OPEN UNIVERSITY OF TANZANIA (OUT)

Digital Fluency Course

Module 4: Academic Integrity in a Digital Age

This is the fourth in a suite of 5 openly licenced Digital Fluency modules developed at OUT in collaboration with OER Africa to address the needs of Academic staff in the 21st Century.

Preamble: What do we mean by Digital Fluency? Who should develop this skill, and why?

Our *motivation* for developing this course is to enhance the capacity of Academic staff in Higher Education Institutions in sub-Saharan Africa to increase confidence and competence in selecting and using appropriate digital technologies in an informed and manner within their work environment.

The *aim of the course* is to progress beyond the conventional notion of digital or computer literacy – we would like to support you to become 'fluent' in the digital workplace. The notion of fluency is often associated with language or numeracy skills development – we now also recognize its importance in preparing to engage in a digital world. The move from literacy to fluency encompasses effective and ethical online communication, good quality resource creation and curation, knowledge co-construction, and an understanding of using these abilities to 'open up' education – with all these elements becoming increasingly standard and effortless over time.

The *overall objective* is to develop an ability to comfortably and ethically use digital technologies incorporating a variety of media types, both on- and off-line, to support your teaching and learning, research, and academic administrative duties. We believe that our 5 modules (Digital Fundamentals, Working with OERs, Learning Design and Development for Online Provision, Academic Integrity in a Digital Age, Storage and Access of Digital Resources) shared openly, will support you in your journey towards this goal.

At the start of this Digital Fluency course you may like to reflect on your motivation for engaging with one or more of these 5 modules and ask questions such as:

- What do I hope to achieve personally by engaging with this course and its modules?
- To what extent are digital technologies and OER currently being used at my institution?
- Does my institution have Policies and Strategies in place for Quality Assurance (QA), ICT, eLearning, Intellectual Property (IP) and Open Educational Resources (OER)?

You should revisit these questions as you work through the modules, and perhaps even volunteer to serve as a champion in effecting positive transformation towards embedding and/or informing related Policies, Strategies, and Practices at your institution and beyond.

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Course Code: ODF001
Course Name: Academic Digital Fluency
Module Number: 4
Module Name: Academic Integrity in a Digital Age

Module Description

This is the fourth module in the Digital Fluency course for academics. In this module learners will be introduced to issues related to academic integrity, which has become a matter of increasing concern in the digital age. Use of Information and Communication Technologies (ICT) has been widely embraced, and much information and many resources are readily accessible through the internet. However, these available resources may be licensed or copyrighted in a variety of ways, and adhering to this may cause challenges in ensuring academic integrity in higher education. Although the promotion and use of licensed Open Educational Resources (OER) goes some way towards mitigating this challenge, attention needs to be paid to the user's behaviour when dealing with any resource, data, or information, whatever its associated licensing.

Teachers and learners should be supported in employing newly acquired digital skills in an efficient, effective, and appropriate manner within an academic environment. This module is intended to stimulate ethical thinking and behaviour, and promote good practice in evaluating and using available resources to create quality scholarly reports and academic resources. In order to promote academic integrity, this module has been designed to provide learners with the opportunity to obtain hands-on experience via a series of practical activities.

Module Learning Objectives

Upon completing this module, learners are expected to have developed skills and knowledge related to:

- exploring the concept of 'academic integrity';
- examining issues related to intellectual property rights in academic settings;
- identifying and creating strategies to promote academic integrity; and
- exploring data and information privacy.

Module Topics, Teaching and Learning (T&L) Media, and Schedule

Topic #	Topic Name	T & L Media	Expected Schedule
0	**Startup week:** participants verify their access to the virtual learning environment (VLE).	VLE; video; discussion forum; download linked spreadsheet	At least 1 hour: access the VLE, introductions, and orientation.
1	Introduction to Academic Integrity	VLE; video; discussion forum; blog; external websites	At least 6 hours' engagement over a 1 week period.
2	Intellectual Property	VLE; video; discussion forum; blog; quiz; internet search engine	At least 6 hours' engagement over a 1 week period.
	Consolidation Break (enables reflection and catch up)		1 week
3	Promoting Academic Integrity	VLE; video; discussion forum; assignment upload; blog; word processor	At least 6 hours' engagement over a 1 week period.
4	Data and Information Privacy	VLE; video; assignment upload; drawing tool; blog;	At least 6 hours' engagement over a 1 week period.
	Wrap up week: participants complete outstanding activities; goodbyes. Digital certificates and open digital badges are awarded.	VLE, discussion forum.	Ensure that all required activities are completed for certification.

Assessment Plan

Depending on the purpose of offering this module, Module 4 could be assessed using formative and summative forms, as indicated below.

Formative assessment	Summative assessment
Level of learner interaction	Portfolio (formative 60%)
Self-assessment	Final assignment (40%)
Quizzes	
Activities as specified	

Module Evaluation

A module evaluation should be conducted during and after each instance of running the course to effect improvement.

Certification/ Accreditation

Completion of 80% of module activities contributes to an award / certificate and/or digital badge.

If this course is offered formally by the Open University of Tanzania (OUT), completion will result in module credit towards the Digital Fluency course.

Acknowledgements

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Topic 1: Introduction to Academic Integrity

Introduction

The choice of the word “integrity” is deliberate and due to its broad and holistic nature. Integrity is a term used to describe a good person in different contexts, including in the classroom, in research, in the community and in their profession. In our daily academic life there are many challenges associated with academic integrity. Students and researchers alike may at times find themselves “cheating”. It is more common than we would like to find students looking for someone to do assignments for them, cheat in examinations, or copy and paste elements of the research work of others without acknowledgement. The effect of cheating is far-reaching, to the extent that society finds itself surrounded by irresponsible citizens, some of whom progress through their studies dishonestly and are later found holding senior and influential positions.

The questions then are: how do we ensure academic integrity in the era of freely available online resources? What is the role of academic institutions in ensuring academic integrity is enhanced in their practices? What is the role of ICT in making sure that academic integrity is enhanced?

In this topic, the learner will be introduced to the concept of academic integrity, explore the values of academic integrity, and the role of courage in academic integrity. You may like to start this topic by viewing the video (3m50s) What is Academic Integrity and Academic Dishonesty? (Mercy College of Ohio, 2015).

Topic 1 Learning Objectives

Upon completion of this topic you are expected to be able to:

- understand what consitutes academic integrity;
- describe the values of academic integrity; and
- explain the role of courage to enhancing academic integrity.

1.1 The Concept of Academic Integrity

Integrity is broader than simple honesty; it implies all the principles, values, and behaviours that contribute to good character, including honesty, fairness, respect, trust, perseverance, responsibility, and courage (Fishman, 2014; Edussuriya et al , 2014). Academic integrity creates valid opportunities to share knowledge, create new knowledge, interact with other professionals with ease, and enables learners to commit to excellence and to become scholars (Fishman, 2014).

Cheating is just one form of violating academic integrity. According to Strittmatter & Bratton (2014), dishonesty, if accepted, can be later be practised at different times and in different situations. As such, dishonest behaviours that started in secondary school can be continued in college; likewise, students who are engaged in academic dishonest behaviours in college tend to

engage in dishonest acts in the workplace. Strittmatter & Bratton's (2014) argument implies that higher education institutions (HEIs) inherit dishonest cases, and thus need to be more serious in identifying and ending such malpractice, so the community is not affected. The question then is: do universities have strategies to root out dishonesty? If not, what are the ways to build and sustain a community of integrity?

The violation of the principles of academic integrity is a social problem, and is not unique to the education sector. Other notable sectors that may suffer from lapses in integrity include health, justice, infrastructure, land, and governance. Institutions providing education services are required to promote academic integrity, and failure to do so results in increased ethical challenges, not only in the educational sector, but society as a whole.

Academic integrity is about the acknowledgement of, respect for, and adherence to academic principles to ensure that: everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments; all student work is fairly evaluated and no student has an inappropriate advantage over others; the academic and ethical development of all students is fostered; and the reputation of the institution for integrity in its teaching, research, and scholarship is maintained and enhanced. Failure to uphold these principles of academic integrity threatens both the reputation of the university and the value of the degrees awarded to its students. Every member of the university community, therefore, bears a responsibility for ensuring that the highest standards of academic integrity are upheld so that they can be integrated into society through the process of teaching, research, and community interaction (Roberts & Hai-Jew, 2009; Langa, 2013).

1.1.1 Academic Integrity in the digital age

The digital age is characterised by the use of ICT tools for instant communication, information processing, and sharing of digital resources. For students, this is an era where resources are freely available online, without them necessarily having the wisdom to check the licensing permissions (Roberts & Hai-Jaw, 2009; Ahmed & Ullah, 2015).

While the use of digital devices is associated with an increased number of cases of dishonesty, these devices are crucial to support the provision of education, especially to distance learners. We are witness to increased availability of online learning, including Massive Open Online Courses (MOOCs); use of learning management systems; and the distribution of course materials via the internet. Education providers and learning facilitators should be free to take advantage of these positive affordances of ICTs, while esuring that they are not a catalyst for dishonesty.

The presence of digital devices, such as mobile phones, tablets, modern scientific calculators, microphones, and wireless receivers for information transfer and retrieval, has increased the opportunity for academic dishonesty (Thomas, 2015; Edussuriya et al, 2014; Cruz et al, 2015; Exposito et al, 2015). Students writing examinations can text someone outside to obtain answers and, with the emergence of sophisticated mobile phones, a student can download information

from the internet through wireless connections. On the whole, the increase in cases of academic dishonesty is attributed to the ease of use of technology.

Activity 1: Develop an understanding of Academic Integrity

Aim: To explore and enhance your understanding of academic integrity.

Motivation: To build up your expertise in recognising aspects of academic integrity in higher-education institutions.

Task: In discussion with others, explore the concept of Academic Integrity.

