WEEK-2
COMPUTING AND PSYCHOLOGY RELATIONSHIP
(Theories and Applications)

Dr Eric Opoku Osei

Introduction

• The digital citizenship concepts consider the digital/virtual environment as a rear-world space that requires human psychological theories to control the online citizens and behaviour (*including online predators*)

• A Computer Scientist must be able to use the fundamental knowledge on human behaviour to design and develop a system for diverse end-users.

• Computer science has AND human Psychology has a direct **reciprocal** link.

• The contribution by various Psychologists lead the knowledge advances in the **Human Computer Interaction course** (HCI course)

• There are several behavioral theories available for leadership, education, health sector, ICT system designers and other bodies.

4-Key Behavioural Theories & Computer-User Behaviour
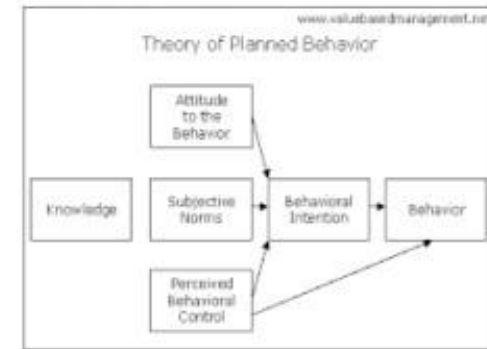## Why people develop Behavioural Intention to compromise ICT System

1. Behavioral Theory: (1.1. Planned Behaviour Factors)

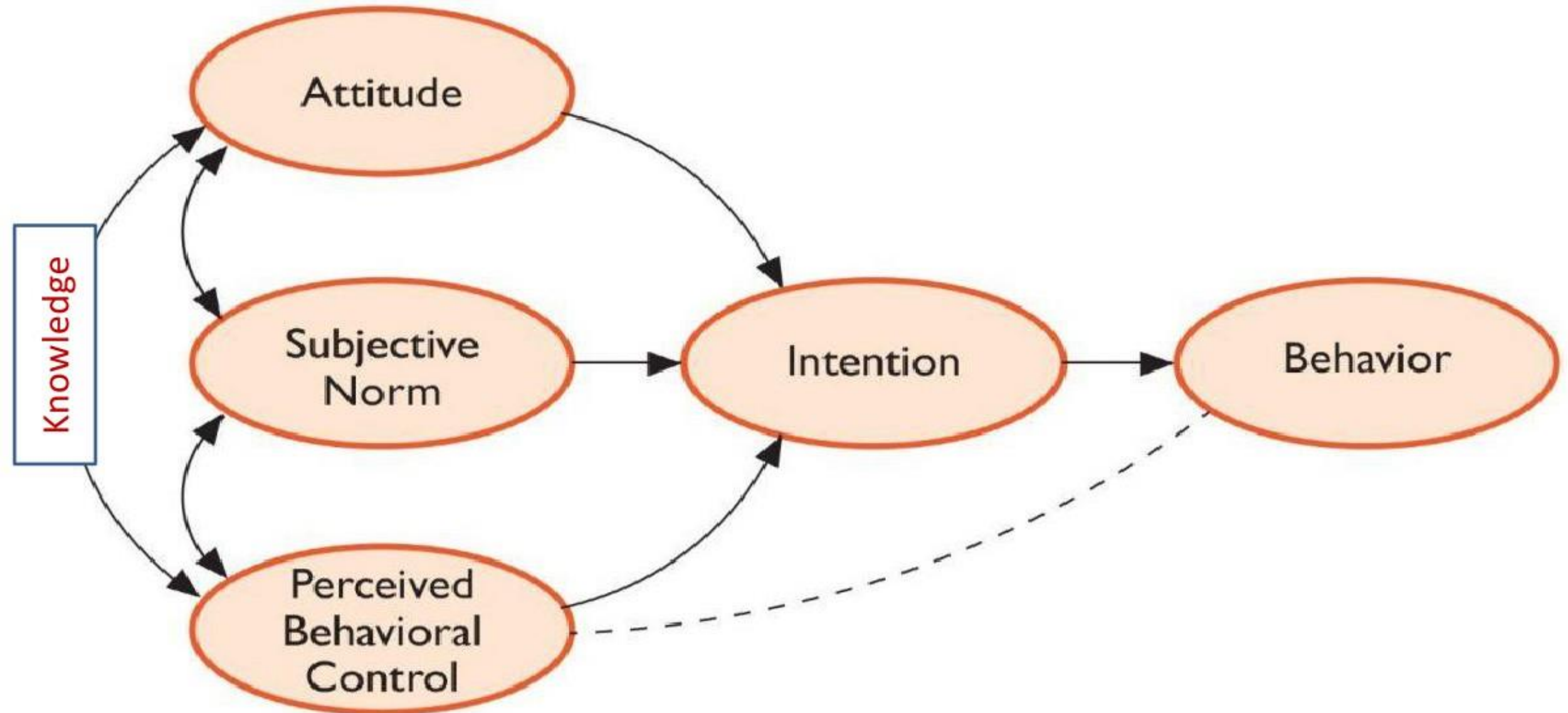• Human action is guided by three (3) considerations/factors:

