotations must be supplemental to your writing; and "quantity" means that the length of the quotation must be shorter than your original writing, otherwise you will have a hard time claiming that your usage is a quotation.

In Waseda University, writing a report, Bachelor's Thesis, Master's Thesis, or Doctoral Dissertation without using quotations appropriately is considered plagiarism and will be penalized in the same way as misconduct (i.e. cheating) during a regular examination. That means you will lose all your credits for the semester and be suspended from the university.

Other Important Notes

Waseda University has established the "Waseda University Harassment Prevention Committee" and put together related guidelines. Harassment is a violation of human rights. Even if such action are via computers or networks, any language or behavior which runs counter to the guidelines will be considered a human rights violation.

For details, refer to the Web pages of the "Waseda University Harassment Prevention Committee."

http://www.waseda.jp/stop/index-e.html

Please read through the Web pages before you end up hurting someone unknowingly.