Duration: 60 minutes

Tool: Discussion forum

Questions to be discussed:

- What do we mean or understand by "academic integrity" in the context of higher education?
- How will we ensure that we uphold academic integrity in higher education institutions?
- What are the effects of not observing academic integrity on individuals, academic institutions, and broader society?
- Identify concerns about the use of technology leading to academic dishonesty.

What to do:

- Form a group of three to five people at your institution.
- Discuss the above questions.
- Record the responses and collate into a structured document.

How:

- Contribute your group's responses by attaching your document to your post to the discussion forum.
- Although only one person will submit the response, make sure that you include the names of ALL the group members.

Feedback/Response: (peer review)

- Read and respond constructively to at least one other person's contribution.
- Read the other people's responses to your own contribution.
- This will enable us to work towards a common understanding of academic integrity in higher education.

Assessment:

- Completing this activity will count towards your course portfolio.

1.2 Values of Academic Integrity

What are the values of academic integrity? In academia, integrity sets a foundation for success and growth in becoming a good professional in the workplace. It prepares learners for personal and professional challenges they might be facing in their daily life during and after the learning process (Fishman, 2014; Edussuriya et al, 2014; Resurreccion, 2012).

Academic integrity involves a commitment to the fundamental values of honesty, trust, fairness, respect, responsibility, and courage within all academic endeavours (Fishman, 2014). The questions then are: in which ways are academic-integrity values dishonoured? What facilities this dishonesty? Are these values relevant only in higher education? Answers to these questions are complex and multifaceted.

Academic institutions flourish when they observe the values of academic integrity. Within academic institutions, it is common to find lists of behaviours that are prohibited, and their consequences stated upfront. When these values are implemented, they support a change in learners' behaviour that facilitates academic communities to translate ideals into action.There is no doubt that institutions will lower their reputations if they display poor implementation of the five fundamental values of academic integrity in their goals of teaching, learning, and research. (Fishman, 2014)**.**

1.2.1 Honesty

Academic honesty can be said to underpin respect for and the development of knowledge (Fishman, 2014; Edussuriya et al, 2014). As such, academic staff should be honest in their research and in dealing with other staff and with students. Students need to be honest with themselves and with others in their personal ambitions, study, and in their involvement in the assessment process. Being honest is a personal choice not to lie, steal, cheat, or deceive in any way. Honesty is about telling the truth, whereas integrity is about the validity of the truth. During knowledge seeking, students and staff have to be honest to each other (Fishman, 2014; Langa, 2013). Honesty is deemed crucial ground for ethical behaviour in various contexts, including the academic sphere (Langa, 2013).

In the academic arena, punishment for being dishonest might include an individual losing their academic certification, or an academic institution losing its reputation. Coversely, honest people in an organisation will ensure that their organisation gains and maintains a good reputation. In academic institutions, honesty is a prerequisite to the other four values. In academia, academic integrity is about truth and knowledge, and thus requires intellectual and personal honesty in learning, teaching, research, and services.

Cultivating a culture of honesty in universities lays the foundation for lifelong integrity. In universities, therefore, there is a need for policies and practices that send a clear message that providing false information, false data, lying, cheating, theft, and other dishonest behaviour are unacceptable. This is a necessary step in establishing communities of trust.

1.2.2 Trust

Honesty fosters the development of trust. Trust is a belief that someone or something is reliable, good, honest, and/or effective. Trust is a reliance on the integrity, strength, ability, and/or surety of a person or a thing. Trust also refers to confidence in something or a particular person. In academia, there are many instances of knowledge and skills exchange. These should always be

conducted through mutual trust. It is when there is trust that the free exchange of ideas can be encouraged, fostered, and supported.

Trust enables researchers and academics to collaborate, to share information, and to circulate new ideas freely, without fear that research reports or any of their pieces of work will be stolen by someone else, students' careers stunted, or staff and student reputations diminished. In academic work trust is essential, so that outsiders can be confident in the value and meaning of scholarly research, teaching, services, and the academic certification provided. It is trust that creates a fertile ground for co-operation, in which participants in an academic activity treat each otherwith fairness and respect, and expect to be treated in the same manner in return.

1.2.3 Fairness

It is common to hear the refrain "this is not fair". One aspect of fairness is that there is justice on both sides, or for both parties. Fair treatment is an essential element in creating ethical communities. According to Fishman (2014), components of fairness include predictability; transparency; and clear, reasonable expectations. It is important to note that a consistent and just response to dishonest breaches is an element of fairness. In the case of academic integrity, fairness refers to having clear, transparent expectations; standards; and practices to support fairness in the interactions of students, teachers, and administrators. All members of the academic community require fair treatment. Students play fair when they work and maintain the reputation of the academic institution; acknowledge other authors in their academic work; and when they adhere to integrity policies. Teachers are fair when they communicate expectations clearly; respond to dishonesty consistently; and uphold academic integrity. Fairness prevails when all services and interactions are conducted on the basis of respect.

1.2.4 Respect

According to Roberts and Hai-Jaw (2009), lecturers need to prepare students for how to connect themselves to the community through respecting autonomy, doing no harm to others, benefiting others, and being just. In academia we interact through debates, co-operation, collaboration, participatory learning, diverse values and ideas, diverse opinions, and disagreements, all of which should to be conducted with respect.

To create fertile ground for learning, research, and teaching, respect is a core value. Respect means acknowledging the worth and work of others when communicating with students and other researchers, writing academic papers, theses, and essays, and developing course materials. We refine our own academic work by accepting differences, and referring to and building on prevoius studies undertaken by others. Students show respect when they value and take advantage of opportunities to gain new knowledge by taking an active role in their own education; contributing to discussions, as well as listening to others' points of view, and performing to the best of their ability. Cultivating environments in which all participants show and enjoy respect is both an individual and a collective responsibility.

1.2.5 Responsibility

Responsibility is a term used in our daily life. It refers to a set of tasks or functions that employers, students, lecturers, professional bodies, courts of law, or other recognised bodies can legitimately demand. In the context of this course, responsibility refers to tasks or functions a student and a lecturer can legitimately demand within an educational environment. In some cases, responsibility can be the opportunity or ability to act independently and make decisions without undue consultation. Responsible individuals hold themselves accountable for their own actions, and work to discourage and prevent misconduct by others.

Academic assignments exist to help students learn; grades exist to show how fully this goal is attained. Therefore, all student work and all grades should result from the student's own understanding and effort. This places responsibilities on both students and the university staff. Students have the responsibility to fulfil academic tasks conscientiously and the lecturers have a role to teach and assess students' attainment of the goals set.

Holding oneself and others to high standards of integrity is often challenging: it requires courage. The responsibility to exhibit ethical conduct in research and other academic work belongs to academic leaders to foster a responsible educational environment.

1.3 The Role of Courage in Academic Integrity

How does courage play a role in developing and sustaining academic integrity? What does it take to ensure people and/or institutions practice and provide services with integrity? To develop and sustain the academic integrity of an institution, it takes more than simply believing in the fundamental values. One needs to develop strategies leading to translating the values from talking points into action. Standing up for integrity and values in the face of pressure and adversity requires determination, commitment, and courage. For students, it is important to be aware of academic integrity, and accept the consequences of their own actions.

Courage is not a fundamental value, but a quality or capacity. In many communities, courageous people are misunderstood as lacking fear, whereas in fact, they may have the capacity to act in accordance with their values, despite fear. Courage is a character trait that allows people to commit to the quality of their actions by holding themselves and others to the highest standards, even when doing so involves the risk of negative consequences or reprisals.

Courage should be developed in tandem with one's professional development because develops in an environment where it is tested. Academic integrity, necessarily includes opportunities to make choices, learn from them, and grow, and through this iterative process, courage, honour, and integrity can develop as interwoven and mutually dependent characteristics. Students and staff who display courage in pursuit of integrity not only become role models, but also increase standards for learning and scholarship.

According to Füzér (2016), courage is the first human quality, and guarantees all the others. This indicates a need to develop strategies towards creating a culture of integrity at academic institutions. To achieve this, academic institutions need to develop strategies where community members should be responsible for creating opportunities for others to develop qualities of integrity. It is important for members of academic communities to learn not only to make decisions with integrity adhering to values, but to display the courage necessary to follow their decisions with action. Only through the exercise of courage is it possible to create and maintain communities of integrity that are strong enough to endure, regardless of the circumstances.

Activity 2: Values of Academic Integrity

Aim: To explore your understanding of academic values in respect to higher education.

Motivation: To build up expertise in practising academic integrity values.

Task: Read about and reflect on academic integrity values.

Duration: 110 minutes (1 hour 50 minutes)

Tools: Discussion forum; internet search engine (for example, Google)

Questions for Reflection:

- How do academic integrity and values differ from courage in higher education?
- How can higher-education institutions promote academic integrity and values among their members?
- What are the effects of not observing academic integrity and values in your higher-learning institution?

What to do:

- Please start the task by searching for recent (2010+) papers on academic honesty using web search engines.
- Guided by the questions provided, discover what others understand to be the meaning of academic integrity and values.
- Keep an eye open for practical examples or case studies.

How:

- You may undertake this exercise individually, or in pairs.
- Make a list of the relevant papers you found, and record the internet sites from which you accessed them (URL).
- Please write a summary of the findings from at least one of the papers.
- You should include notes on particular aspects to which you would like to draw the group's attention.
- Share your results and the findings on the group discussion forum.

Feedback/response: peer review

- Take a look at the forum contributions describing the other participants' findings.
- Reply and comment on at least one other participant;s review comments / findings.

Assessment:

- Completing this activity will count towards your course portfolio.

Reflection

Please use the Moodle course blog facility to reflect on your experiences and engagement with this week's topic guided by the following questions: (30 minutes)

- Describe how what you have learned here assists you in achieving your academic goals?
- How does integrity influence the social and academic development of an individual?
- How can one capitalise on strengths and overcome weaknesses to become a person of high integrity?

Summary

In this topic you were introduced to the concept of academic integrity. Academic integrity has diverse meanings; however, the most important factor in building integrity is creating communities of integrity. It is common to find integrity being violated in our communities, and those who commit such violations are learned persons. Some examples of violations of academic integrity have been discussed. These violations of academic integrity mirror what happens in the community. There is a need, therefore, for university and college community members to develop courage in implementing academic integrity.