1. Behavioural Belief: Beliefs about likely consequences after performing the behaviour.

2. Normative Belief: Belief about the expectation of others/onlookers/acceptable values of a community

3. Control Beliefs: The presence of factors that may facilitate or impede performance of the behaviour (ex. An open door trigger stealing)

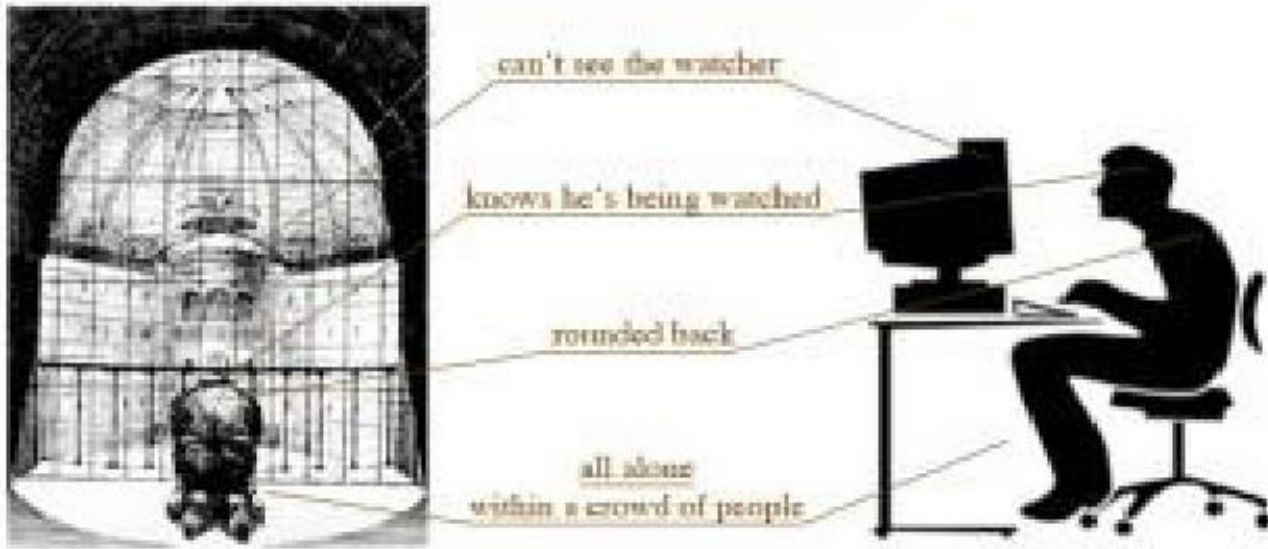# 1. Behavioural Theory: Theory of Planned Behaviour

The Prisoner and the Free

can't see the watcher

knows he's being watched

rounded back

all alone
within a crowd of people

The basic idea of panoptical control is that people will obey the prevailing rules and. norms when they know they are being watched. The theory was developed by Jeremy. Bentham 200 years ago when he designed an architecturally and managerially innovative model prison called Panopticon.

