Course: Professional Issues in Information Technology

Week 5: Plagiarism

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Lecture learning outcomes

At the end of this lecture, the learner should be able to:

1. Define Plagiarism
2. Describe the types of plagiarism
3. Compare and contrast plagiarism with copyright infringement
4. Describe other issues related to Intellectual Property rights e.g. reverse engineering and open source code

1.1 Plagiarism

1.1.1 Definition:

Plagiarism is the practice of taking someone else's work or ideas and passing them on as one's own.[1]

Explosion of online content has made it easy to copy and paste paragraphs without proper citation or quotes

Plagiarism also occurs outside academic institutions for example software developers have been accused of it therefore it becomes a professional issue

1.1.2 Effects of Plagiarism

- Plagiarism is a key Intellectual property issue and in both academic and industry fields, plagiarism is a serious ethical offense.

[1] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 234

- The result of plagiarism is academic dishonesty and a breach of journalistic ethics or theft of intellectual property.[2]
- Plagiarism is subject to consequences such as appropriate penalties, substantial fines, suspension and expulsion from school or employment.[3]
- Plagiarism on its own is not a crime, however, plagiarism is punishable in a court of law for biases caused by copyright infringement and violation of moral rights.

1.2 Plagiarism vs Copyright Infringement

- Plagiarism is not the same as copyright infringement, however, the two concepts overlap to a certain extent, but they are not equivalent.
- **Copyright infringement** is a violation of the rights of a copyright holder and is defined by copyright law but many types of plagiarism do not constitute copyright infringement.
- False claims of authorship generally constitute plagiarism regardless of whether the material is protected by copyright or not

Copyright infringement

- Copyright infringement occurs when any material whose use is restricted by copyright is used without consent.
- In academia, plagiarism is about obtaining academic credit through false claims of authorship.
- Thus, plagiarism is considered a moral offense against the plagiarist's audience (for example, a reader, listener, or teacher).

[2] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 235
[3] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 234

2.0 Types of Plagiarism

- Various types of plagiarism exist and all are serious violations of honesty. The most common types of plagiarism are: -

1. Direct Plagiarism

- Direct plagiarism is copying sections of someone else's work word-for-word, without attribution and without quotation marks.
- This deliberate plagiarism of someone else's work is unethical, academically dishonest, and grounds for disciplinary actions, including expulsion.

2. Self-Plagiarism

- Self-plagiarism occurs when one picks his or her own previous work, or mixes parts of previous works, and submits it somewhere else without permission from **all** parties involved in the different scenarios. An example, a student incorporating part of a term paper written in high school into a paper submitted in a university course.
- Self-plagiarism also applies when the same piece of work is submitted as assignment responses in different classes without previous permission all the lecturers/tutors involved.
- Reusing significant, identical, or nearly identical portions of one's own work without acknowledging that one is doing so or citing the original work is sometimes described as "**self-plagiarism**" or "**recycling fraud**"[4]
- Self-plagiarized articles are often referred to as **duplicate or multiple publications**.
- Plagiarism can bring up a copyright issue if copyright of the prior work has been transferred to another entity.
- **Self-plagiarism** is considered a serious ethical issue when someone claims that a publication consists of new material and we covered copyright issues in week 4
- Self-plagiarism occurs when authors reuse portions of their own published and copyrighted work in subsequent publications, but without attributing the previous publication.
- Identifying self-plagiarism is often difficult since **limited re-use** of material is accepted both legally (**fair use**) and ethically as with copyrighted material
- Check these conditions for fair use in week 4 material

[4] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 235

3. Mosaic Plagiarism

- Mosaic Plagiarism occurs when a one borrows a phrase(s) from a source without using **quotation marks** or when one finds **synonyms** for the author's sentences/words while keeping to the same structure and meaning of the original sentences.
- Sometimes Mosaic plagiarism is referred to as "patch writing,"[5]
- This is a type of paraphrasing, **whether intentional or not**, is academic dishonesty and is punishable – even if someone footnotes the source(s)

4. Accidental Plagiarism

Accidental plagiarism occurs when a person: -

i. does not cite their sources, or

ii. mis-quotes their sources, or

iii. unintentionally paraphrases a source by using similar words, groups of words, and/or sentence structure without attribution.