Review Questions

1. Which types of violation of academic integrity have you encountered?
2. What is the single most effective initiative your institution could undertake to promote academic integrity and reduce academic dishonesty?
3. Describe five principles of academic integrity.
4. Describe factors contributing to the increase in academic dishonesty in HEIs.
5. Propose strategies and actions for enhancing academic integrity in higher-education institutions.

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Topic 2: Intellectual Property

Introduction

This topic is designed to equip you with a general overview of Intellectual Property (IP) in academia. It begins with a short explanation of basic IP concepts, followed by how to identify items that are protected by copyright and those that are not, and explore the role of IP in Open Educational Resources (OER) (see Digital Fluency, Module 2) and Open Source Software (OSS). We conclude by looking at aspects of IP in academia, as well as the effect of Information and Communication Technologies (ICT) development on Intellectual Property. Start by viewing the video (4m32s) Copyright, Creative Commons & Fair Use (TCE, 2016).

Topic 2 Learning Objectives

Upon completion of this topic you are expected to be able to:

- explain the meaning of Intellectual Property;
- be aware of basic IP concepts and principles;
- be familiar with OER, OSS, and related IP protection; and
- explain Intellectual Property protection in the context of ICT development.

2.1 Intellectual Property Basics

Intellectual Property refers to all intangible creations of the mind such as “inventions; literary and artistic works; designs; symbols; names and images …” (WIPO, n.d.a). Reasons for protecting IP include the encouragement and protection of creative endeavours and technological inventions. These creations are protected in law and are divided into two categories, namely industrial property and copyright, of which the latter is of interest within the education sector.

As creativity is a crucial component in education, there is a need to develop an undertanding of IP in the academic context, which is why most dissertations and academic books are copyrighted although some are now using open licensing such as Creative Commons. IP can be protected in different ways including copyrights, patents, trademarks, industrial designs and geographical indications, and trade secrets. The IP protection is governed by the types of items that are being protected, the duration of the protection, the geographical areas where the protection extends, and the time from which the protection is made available. The area that most concerns us as academics is that of copyright.

2.1.1 Copyright

Think of the opening pages of a dissertation or a thesis, especially the section on copyright. Have you ever thought why a dissertaion needs to include copyright? In books, we see the ISBN number. Have you ever thought why books have an ISBN?

In our daily lives we often hear about people owning rights to original works such as novels, music, computer programs, and newspaper articles. If other people want to use, reproduce, copy, or distribute any of these works, they need to obtain permission from the owner of the original work. The owners of these works have the right to control the ways their work can be distributed through copyright ownership. Copyright is a legal term used to explain the rights that originators have over their literary and artistic works. Generally, it is said that copyright protects the expression of ideas (for example, text and illustrations), while the ideas alone are not protected.

For a work to gain a copyright protection it has to be original, and should be conveyed in a certain fixed format, for example in writing, whether in paper form or electronic. However, that ownership can be transferred to another person, and that person then becomes the new owner. It is only the owner who can grant permission to use his or her work; legally this permission is known as license. Table 1 shows some copyright symbols.

Table 1 Copyright Symbols

	Symbol	Rights Statement
Copyright		All rights reserved.
Copyleft		All wrongs reserved.
Creative Commons		Some rights reserved.

Copyleft may be a concept and symbol that is unfamiliar to you. It is a play on the word copyright, and originally specially referred to sharing programming code under the GNU General Public License (GPL), and is now aligned with the Creative Commons Attribution Share , Alike licence (Copyleft.org, n.d.). You are encouraged to explore the various Creative Commons licence conditions and permissions either in Module 2 (Working with OER), or on the Creative Commons licensing page. In addition, you can refer to the Saide (2012) Copyright and Licensing Toolkit.

The duration of a copyright applied to a creative work depends on a number of factors, including the type of work in question, whether the work is published or unpublished, whether the originator is known or unknown, and whether the conversion arrangements from previous copyright registration apply. Computer-generated works copyrights expires 50 years from the end of the year in which the work was made, while typographical arrangements of published versions lasts only for 25 years from the first publication. Generally, most works' copyrights are covered by the lifetime of the author, plus 50 years after death. Copyright is governed by both international conventions such as the Berne Convention and WIPO Copyright Treaty, but also national laws, such as Copyrights and Neighbouring Rights Act, 1999, in Tanzania.

2.1.2 Patent

A patent is a right granted by the government to the owner of a certain creation that prevents others from making, using, trading, or selling the creation without his or her permission (UNESCO, 2015; Prabhala, 2010). A patentable creation can be a product or a process that provides a new solution to a problem, a way of doing things, or a technical enhancement on how certain things work. Patents are awarded to a person who then becomes the owner of that creation. In education, patents are all about providing exclusive rights to new invention with a view to increase the pace of invention through motivation and competition (Vairis & Petousis, 2015), as people compete on a fair playing field to increase access to technology, knowledge, and skills about new ideas and or inventions. In the case of technology, patents can be granted to products made in a certain country to increase innovation, as something might be new in a certain country, but not new in the world. The duration of a patent, often known as the "term of protection", generally refers to a period of 20 years, counted from the filing date. The main benefit of patents is excluding others from using the innovation without the owner's permission. Corporations and individuals have become rich because of patents. Think of companies such as Apple, Nokia, Facebook, Alibaba, Coca-Cola, and many others. Patents are governed by international conventions, including the Paris Convention, the Patent Cooperation Treaty, and national laws, for example, The Patents (Registration) Act of the United Republic of Tanzania (1987) as registered on the WIPO website.

Activity 3: Exploring the concept of Intellectual Property

Aim: To become familiar with Intellectual Property basics.

Motivation: To build up expertise in Intellectual Property

Task: This needs to be explained, briefly

Duration: 75 minutes

Tool: Discussion forum

Resources:

- What is Intellectual Property? (Quinn, 2014)
- What is Intellectual Property? (WIPO, n.d.b)

Guiding Questions:

- What do we mean by the term Intellectual Property rights?
- What are the benefits of Intellectual Property rights to individuals, community, academic institutions, and businesses?
- How can we ensure that we uphold Intellectual Property rights in education?
- What are the effects of not observing Intellectual Property rights for individuals, academic institutions, and society in general?

What to do:

- Use the given resources as a starting opint to help you address the questions.
- Find and document at least five more resources that will help contribute to your

	undertanding of Intellectual Property rights. • Compile your responses to the questions in a structured document. **How:** • Discuss the above questions with other staff at your institution. • Contribute your individual response by attaching your document to the discussion forum. • Within your post, list the additional useful resources that you have found making sure to provide the URL. **Feedback/response**: (peer review) • After you finish this activity, read the contributions of others posted on the discussion forum. • Reply and comment on at least one other participant's review comments or findings. **Assessment:** • Completing this activity will count towards your course portfolio

2.2 Trademarks, Industrial Designs, and Geographical Indications

When writing and publishing academic work, we use copyright, which protects the work of authors, artists, and musicians. According to Prabhala (2010): "Scientists and engineers, on the other hand, will typically have their inventions protected by a patent. Corporations that have invested in creating a brand can be protected by trademarks, while their business plans could possibly be protected as trade secrets. The work of product designers falls under a system known as industrial designs." In this section, we look at trademarks, industrial designs, and geographical indications, and link them to the education industry.

A trademark is defined as a recognisable sign, design, or expression, which is used to identify products or services of a particular provenance. It can be a word, name, symbol, or device, or any combination, used, or intended to be used, in commerce to identify and distinguish the goods of one manufacturer or seller from goods manufactured or sold by others. It is important to note that most of these definitions rely on conventional trademarks, however, recently there have been unconventional marks, where smell, colour, and sound are also protected as part and parcel of trademarks. Trademarks are also used to protect computer-related objects. These may include corporate brands and operating-system logos. In academia, the logo or badge of a higher education institution is usually a protected trademark.

How and where are such symbols used in the education sector? In the trademark classification, education services are classified in Class 41 of the Nice Classification Tenth Edition - General Remarks, Class Headings and Explanatory Notes - Version 2012, as detailed below. (WIPO, n.d. c)

> **"CLASS 41: Education; providing of training; entertainment; sporting and cultural activities.**

Explanatory Note

Class 41 covers mainly services rendered by persons or institutions in the development of the mental faculties of persons or animals, as well as services intended to entertain or to engage the attention.

This Class includes, in particular:

- services consisting of all forms of education of persons or training of animals;
- services having the basic aim of the entertainment, amusement or recreation of people;
- presentation of works of visual art or literature to the public for cultural or educational purposes."

Trademarks are registered to enforce rights. When registering a trademark for goods or services, businesses are effectively gaining a legal monopoly of their marks, which gives them the advantage of adding value to the business because it can be used to protect their market share, and can also be licensed to third parties, such as a franchisee, or sold outright for a specified value. Once it is acquired, a trademark needs to be renewed every 10 years. Trademarks are governed by international conventions, such as the Paris Convention and the Madrid Protocol, and national laws such as the Tanzanian Trade and Service Marks Act.

To be protected, industrial designs must be registered under industrial design law, or they can be protected as unregistered design or as a work of art under copyright law; this depends on the relevant national law and the type of design. Generally, an industrial-design protection is limited to the country in which the protection was granted.

Geographical indications are used protect goods that have a specific geographical origin, and possess qualities, reputation, or characteristics that are attributable to their place of origin. For example, agriculture products have qualities that are derived from their place of production and are influenced by specific local factors, such as soil and climate. In education, there may be an invention of a teaching resource that used in a specific locale; in this case, protection can sought through the use of relevant laws. Most countries have a range of local products that need to be protected globally, as per the concept of geographical indications, for example basmati rice, rooibos tea, and champagne.

2.3 Intellectual Property in Academia

Although academic freedom is a fundamental right, within this framework the issue of academic integrity should be emphasised. Due to the increase in internet usage, students are exposed to extensive resources that could result in them acting without due attention to permissions of reuse. Universities and other public research organisations worldwide need to protect their inventions and creative work so as to help and encourage those starting out in academia.