Osei, E. O (2018)

self-actualization
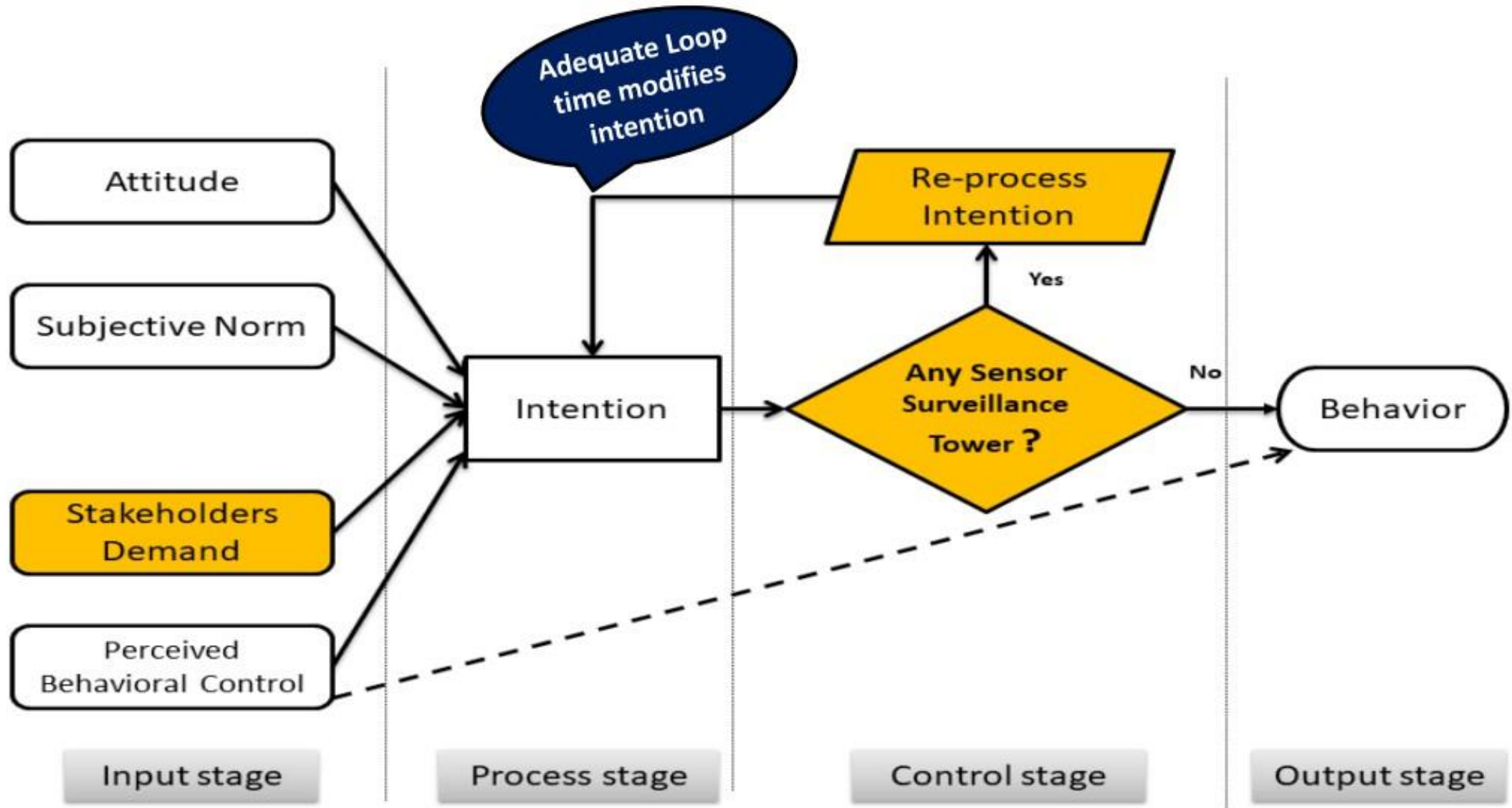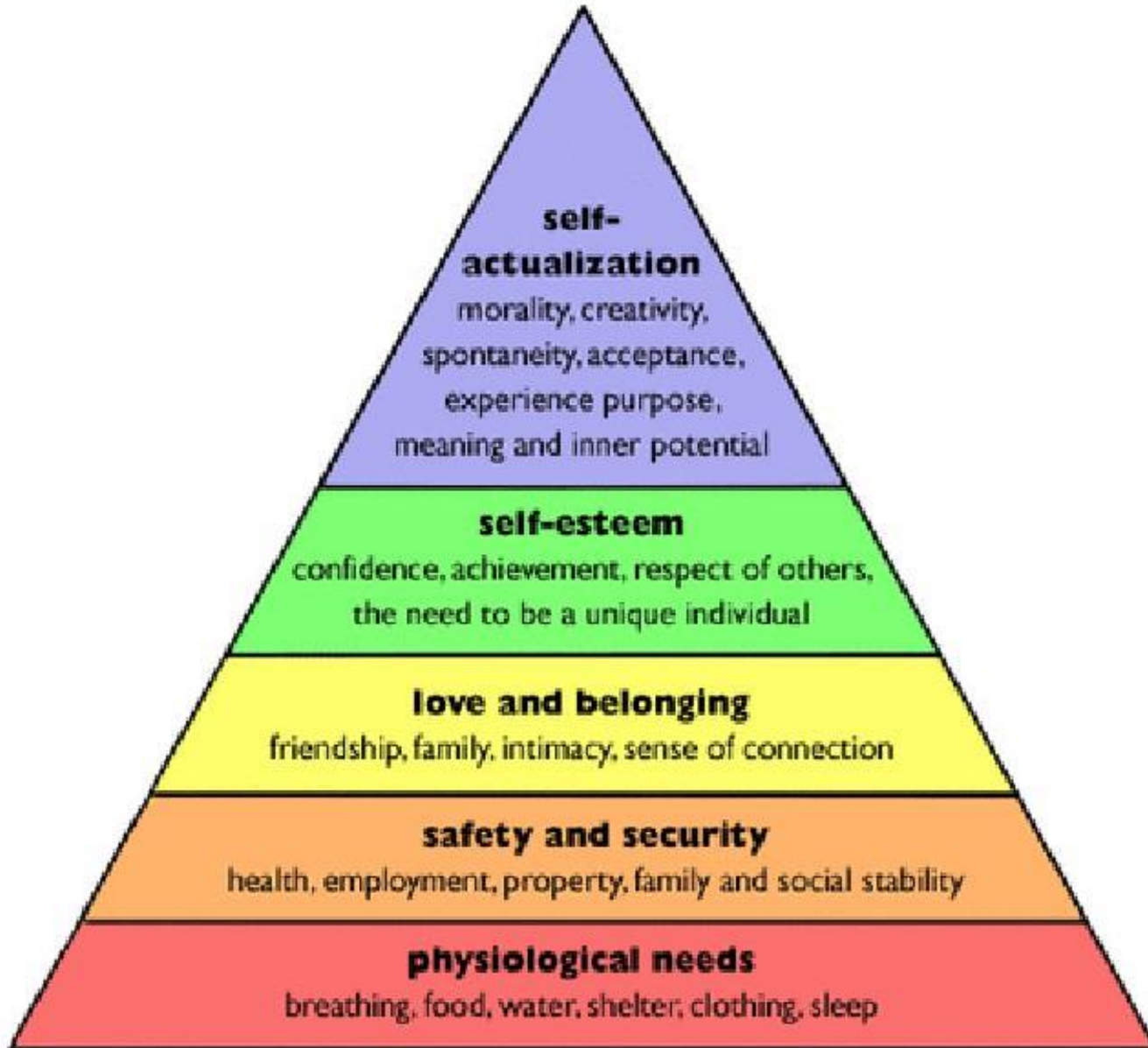morality, creativity, spontaneity, acceptance, experience purpose, meaning and inner potential