- Information users like researchers must cite their sources and take careful and accurate notes when doing their research.
- Lack of intent does not absolve anyone of plagiarism consequences.
- Like any other plagiarism, accidental plagiarism is taken seriously in all fields – both academic and industry. Accidental plagiarism is subject to the same range of consequences as other types of plagiarism.

[5] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 236

2.2 Other Issues related to Intellectual Property rights

2.2.1 Reverse Engineering

- This involves breaking down something in order to understand it, build a copy of it, or improve it. Reverse engineering is applied to computer hardware as well as to software.
- In systems, the process involves analyzing systems to create a new representation of the system in a different form or at a higher level of abstraction[6].
- Reverse engineering starts by extracting design stage details about an information system, which are more abstract and less defined than program code.[7]
- Software reverse engineering entails modification of applications running on one vendor's database to run on another vendor's database. This action is considered unethical in the IT profession since the software user does not actually own the right to the software raising a number of intellectual property issues
- Compilers or de-compilers are reverse-engineering tools that can read machine language to produce the source code. These can reveal a competitor's program code, which can then be used to develop a new program that either duplicates the original or interfaces with the program[8].
- Therefore, reverse engineering provides a way to gain access to information that another organization may have copyrighted or classified as a trade secret.

[6] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 237

[7] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 237

[8] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 236-237

2.2.2. Open Source Code

- Open source code is any program whose source code is made available for use or modification by **som**e software developers.
- Open source code helps improve software since many programmers can read, redistribute, and modify a program's code.
- Open source code programs can be modified to meet new user requirements and rapid identification and fixing of software bugs/errors. This process produces better software compared to the traditional closed source code[9].
- When software developers put programs into the public domain with no copyright, they make them open source. This allows people to share the program, their improvements and at the same time allow others to revise the original code, distribute the resulting software as their own proprietary product.
- Use of **open source licenses** allow users receiving the modified programs to have freedom associated with the original software.

2.2.3. Competitive Intelligence

- Competitive intelligence is about gathering legal information to help a company gain an advantage over competitors.
- Many companies have employees who monitor the public announcements to detect expansions of competitors.
- This is different from ***industrial espionage*** which entails use of illegal means to obtain other business's information which is not available publicly.[10]
- The process of gathering competitive intelligence can translate into industrial espionage and dirty tricks. An example of a dirty trick is going to a bar/drinking joint near a competitor's location, striking up a conversation with people to gather information after their reasoning has been compromised by alcohol.[11]

[9] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 237
[10] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 238
[11] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 239

- An effective competitive intelligence program requires controlled gathering, evaluation and distribution of information to decision makers.[12]
- Competitive intelligence is often part of a company's strategic plan and executive decision making.[13]
- IT professionals engaging in competitive intelligence should be ethical and avoid illegal actions, such as lying, misrepresentation, theft, bribery, or eavesdropping with illegal devices while gathering information.

Content Covered in Week 5: Plagiarism

We have been able to cover the following:

1. Defined Plagiarism
2. Described the types of plagiarism
3. Compared and contrasted plagiarism with copyright infringement
4. Described other issues related to IP rights e.g. reverse engineering and open source code

Course Text Books

- Professional Issues in Information Technology. Bott, F. *British Computer Society, UK.* (2005)
- Ethics in Information Technology, 4th ed. Reynolds, G. *Course Technology, Boston, USA.* (2011)
- Computers in Society: Privacy, Ethics and the Internet. George, J.F. *Pearson Prentice Hall, New Jersey.* (2004)
- Cyber-ethics: Morality and Law in Cyberspace, 5th ed., Spinello, R.A. *Jones & Bartlett, Burlington, Mass., USA.* (2013)
- Contemporary Issues in Ethics and Information Technology. *Schultz, R.A. IRM Press, USA.* (2005)

[12] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 238
[13] Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 239