The arguments for university IP protection should be viewed in the context of a broader policy framework aiming at fostering greater interaction between public research and industry to increase the social and private returns from public support for research and development. It is widely assumed that the legislative scheme governing organisational ownership of copyright and inventions applies across the board, including in the context of academic employers. The result is that universities are assumed to own the copyright of the lectures, books, musical scores, research notes, and other works created by academic employees in the course of their employment, along with any innovative methods or products that they invented. This assumption is reflected in the Intellectual Property policies of most universities, and in any technology-transfer initiatives which those policies support.

At this stage you may like to take a look at the contact you signed upon entering your institution – does it specifiy who owns the IP of your creations while in their employ?

2.3.1 Intellectual Property and Open Educational Resources

There are two important issues when discussing Intellectual Property (IP) and Open Educational Resources (OER). The first is about restrictions, and the second is about openness. The question is who owns the IP of a particular work, and what implications this would have in the OER environment (McGill, 2013).

While learning about OER, it is important to start by differentiating OER and non OER platforms. Examples of OER platforms and repositories are provided by ROER4D (2016). If you visit some of these sites that provide OER, and then visit commercial education sites of your choice, you may notice a difference between the permissions of reuse.

OER are educational materials that are free to use and reuse (Butcher, 2015). These materials can be used for learning, teaching, and research and have been released under an Intellectual Property license (usually Creative Commons) that permits the free use and re-reuse by others under certain consitions specified by the creator of the work. OER may include full courses, course materials, modules, textbooks, videos, tests, experiments, software and other tools, materials, or techniques to support access to knowledge.

While these materials are available free of charge, a number of legal aspects should still be considered. Normally the people who release these materials are the people who own or created them. Where the materials also include substantial extracts from other sources, such as quotations from books and journals, images, interviews with academic and experts, and so on, these extracts are made available under licence. The inclusion of third-party material in OER content, data protection, liability for inaccuracy or illegal content, and accessibility of information are the most important aspects to be considered when releasing materials on public platforms. Creative Commons (CC) is among the organisations that provides licences that permit reuse free of charge, under certain conditions. You can learn more about OER and Creative Commons licensing in Module Two of this course, Working with OER.

2.3.2 IP and Open Source Software

When preparing Open Educational Resources, choosing a platform with the necessary functionality is important. If one is making materials freely available online, how users access these materials is an issue to be considered. In this topic we will discuss about intellectual property and open-source software.

According to the William and Flora Hewlett Foundation (2016), "OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge". Thus, for OER to achieve their purpose, they should be published on a software platform that itself is not limited by issues of access. It is the choice of which software to use that will support the materials' creator in creating the material effeciently, as well as ensure that materials are formatted in such a way that they can be distributed, used, and reused.

Software is a general term for various kinds of computing programs (systems and applications) used to undertake specific digital processing tasks. If someone develops software, then the source code underlying that software is a type of Intellectual Property. In software development, one should always make sure that agreements or contracts specify who will own the Intellectual Property that results from the development of that software. Computer software is also protected by copyright law, which gives the owner of the work certain rights over it, and makes it illegal for others to use without permission or payment, as applicable. In the era of OER, it becomes challenging when there are free materials available, but one does not have the software to access the learning resources.

Open source software (OSS) refers to software for which the source code (the underlying programming code) is made freely available for use, that is, reading the code, changing it, or developing further versions, including adding amendments to it (Lochhaas & Moore, 2010; Daniel, 2006). According to GNU.org (2016): "Free software means software that respects users' freedom and community. Roughly, it means that the users have the freedom to run, copy, and distribute the software ... Thus, 'free software' is a matter of liberty, not price. We sometimes call it 'libre software', borrowing the French or Spanish word for 'free' as in freedom, to show we do not mean the software is gratis."

Although open-source software is made available free of charge, its distribution is controlled by a licence,the most popular ones being General Public License (GPL) and Mozilla Public License (MPL). Despite the fact that open-source software is distributed without charge, it is still protected by copyright law and the author's and owner's right are fully protected.

There are many free and open source software application programmes that are useful and available at no cost for teaching and learning. See Module 3 for some examples.

Activity 4: Understanding IP licenses.

Aim: To familiarise yourself with the different types of Intellectual Property (IP) licences.

Motivation : To become aware of, respect, and adhere to IP licenses used in academic resources.

Task: This needs to be written out, briefly.

Duration: 60 minutes

Tools: Discussion forum

Resources:

- List of OER Platforms (ROER4D, 2016)

What to do:

- Browse through some of the OER Platforms and their resources on the ROER4D site, and take note of different types of licences used.
- Choose two differently licensed resources, and make a note of:
  - the topic and URL where it can be found;
  - to whom the course materials are attributed; and
  - what other permissions have been granted.

How:

- Work inidivdually for this activity.
- You may also use any other OER repository to search for your chosen resources.
- Upload your notes to the discussion forum.

Feedback: peer review

- After you finish this activity, please read at least one other person's contribution to the forum discussion, and respond to them.
- Take note of responses to your own post..

Assessment:

- Completing this activity will count towards your course portfolio.

2.4 IP and the Use of ICT

ICT plays a very important role in society, and has contributed to the advancement and simplification of information transfer. However, the growth of ICT has made the protection of IP challenging, as one can sometimes access information or resources on the internet, without necessarily having the permission to reuse them. Conversely, sometimes one can only access resources or programmes at a cost, thereby denying access to many who do not have the financial resources.

The use of ICT for accessign digital resources and transferring information from one place to another may have unintended consequences. Information can easily be copied, duplicated, redistributed, and sold for economic purposes. In an academic context, universities provide their staff and students with electronic access to resources they need to support the university's mission and vision, and teaching and learning, research, and administration. When accessing

these resources, the appropriate usage of online resources with respect to copyright law is encouraged, and the relevant institution and national policies should be made clear. Most institutions have an intranet that may be used to store resources that are available to their staffa nd students only, and not available to the general public.

Computer software can be used to facilitate sharing between computers. File-sharing software allows users to share content from their own computers and to connect to others using similarly configured computers, for the purpose of downloading or transferring electronic content. File-sharing technology is legal; however, as with many technologies, users can use this technology legally or illegally. Although the software itself has nothing to do with copyright infringement, the use of software to upload, download, and share copyrighted materials can violate the rights of the owner. This also applies to collaboration platforms such as DropBox and Google Drive, or producing and sharing copies of files via CD or DVD. It is the responsibility of all persons uploading, accessing, and downloading resources and informaion to ensure that they are doing to legally according to the licence of those resources.

With products and services being advertised online, this has raised the possibility of trademark infringements occuring online. It is good practice to review search engines' trademark protection policies, and enforce the law protecting your trademarks when you uncover acts of infringement. Take action as soon as you discover infringement and seek legal counsel from a qualified Intellectual Property attorney on how to proceed.

2. 5 Online publication

Making publications available electronically is increasingly commone. Many organisations are now evaluating whether they need to take their publications online, keep them in print, or opt for a combination of two. To understand who has something to gain or lose by adapting to online publications, it is necessary to understand the roles involved in the publication and the social infrastructure that are affected by changing publishing approaches.

The Infrastructure of publication

The publication process normally involves one or more of the following groups: authors, publishers, third party institutions, and users. When considering traditional publishing, the *publishers* serve as truthful brokers between *authors* who wish to disseminate their thoughts, ideas and knowledge and the *users* of those works (readers; learners; in general, interested parties). *Third party institutions* include the schools, professional organizations, research labs and companies with whom these authors are affiliated.

The emergence of the internet, especially the web is now challenging the relationships that existed between these parties. We can recall that previously publishers provided peer reviewed services of the authors' work they would like to publish. The author's peers in their respective discipline were recruited without pay, but through a reward system with the Institute they are affiliated to. This process has resulted in delay for publication of new findings, hence the rapid

information sharing is compromised, although the integrity of this process is assured. With the evolution of online publishing, authors work can now be published more quickly as the printing step is omitted. However the legitimacy needed by the third party institutions and the general audience of users is still a challenge. Online jounrals and publications need to be peer reviewed in the same way in order preserve legitimacy of the work. Informal publication online is also now prevalent, and should state upfront as to whether or not the work has been peer-reviewed.

The role of copyright

Copyright issues seem to be challenging when considering the world of online publishing. Copyright law is the concept that the authors own the materials they have invented in any tangible medium of expression from which it can be perceived, reproduced, or communicated either directly or with the aid of a machine or device. However, when considering online publication, this law seems to be overlooked. The ease with which authors can put their creations and inventions online and share with others can be in conflict with the rights emphasized by publishers. The issue is that publishers' control of the remunerative compensation of those works needs to be handled differently. In 2001, Creative Commons was founded with the intention of making information more easily accessible at no cost. Creative Commons have developed a set of machine-readable licenses that authors can use to share their work, one of which is to attribute to the orginal author. This has caused the publishing industry, who were the previous 'middle-men' to no longer have this work as a source of revenue.

Protecting / sharing online publications

The answer to the question: How can we protect the online publications from an unauthorised access? is two-fold. Either the author can make their work available at no cost using a reputable online journal enploying CC licences, or if going the proprietory route, the answer is simply protecting the jounral web page by using a password or subscription.

However, in online portals such as ResearchGate or Academia.edu, one is encouraged to share your research, but to adhere to the practice of fair use. This involves adhering to your publishers licensing guidelines, but also allows individual sharing on request with a particular colleague on the platform. So the difference would be those licenses that allow you to upload your full text on the platfroms mentioned or elsewhere (self-archiving), or those who permit you to simply upload your abstract and article details such as authors and where the article can be accessed. Some publishers, such as Wiley, have self-archiving policies within their online author services If you are not sure if you are permitted to share or upload your article, you can consult a service such as SHERPA/RoMEO that enables you to check if your article in a specific journal is shareable, and under what conditions. The service searches for the journal publisher's copyright policy and self-archiving guidelines. This is an extremely useful services for all researchers not only to seek guidance in sharing your articles legally, but also in ascetaining which journals wil enable you to share your research with the widest possible audience.

Activity 5: Global and Institutional IP policies

Aim: To become familiar with World Intellectual Property Organization policies on Open Source Software,a nd IP Policies at your own institution.

Motivation: This needs to be elucidated.

Task: This needs to be outlined.

Duration: 35 minutes

Tool: Discussion forum

Resources:

- World Intellectual Property Organization (WIPO) website: http://www.wipo.int/
- Your own institutional IP Policy, if it exists.

What to do:

- Undertake thi activity ndividually.
- Choose to either investigate WIPO OR your institutional IP Policy.
- Find out what the WIPO policy says about IP for Open Source Software; OR
- Establish what your isntitutional IP Policy states about your creations.
- Make a note of your findings.

How:

- Share your findings with the group by contributing to the discussion forum.
- Make sure to use the subject line of your post to indicate which option you are adressing.

Feedback: peer review

- After you finish this activity, read the contributions of others in the discussion forum.
- Discuss the findings you have made with others, to arrive at a collective understanding of how Intellectual Property works in relation to Open Source Software; OR:
- Share the differences and similarities of your various institutioanl IP policies.

Assessment:

- Completing this activity will count towards your course portfolio.

Reflection

Please use the Moodle course blog facility to reflect on your experiences and engagement with this week's topic guided by the following questions: (30 minutes)

- How will what you have learned assist you to create awareness about the use of Intellectual Property in social, academic, and economic development?
- How does Intellectual Property influence academic, social, and economic development of an individual and society at large?
- How is Intellectual Property practiced in your institution, academic work, and professional life?

Summary

We have seen that Intellectual Property describes the legal ownership of one's original ideas, and is applicable to all those engaged in creating, publishing, or distributing creative works. Owing to the growth of computer networks, and the digitisation of information, issues of copyright now affects society in new ways.

This topic introduces basic IP concepts, including different forms of IP rights and their implementation, such as patents, copyright, trademarks, industrial designs, geographical indications, and trade secrets.. You were also made aware of which items protected by copyright and which are not, and the role of IP in Open Educational Resources (OER) and Open Source Software. The topic ended by looking at aspects of IP in relation to academia, and the effect of Information and Communication Technologies (ICT) development on IP, and online publications.

Generally, IP is a valuable (albeit intangible) asset within academia and business. Let us protect our own IP and IP of others, while remembering that simple procedures can be used without adding excessive bureaucracy.

Review Questions

1. What is meant by Intellectual Property (IP) rights? Who is responsible for administration of Intellectual Property at your institution?
2. What can I do to protect my academic work under copyright law? To what extent am I personally liable as a faculty member, student, or employee of a university for violating copyright law?
3. Why do contemporary information systems technology and the internet pose challenges to the protection of Intellectual Property?

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Topic 3: Promoting Academic Integrity

Introduction

In topics 1 and 2 of this module you were introduced to academic integrity and intellectual property. These topics were designed to create awareness of the need to develop a society of high integrity. In this topic you will explore strategies to promote a culture of academic integrity: who is responsible, and how this could be achived. Questions may include: who creates a culture of dis/honesty in universities, for whose interest, and whose benefits? It is envisaged that once a culture of academic integrity is institutionally embedded, it will transfer to the entire community. Start by viewing the video Preserving Academic Integrity (Michigan State University, 2014).

Topic 3 Learning Objectives

	Upon completion of this topic you are expected to be able to: • identify violations of academic integrity; • describe causes of dishonesty in academia; and • state strategies to promote academic integrity.

3.1 Violations of Academic Integrity

Among students and other members of the academic community, there are those who believe it is morally wrong to cheat. This said, it is possible that you may have encountered several types of violations of academic integrity. In this section we discuss the different kinds of violations, their consequences, and ways to combat them.

3.1.1 Plagiarism

Plagiarism occurs when students or educators do not reference their academic sources at all, or use incorrect or poor referencing. One of the strategies to detect plagiarism is to look for inconsistencies in writing styles within and between papers, signs of datedness, mixed citation styles, and a lack of references or quotations. An original text is more likely to be consistent, with a good flow of ideas.

Plagiarism can be also be defined as an act or instance of using or closely imitating the language and thoughts of another author without authorisation, and the representation of that author's work as one's own, rather than crediting the original author (Ereta, E & Gokmenoglua, 2010; Theart & Smit, 2012; Wong et al, 2016). Plagiarism is a type of violation of academic integrity, where one uses another person's words, language, ideas, or results without giving that person appropriate credit. To avoid plagiarism, every direct quotation must be identified by quotation marks, or appropriate indentation, and both the direct quotation, and the paraphrased text must be cited properly, according to the accepted format for the particular discipline or as required by the

instructor in a course. According to Kohl (2011), Strittmatter and Bratton (2014), Edussuriya et al (2014), and Ahmed and Ullah (2015), some examples of plagiarism include:

- Copying word for word (quoting directly) from an oral, printed, or electronic source without proper attribution;
- Submitting as your own any academic exercise prepared totally or in part by another, or one submitting a work containing significant portions of text from a single source without alterations or acknowledgment;
- Combining perfectly cited sources with copied materials without citation;
- Mixing copied materials from different sources without correct attribution, and/or including citations to non-existent or inaccurate sources;
- Allowing another person to substantially alter or revise your work and submitting it entirely as your own;
- Submitting a work where key words have been changed, but the content is the same;
- Paraphrasing without proper attribution, that is, presenting in one's own words another person's written words or ideas as if they were one's own;
- Submitting a purchased or downloaded term paper or other materials to satisfy a course requirement;
- Incorporating into one's work graphs, drawings, photographs, diagrams, tables, spreadsheets, computer programs, or other non-textual material from other sources without proper attribution.

3.1.2 Strategies to avoid plagiarism

Plagiarism in the education sector brings challenges to both lecturers and students. It is a weakness that may replicate itself within the academic community, as those who plagiarise may themselves become lecturers, researchers, and/or consultants (Ahmed & Ullah, 2015; Graham-Matheson & Starr, 2013; Henslee, et al 2015). According to Ahmed and Ullah (2015) to avoid plagiarism one need to know the causes, that can include inappropriate paraphrasing, improper quoting of materials, improper usage of sources, using materials without acknowledging them, lack of knowledge about proper citation methods, and using web knowledge as public domain.

Citing sources

When citing sources, make sure you clearly distinguish between your own text and the text being quoted from or referred to. As an academic, it is important to make your work stronger by showing that you are not just copying others, but adding to previous academic work. Make it clear who said what, and ensure you distinguish your ideas from those derived from someone else (Ahmed & Ullah, 2015).

Know how to paraphrase

Paraphrasing is a restatement in your own words of someone else's ideas. It is not about changing a few words in a sentence from another author, but changing both the wording and

sentence structure of the original sentence, without changing the content. Paraphrased sentences also require citation, as the ideas come from other sources (Ahmed & Ullah, 2015).

Analyse and evaluate your sources

Not everything published on the web worth citing. You need to select works that are related to your topic of study. Using a scholarly search engine, such as Google Scholar, is very helpful as it directs you to properly published articles, with links through to where they can be accessed, and assists by showing you how to cite them in a number of different referencing styles.

Other strategies to prevent plagiarism include: an understanding of how to reference, knowing the rules about quotations, proper note taking, writing multiple drafts, and proofreading. Correct citation and attribution is important as it connects scholars and scholarship, and supports scholars in developing their own ideas, and adding authority to academic work.

Some universities use text-matching software applications to ascertain if work has been plagiarised. Most institutions using this software have developed policies specifying what percentage of direct quotations is allowed in a piece of academic work. For example, the Open University of Tanzania uses Turnitin software, and 30% of a piece of work is allowed to comprise direct quotations. In each detected case of plagiarism discovered by the software, the student is sanctioned and must explain their actions. It is good practice to introduce your students to using plagiarism software as a formative, developmental referencing tool, and not only as a means of punishment.

Activity 6(a): Review current literature on plagiarism

Aim: To explore the meaning of plagiarism

Motivation: To build up expertise in understanding plagiarism cases.

Task: investigate what is involved in academic plagiarism.

Duration: 80 minutes

Tool: Discussion forum

Resources:

- International Centre for Academic Integrity
- Understanding & Preventing Plagiarism: Strategies & Resources for Students and Teachers (Community for Accredited Online Schools, 2016).

Guiding questions:

- What are the causes of plagiarism in higher education?
- How can higher academic institutions discourage plagiarism?
- How do your findings relate tothe reality in your higher education institution?
- Identify strategies one can use to avoid plagiarism

What to do:

- FInd at least two recent (2010+) academic papers on plagiarism, guided by the questions above.

	• Review and record your findings, as well as any other reviews on the papers if they are available. You should also: o summarise the authors' views and the methodology used; and o describe how the opinion from each paper relates to yours as an individual, and that of the institution at which you work. **How:** • You should undertake this exercise individually. • Search for papers on plagiarism using a search engine such as Google Scholar. You can also visit the suggested links above. • List the papers you found, and the sites on which you accessed them. Provide direct links to the papers to make life easy for all. • Summarise the findings of each of the papers. You should include notes on particular aspects of the papers to which you would like to draw the group's attention, given the guiding questions. • Share your results and the findings on the group discussion forum. • If your contribution is long, attach a file containing your findings to your discussion forum contribution. **Feedback/response:** peer review • When you have made your own contribution, take a look at the forum contributions describing other participants' findings • Reply and comment on at least one other persons review comments or findings. • Read the comments made by others on your own contribution in order to refine your understanding of this topic. **Assessment:** • Completing this activity will count towards your course portfolio.

Activity 6(b): How well do you understand the practicalities of plagiarism?

A fun optional quiz for you!

	**Aim:** To ascertain the evel of your understanding of plagiarism. **Motivation:** To build up expertise in correct academic referencing. **Task:** Equip yourself with knowledge on how to avoid plagiarism. **Duration:** 20 mins **Tool:** External online quiz. **Resource:** TurnItIn online Quiz (not specific to TurnItIn software) **What to do:** • Access the online quiz by clicking on the resource above. • Answer the 18 questions presented honestly. • Submit your responses, and you will receive your score. • You may choose to share your score through the discussion form for activity 6(a) or on social meida. **Feedback and assessment:** automated

In addition to plagiarism, other types of academic violations include cheating, fabrication, sabotage, retaliation, research misconduct, criminal offences, and facilitation of dishonesty.

Cheating

Most universities have comprehensive guidelines on the supervision of examinations, and the sanctions to be applied if these are not followed. Have you ever thought why? One answer is to prevent cheating. Cheating manifests itself in many forms (Schroeder et a, l2014; Ahmed & Ullah, 2015; Silverman, 2015; Wager, 2012). These sources provide some examples of cheating:

- Copying from another student's examination, paper, laboratory work, or assignment, or copying some one's dissertation.
- Possession or use of pre-prepared notes, or other resources, in any form, during an examination, unless such use is expressly authorised by the instructor. An example of this is an open-book examination.,
- Revising a work after its final evaluation and representing the revised version as being the original work.
- Using external assistance, including but not limited to tutors, books, notes, and calculators, in any in-class or take-home examination, unless the instructor has specifically authorised external assistance.
- Allowing others to conduct research or to prepare work for you without advance authorisation from the instructor to whom the work is being submitted.
- Unauthorised use of electronic equipment such as cellphones, pagers, or PDAs, to access, or share information during an examination.
- Submitting for the purposes of academic advancement an item of academic work that you have previously submitted for academic advancement without prior authorisation from the faculty member supervising the work.

Fabrication

Fabrication is the falsification of data, information, or citations in any formal academic work. In academic work this occurs when someone presents other people's work, data, or information as belonging to them. For example, one might present false data or false information, or include references that one did not use. Fabrication is the invention or falsification of sources, citations, data, or results, and recording or reporting them in any academic exercise (Dagienė, 2014; Ahmed & Ullah, 2015; Fannelli, 2009). Some examples are listed below.

- Citing a source that does not exist.
- Making up or falsifying evidence, data or other source materials.
- Falsifying research papers or reports by selectively omitting or altering data that do not support one's conclusions or claimed experimental precision.

Facilitation of Dishonesty

Facilitation of dishonesty is knowingly or negligently allowing one's work to be used by another without prior approval of the instructor or otherwise aiding others in committing violations of academic integrity. A student who intentionally facilitates a violation of academic integrity can

be considered to be as culpable as the student who receives the impermissible assistance, even if the facilitator does not benefit personally from the violation. Some examples are listed below:

- Collaborating before a test or examination to develop methods of exchanging information.
- Knowingly allowing others to copy answers to work on a test or examination, or assisting others to do so.
- Distributing an examination paper from an unauthorised source prior to the examination.
- Distributing or selling a term paper to other students.
- Taking an examination for another student.

Academic Sabotage

Academic sabotage deliberately impedes the academic progress of others. Some examples are listed below:

- Intentionally destroying or obstructing another student's work.
- Stealing or defacing books, journals, or other library or university materials.
- Altering computer files that contain data, reports, or assignments belonging to anotherstudent.
- Removing posted or reserved material, or otherwise preventing other students' access.

Research Misconduct and Professional Ethics

Violations in this category include both violations of the code of ethics specific to a particular profession, and violations of more generally applicable ethical requirements for the acquisition, analysis, and reporting of research data, and the preparation and submission of scholarly work for publication. Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results (Theart & Smit, 2012; Wong, et al, 2016; Farnesea, et al, 2011). Fabrication is making up data or results and recording or reporting them. The falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the results or method are not accurately represented in the research record. Research misconduct does not include honest error or differences of opinion. Some examples are listed below.

- Violating a canon of the ethical or professional code of the profession for which a student is preparing.
- Using unethical or improper means of acquiring, analysing, or reporting data on a thesis project, grant-funded research, or research submitted for publication.
- Misuse of a grant or institutional funds.
- Violating professional ethics in performing one's duties as a staff member.

Violations Involving Potentially Criminal Activity

Violations in this category include theft, fraud, forgery, or distribution of ill-gotten materials committed as part of an act of academic dishonesty. Some examples are: stealing an examination

from a faculty member, university office, or from an electronic source; selling or distributing a stolen examination; forging a change-of-grade form; and falsifying a university transcript. The is likely ito involve bribery and corruption of academic or administrative staff, both of which are criminal offences.

3.2. Causes of Dishonesty in Academia

What are reasons that students (and faculty) engage in academic dishonesty? There are several factors that contribute towards academic dishonesty: individual, institutional, and relating to the environment in which one is placed.

Some of the causes of academic dishonesty include societal and familial expectations; the desire to excel at whatever cost; the pressure of obtaining high grades, getting a good job or getting into a graduate programme; high levels of stress; a highly competitive environment; the pressure to support a team member or friend; laziness or apathy; and lack of preparation. Other causes are immaturity; alienation; ; inability to manage the demands of student life; pressure from parents; a job that leaves no time for study; financial aid that depends on your grades; overly harsh grading; unfair tests designed to fail students; unreasonable course workload; lack of effort; unfamiliarity with what constitutes academic dishonesty; and a lack of understanding about the consequences of academic dishonesty (Dagienė, 2014; Ahmed & Ullah, 2015).

The question is why academic dishonesty continues. Are there no strategies to curb the practice? One response is that this area has not been well researched. As such, according to Wong et al (2016), students feel that cheating is normal; everyone cheats; the adage “cheaters never prosper” may not be applicable in case of academic cheating; and that the prevalence of cheating means it is unlikely to be uncovered by detection strategies.

Rathore et al (2015) assert that factors leading to cheating include both external and personal factors. The external factors include: seating order in examinations; the importance of the test; level of test difficulty; unfair tests; scheduling; supervision; overcrowding; large classes; multiple-choice questions; economic benefits; and badly organised courses. The personal factors include: laziness; awareness of the performance of fellow students; low grades; previous experience of failure; a certain expectation of success; the wish to help a friend; an aversion to the teacher; and to gain social acceptance or liking. Cheats believe that schooling is about competition, and that the purpose of education is to show how smart one is. Some tend to believe cheating results in less work and fewer academic demands. On the other hand, non-cheating students express interest in learning and developing concepts related to the subject through practicing various problem-solving methods and connecting ideas.

Reasons against such dishonoest behaviour are that it would devalue achievement; it is immoral and dishonest; personal pride; it was unnecessary or pointless; feelings of shame or embarrassment at potentially being caught; fear of detection and punishment; not knowing how

to go about it; realising it is unfair to other students; and fearing the consequences. (Rathore et al., 2015; Dagienė, 2014; Ahmed & Ullah, 2015).

It is important to note that not all people who cheat are aware they are cheating. Some students lack the skills to determine if they are cheating. For example, some students who do not know the difference between quoting and paraphrasing. Others believe that paraphrased work need not be acknowledged. Strategies to remedy this by providing education around these issues, are discussed in the following section.

3.3 Strategies to Promote Academic Integrity Values

When it comes to promoting academic integrity, teachers, lecturers, professors, and researchers are instrumental in setting a good example as well as providing guidance via the integration of specific educational activities. Strategies to ensure that a culture of academic integrity is developed include: a discussion with students on standards of academic scholarship, intellectual property, and copyright. Be sure to refer to your university's policy on such matters,a dn bring the policy to your colleagues' and students' attention. As educators, when delivering lessons there are times one uses cartoons, pictures, and text from other researchers or authors. As a lecturer, make sure that you acknowledge sources in your lecture notes. Before punishing students for plagiarism you have to educate them about the concept of plagiarism. Give them exercises on paraphrasing and proper referencing, and take them through the process of referencing and putting text in their own words.

3.3.1 Creating a Culture of Integrity

As discussed in section 1.3 , at universities with a culture of academic integrity, cheating is minimal. In these universities, community members have the courage to implement academic-integrity values. A university can create a culture of integrity through instituting honour codes, commitments, and committees focused on the mission of integrity, and implementing university-wide communication that embraces fundamental values of honesty, trust, fairness, respect, and responsibility. In such academic institutions, all community members are integrated in university-wide development.

University lecturers are the primary people when it comes to ensuring the uiversity community implements values of integrity. Lecturers can contribute towards combattinga cademic dishonest by designing a curriculum, instruction, and assessments that orient students towards task-mastery goals that measure one's development of understanding and competence, and not simply performance goals, which demonstrate competence through high test scores and grades.

Cheating violates the core academic-integrity values of trust and fairness. To achieve integrity, four components work together: community, core values, commitment, and the curriculum.

Community

It may occur that when a student is punished, it leads to community members asking universities not to discipline students. Many parents do not want their children to be punished at all. There are also instances when influential people give orders to lecturers not to discipline students. Can a university exhibit integrity values if they bow to such pressure? It is necessary for universities to maximise the synergy and power of the academic community working together to create and sustain authentic dialogue that advances academic integrity.

For universities to advance academic integrity there is a need to create an integrity committee. This committee will need to conduct studies related to the state of academic integrity at the institution at agreed-upon intervals. The committee members should be champions in creating awareness about and enforcing decisions made related to academic dishonesty at the university. On the whole, the committee will be the organising force that engages the university community in a series of strategic processes in ensuring academic integrity is practised and maintained at the niversity. The integritycommittee needs to keep in mind the core values of the university, and to have courage to ensure these are upheld.

Core values

It is usual for universities to write a mission and values statement, outlining what they believe in and stand for. Values such as integrity – and its component values of honesty, trust, fairness, respect, and responsibility – are standard in such statements: the issue is their implementation in academia. A lack of such values could mean chaos at a university, thus it is important to have a university integrity committee to formulate and implement these fundamental values.

Universities will usually also have a university development plan. When addressing academic integrity, the university committee should analyse data related to prevalence of cases of dishonesty in relation to core values. One can view the core values as supporting universities and the academic community in creating strategic and comprehensive plans to deal with cases of dishonesty. The university committee should also produce a statement outlining core values. A focus on core values, such as respect, trust, and responsibility, highlights the fact that dishonesty is not merely a personal choice affecting oneself, but also a social problem affecting others. Left unaddressed, it undermines the trust and integrity that bind the academic community together.

In most cases, students will support academic integrity policies, including penalties for cheating, when they recognise that these policies protect fairness in grading and assessment. Linking academic integrity to the university's core values helps the university community make a moral claim regarding cheating; namely, that it destroys trust and is unfair.

Commitment

Without commitment, it is difficult to implement strategic plans on academic integrity. Universities and colleges that do not commit to academic integrity are likely performing poorly

overall, a reflection of not working together as a community to ensur their staff and students develop, grow, and achieve with integrity.

Curriculum

In some instances, students complain that a course is so difficult that it inspires dishonesty. In such cases, the curriculum and its implementation have a role to play in promoting academic integrity. Lecturers should integrate academic integrity and values in their course outlines, course delivery, course syllabi, and assessment methods.. The lecturer should display honesty in showing clearly what is expected of students on the course, and when setting assessments, tests and other assignments, these should be in line with what has been communicated. It is important that each student knows exactly what is required of them. Early understanding of the demands of the course enables learners to plan their time accordingly. In marking academic work, lecturers should prepare a comprehensive marking scheme that will guide marking and ensure uniformity. Strategies that encourage academic integrity include:

- Defining academic integrity and academic dishonesty: hold discussions on cheating, plagiarism, and other forms of dishonesty with your students. Staff and students should be made aware of the nature and importance of academic integrity as a core value of scholarly work;
- Dissemination of information on academic integrity: when institutions fail to make such information available, students are unaware of what is required of them;
- Displinary measures associated with academic dishonesty need to be made clear to students;
- Do not recycle test or examination papers from semester to semester;
- During examinations students should sit in rows, at separate desks, if possible;
- Do not allow mobile phones or tablets into examination or test venues;
- Use photo and other identification, such as fingerprints, to ensure the correct students are sitting an examination; and
- Catch and discpline those who do cheat.

Activity 7: Explore institutional strategies to promote academic integrity.

	**Aim:** To promote academic integrity in your own institution. **Motivation:** To develop expertise in promoting academic integrity in higher education. **Task:** **Duration:** 90 minutes **Tool:** Discussion forum; Google Scholar. **Guiding questions:** • What are the strategies used by higher learning institutions in promoting academic integrity?

	• Find institutional policies covering academic dishonesty cases. Describe how effective you think they would be at your own institution. Identify weaknesses and suggest improvement to the policies. **What to do:** • Find at least two academic papers on promoting academic integrity. Make a note of the papers that you have selected, and save the link to access them. • Summarise the views expressed and the methodology used. You should include notes on particular aspects to which you would like to draw the group's attention. • Working with your institutional group, investigate which strategies are already in place at your own insitution and record these. • Share your findings and summary with the group, and discuss which of methods you have found may be adapted for your institution to supplement their existing approach. • Share your work with your dean, or another member of senior academic management at your institution **How:** • The initial parts (finding research articles) of this activity are individual. • Then form an interest group at your institution, and confer with them in undertaking the rest of this activity. • Share your results and findings on the discussion forum. **Feedback/response:** (peer review / facilitators) • Take a look at the forum contributions describing the other participants' findings • Reply to and comment on at least one other participant's review comments or findings. • Read the responses to your own contribution and discuss. **Assessment:** • Completing this activity will count towards your course portfolio.

Reflection

Please use the Moodle course blog facility to reflect on your experiences and engagement with this week's topic guided by the following questions: (30 minutes)

- What have you learned in this topic that will assist you in promoting academic integrity in your academic, social, and business-related activities?

Summary

	Promoting academic integrity is an issue that affects the whole university community, and wider society. Different people have a role to play at different levels. It is important for academics to find ways to encourage the development of academic integrity at their institutions, to set a good example for their students by exhibiting ethical behaviour themselves, and to consciously educate their students in the values of academic integrity. The use of text matching (plagiarism) software

	such as TurnItIn can be promoted as a formative tool for developing good referencing practice, rather than used simply as a punitive measure.

Review Questions

1. Describe how academic integrity issues may be addressed and knowledge an values disseminated to students.
2. Describe what measures are already in place at your institution, and the ways in which academic integrity can be further developed and strengthened.
3. "Plagiarism is a literacy practice that involves social relationships, attitudes, and values. as much as it involves rules of citation and students' texts." (Valentine, 2006) As such, students should not be penalised or punished, and instead be taught the correct way of writing about and citing relevant literature. Read this paper and describe your views for and against this assertion.

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Topic 4: Data and Information Privacy in Academic

Introduction

The primary goal of this final topic is to facilitate a solid understanding of the basic rules for protecting privacy and personal information in the education sector. The topic also seeks to illuminate issues relating to data gathered through the use of emerging technologies, as well as data protection in research. Furthermore, relevant issues of legal policies on privacy and data protection will be explored. View the video (6m14s) The Ethics of Data – Personal Data and Privacy (BBC Research and Development, 2016).

Topic 4 Learning Objectives

Upon completion of this topic you are expected to be able to:

- Discuss personal information and privacy protection;
- describe issues relating to data in emerging technologies and data protection in research; and
- be aware of legal policies on data and privacy protection.

4.1 Personal Information Privacy

In academic research and higher-learning institutions, the need for personal information privacy is of great importance. When conducting research we collect data; in many cases this comprises personal, confidential information. This is one of reasons we need to obtain research clearance and sign an ethics declaration.

The right to information privacy is an important civil right. Privacy is about what information is being collected, and how it is used. People should have a choice in how their personal information is collected, and be confident that it is stored securely. According to Ahmetoglu and Khedher (2015), the large quantities of information appearing online, coupled with poor knowledge about privacy rights in an online context, has led to poor use of information. Hence, there is a need to educate people about privacy issues and related risk factors.

Information or data privacy underlines the relationship between data collection and dissemination, technology, and the public's reasonable expectation of privacy, as well as the political and legal issues pertaining to these factors. For instance, although it is possible to monitor, log, and record the behaviours and patterns of people who access the internet, the resulting information should be treated ethically in accordance with legal codes and standards. According to Ermakova et al (2015) and Sharari and Faqir (2014), information-privacy training sessions are important for both those gathering data and internet users, so that they are fully aware of the implications of their actions.

The widespread use of ICT in the 21st century profoundly affects how we work, play, and interact with one another. As such, electronic communications have becomean integral part of our lives (Bohaker, Austin, Clement & Perrin, 2015). Personal information privacy calls for acceptable policies to be made available for internet users, so that administrators of higher education institutions have a clearly defined mandate in the monitoring of the internet usage. Many users do not check the terms and conditions of data information and privacy when using institutional or social media networks, and in addition, do not think ahead to the implications of social media activity that perhaps can be viewed by their higher education institution.

Personal information refers to all data sets that are associated with an individual, and can be sensitive and/or identifiable. This may include name, date of birth, gender, school, graduation, geographical location. When we talk of personal information being sensitive, we refer to information that some people believe should be kept private, while identifiable information refers to any type of information that identifies or can be used to identify, contact, or locate the person to whom such information relates. Identifiable information can include but name, address, phone number, and credit-card information.

Companies and institutions use databases to store large quantities of information, including personal data. At many educational institutions, this technology can be used to understand, analyse and improve student achievement, community engagement, and institution accountability. Despite these benefits, the use of such technology can present several drawbacks, one of these being the misuse of such data in terms of information privacy, especially when it comes to the infringement of student records for non-academic purposes. Institutions need to implement measures to counter privacy threats to their records, in the same way that businesses do. They should formulate and implement a security policy, updating systems as technology changes, and offer computer-security training to their personnel and students, among other measures.

If you have already undertaken Module 3 (Learning Design and Development) of the this course, think back to the section on Learning Analytics. Data to inform analysis of student engagement and learning may be gathered automatically by your institutions learning management system (LMS) during the running of each course online. Are your students aware of this functionality of the LMS? Have you explained to your students exactly what information about their use of the LMS will be gathered, how it will be analysed, and what the institution, faculty, or department will do with the resulting information? How will this information be actied upon, and with whom will it be shared? Most importantly, what is the overall purpose of gathering these learning analytics? You should also be aware that besides learning analytics being gathered from within courses, it is also usually gathered at a faculty and institutional level for reporting purposes both inside the institution, and to your national regulatory bodies.

Activity 8(a): Ensuring personal information security

Please undertake EITHER this activity OR Activity 8(b).

Aim: To familiarise yourself with privacy and personal information security in terms of social media.

Motivation: To be aware of the need for privacy and personal information security.

Task: Investigate the privacy and personal information policy of a social media application such as FaceBook, LinkedIn or Google.

Duration: 80 minutes

Tool: Discussion forum

What to do:

- Access one of the social media applications mentioned above or any other of your choice.
- Ascertain the privacy and personal information security policies and settings of your application.
- Capture your findings in a document, and then share them with the group by contributing to the forum and/or attaching the document to your forum post.

How:

- You may undertake this activity individually or in groups.
- Contribute your individual or group response through the discussion forum.
- Although only one person will submit the response, make sure that you include the names of all the group members at the top of your document or post.

Feedback/response: peer review

- Read at least two posts from other contributors and comment constructively on their findings.
- Read other persons responses to you own contriubtion, and discuss their observations.

Assessment:

- Completing this activity will count towards your course portfolio.

Activity 8(b): Investigating Institutional or Learning Analytics.

Please undertake EITHER this activity OR Activity 8(a).

Aim: To familiarise yourself with academic teaching and learning information security.

Motivation: To be aware of how teaching and learning analytics are used.

Task: Investigate the gatherine and use of analytics at a course and insitutional level.

Duration: 80 minutes

Tool: Discussion forum

What to do:

	• Find out if and what learning analytics are captured on your institutional LMS, and what use is made of the resulting analysis. • Find out what data is gathered by your sintution at a department, faculty or institutional level and to whom this is reported. • Ascertain how or if information is shared with the relelvant persons around this data gathering and reporting, **How:** • You may undertake this activity individually or in groups. • Contribute your individual or group response through the discussion forum. • Although only one person will submit the response, make sure that you include the names of all the group members at the top of your document or post. **Feedback/response:** peer review • Read at least two posts from other contributors and comment constructively on their findings. • Read other persons responses to you own contriubtion, and discuss their observations. **Assessment:** • Completing this activity will count towards your course portfolio.

4.2 Protecting personal information

So far we have explored the meaning of personal information and the privacy thereof. Now we shall look at protecting and securing personal information.. There are key procedures and strategies that a person can implement to protect personal information and satisfy the security obligations in terms of privacy. These procedures and strategies may vary in their implementation and the effect they have on users. For example, an academic institution usually requires that registered students sign an internet use document at the start of each academic year. In the document, issues such as only accessing legal internet sites, and not sharing their password are clearly explained and the consequences of violating these rules is explained. Institutions should undertake privacy-impact and information-security-risk assesments when implementing new policies and practices, or effecting changes in existing acts or practices that involve the handling of personal information. The following strategies are some of the recommended security measures:

Governance

Organisations need to establish clear procedures and lines of authority for decisions regarding information security. They should have a governing body, committee, or designated people that are responsible for managing personal information to ensure its integrity, security, and accessibility. This body or committee shoulddefine the necessary information-security measures, and conceptualise plans to implement and maintain these measures.

Data infringements

A data infringement occurs when sensitive, protected, or confidential information is viewed, stolen, or used by an unauthorised individual. A data infringement can involve unthorised access

to personal health information , personally identifiable information , trade secrets, or even intellectual property. When a data infringement occurs, having a response plan that includes procedures and clear lines of authority will be of great help for an organisation to control the infringement and manage its response.

Physical security

One protective measure is through controlling physical security, which is very important in ensuring that personal information is not accessed inappropriately. Institutions need to consider which steps are necessary to ensure that physical copies of personal information are secure. The workspace itself needs to be designed to facilitate good privacy practices. For example, security and alarm systems can be used to control entry to the workplace; it is also possible to access individuals' movements from an access log. Employees working on sensitive matters need to have a secure and private working space, and computer screen should not be easily viewed by third parties Physical files containing personal information need should be stored securely.

Personnel security and training

It is very important for an institution's staff members to be aware of the importance of good information handling and security practices. Staff should be trained in these issues, so that practices that can infringe an individual's privacy are avoided. Staff should receive training regarding ICT and communications security at their institution. They should also be informed of changes to policy and procedures, or other workplace security requirements. Privacy training generally helps staff to avoid practices that would infringe an entity's privacy obligations by ensuring that they understand their responsibilities.

Workplace policies

Information privacy protection can be very effective if it is integrated within workplace policies. Policies need to be regulated and regularly updated to ensure that they are effective and in line with current privacy concerns. Information security and the handling of personal information needs to be addressed in a single policy document, and management should ensure that staff are trained regarding their responsibilities. Management should have a clear policy that covers information security guidelines when staff members work off site, for example, from home, a secondary site office, or a temporary office.

Managing the information life cycle

The information life cycle describes the process that every written or digital record goes through: from its creation to its final archiving or destruction. Individuals who handle information need to ensure that such information is not inappropriately used or disclosed during its life cycle. This may include ensuring that personal information is not mistakenly disclosed to the incorrect individual, is not lost, and is disposed of appropriately when it is no longer required.

Policies may require personal information to be retained for a specified period of time. Policies should reveal the processes the institution uses to identify staff and students prior to disclosing

their personal information by phone or in person. These may include measures that the institution takes to ensure the verification processes do not infringe privacy. Measures taken during system upgrades, disaster recovery, and system backups should be outlined in the policy document.

Standards

Standards are documents that set out specifications and procedures designed to ensure products, services, and systems are safe, reliable, and consistently perform the way they are intended to. Standards may be general or specific to particular industries or sectors. Examples include the **ISO 27000 series of information security management systems standards** and the **ISO 31000 risk management standards**. Adopting a standard is one way that individuals can gain some confidence regarding their security practices. However, complying with a standard does not release the organisation from taking further steps to protect its holdings of personal information.

Regular monitoring and review

Regular review of information security measures is very important, due to the fact that an organisation's processes, information, personnel, applications, and infrastructure, as well as its technology and security-risk settings are constantly changing. Entities should regularly monitor and review the operation and effectiveness of their information security measures.

4.3 ICT Security

When using ICT to support education a number of issues need to be addressed, including in the teaching and learning process. When it comes to ICT security, both the physical devices that make up a computer system (computer hardware), as well as the information that the computer hardware holds, should be protected from unauthorised use, access, theft, or damage. However, ICT security measures should also ensure that the hardware and the information stored on it remain accessible and useful to legitimate users. This poses challenges in security, and whether academics are able to ensure the safe use of ICT in teaching (Miron & Ravid, 2015).

It is advisable to consider ICT security measures and the protection of personal information to be a part of the decision whether to use, purchase, build, or upgrade ICT systems, rather than addressing it after a privacy infringement has occurred. Organisations and academic isntitutions that provide online services or engage in electronic commerce, use ICT security measures to ensure that their website, along with apps, terminals, kiosks, etc, are secure, and that they provide a safe environment for individuals to interact with the institutional systems.

Implementing ICT security procedures help individuals to protect themselves against malicious hackers, computer viruses, and other harmful programs. These programs may be used to gain unauthorised access to computer systems and disrupt their operations or steal stored personal information. Furthermore, users also need protection against unauthorised use or disclosure as a result of human error, hardware or software malfunction, power failure, and natural disasters. An institutional intranet is an example of protecting information and resources by restricting access to those employed by or registered at that institution.

Data-handling practices consider how personal information is being collected, processed, and stored. If data handling is outsourced, there is a consideration of how the third party handles and secures that information, as appropriate steps need to be taken to ensure that third parties meet the organisations's privacy obligations. These steps may include specific obligations about the handling of personal information in contracts, and mechanisms to ensure that such obligations are being fulfilled. These can include regular reporting requirements and conducting inspections of the third party's facilities. Similarly, it is reasonable for units that store personal information remotely, such as with cloud-computing service to take different steps from or additional steps to a unit that stores information at its own facilities.

Activity 9: Responsibilities when using your Institutional ICT network

Aim: To familiarise yourself with the importance of security measures when processing and using information.

Motivation: To become aware of security measures in a fast-changing Information and Communication Technology environment.

Task: Find our what ICT security usage measures are in place at your institution.

Duration: 90 minutes

Tool: Discussion forum

Resources: Your institutional ICT Policy

What to do:

- Locate your institutional ICT Policy and/or ask for a meeting with an ICT support staff member to discuss issues arising.
- Ascertain what your responsibiities are as a member of staff when using the institutional network to access the intranet and internet.
- Establish how information security affects the academic community.
- Discuss your findings with colleagues to find out the level of awareness of information security in your department or faculty.
- Record their opinions, making sure to preserve their privacy.
- Write up your findings in a document and share on the discussion forum.

How:

- This activity should be undertaken individually.
- Contribute your findings and responses through the discussion forum.

Feedback:

- After you finish this activity you need to respond constructively to other participants' finding in the discussion forum.
- Read and take note of responses to your own post and discuss further online.

Assessment:

- Completing this activity will count towards your course portfolio.

4.4 Data protection in research

One of the major concerns about data privacy revolves around the protection of data in research, which is among the core functions of any academic institution. Within disciplines such as education, the sciences, and health, research often entails the processing of personal data, including sensitive personal data.

The advent of technology has increased effectiveness in the collection, storage, and retrieval of such data; however, it has also resulted in such information becoming more accessible and this susceptable to misuse. There may also be a situation when a university is engaged in international research that may involve the transfer of personal data overseas.

Recent advances in technology and telecommunications have significantly changed the delivery methods of education worldwide. Nowadays textbooks, photocopies, and videos that deliver educational content to a classroom full of students have gone; instead, all content is placed online. Early adopters of these technologies have demonstrated their potential to transform the educational process, but they have also called attention to possible challenges. In particular, the information sharing, web-hosting, and telecommunication innovations that have enabled these new educational technologies, raise questions about how best we can protect the privacy integral to research..

Reflection

Please use the Moodle course blog facility to reflect on your experiences and engagement with this week's topic guided by the following questions: (30 minutes)

- What have you learned in this topic that will assist you in preserving your data and information privacy?
- How do data and information privacy affect the academic and community activities of an individual and society at large?
- How is data and information privacy practiced at your institution, in your academic work and work life?

Summary

	We have seen that, information privacy is an important aspect to deal with when we consider academic integrity. The challenge is that the internet can be used as a tool for fabrication and falsification of data and information. Protecting data privacy and ensuring confidentiality should always be considered when addressing data storage. Higher education institutions should focus on storage security and ethical access to and useof staff and student data, as this is crucial to maintaining data and information privacy

Review Questions

1. What data collection and protection measures are in place at your institution? Do these measures align to other isntitutions, or is there room for imrpovement?
2. Learning analytics can be used to great advantage in early identification of students at risk and providing timely support. Provide a coherent ethical argument for and against the capturing and use of learning analytics.

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Final Module Overall Reflection / Evaluation

1. To what extent you have developed your knowledge and skills in dealing with academic integrity?
2. Which were the most difficult parts, and why were they difficult?
3. Which were the most straightforward parts, and why did you find them easy?
4. What were the greatest challenges you faced in undertaking the module?
5. What was the most boring or tedious part of doing the module?
6. What are your recommendations for a possible improvement?
7. In which ways did this module on academic integrity help you in your career?
8. What advice would you give a friend who is about to enroll in this course?
9. What have you learned about yourself while engaging with this module?
10. How has this module affected your perception of your own institution's practices?