self-esteem
confidence, achievement, respect of others, the need to be a unique individual

love and belonging
friendship, family, intimacy, sense of connection

safety and security
health, employment, property, family and social stability

physiological needs
breathing, food, water, shelter, clothing, sleep

Maslow Hierarchy:
Abraham Harold Maslow was an American psychologist who was best known for creating Maslow's hierarchy of needs, a theory of psychological health predicated on fulfilling innate human needs in priority, culminating in self-actualization.

While dated, **Maslow's theory** is **useful** for both personal development and workplace growth. By identifying what humans need and what drives and motivates people, employers and employees can develop mutually beneficial relationships and positive environments conducive to work.

Behaviour Rules for Computer-users

Keyword	Rule
Theft	Do not use computers to steal information of other users
Predator	Do not use computers to harm other users
Access	Do not access files without a prior permission of the owner
Copy	Do not copy a copyrighted software without license, where required
Resources	Do not use other users computer resources without their permission
Internet	Do not use the internet unethically to corrupt your moral/value beliefs

Understanding divers employees in the workplace to set ICT ethical and Legal Controls

Big 5 Trait	Definition
Openness	The tendency to appreciate new art, ideas, values, feelings, and behaviors.
Conscientiousness	The tendency to be careful, on-time for appointments, to follow rules, and to be hardworking.
Extraversion	The tendency to be talkative, sociable, and to enjoy others; the tendency to have a dominant style.
Agreeableness	The tendency to agree and go along with others rather than to assert one's own opinions and choices.
Neuroticism	The tendency to frequently experience negative emotions such as anger, worry, and sadness, as well as being interpersonally sensitive.

4. Psychoanalytic Theory & ICT User Behaviour/Morality

Pleasure Principle **Author: Sigmund Freud**	In Freud's psychoanalytic theory of personality, the pleasure principle is the driving force of the id that seeks immediate gratification of all needs, wants. and urges. In other words, the pleasure principle strives to fulfill our most basic and primitive urges, including hunger, thirst, anger, and sex. Critique Exercise: What is your opinion on watching nude videos using the workplace internet resources during working hours
Reality Principles	In Freudian psychology and psychoanalysis, the reality principle is the ability of the mind to assess the reality of the external world, and to act upon it accordingly, as opposed to acting on the pleasure principle.
Death Drive	In classical **Freudian** psychoanalytic theory, the **death** drive is the drive toward **death** and destruction, often expressed through behaviors such as aggression, repetition compulsion, and self-destructiveness.

Defense Mechanism	**Defense mechanisms** are behaviors people use to separate themselves from unpleasant events, actions, or thoughts First proposed by Sigmund **Freud**, this theory has evolved over time and contends that behaviors, like **defense mechanisms**, are not under a person's conscious control. **12-Types:** The 12 Freudian defense mechanisms are compensation, **denial**, displacement, identification, introjection, projection, **reaction formation**, **rationalization**, regression, repression, ritual & undoing, and sublimation.
Ego	Ego is defined as the view that a person has of himself. An example of ego is the way that you look at yourself. An example of ego is thinking you are the smartest person on earth.

Learning Activity:
Defense Mechanism

Analyze the context in which computer-users can behave in any of the following defense mechanism

Mechanism	Description	Example
Repression	Repression is an unconscious mechanism employed by the ego to keep disturbing or threatening thoughts from becoming conscious.	During the Oedipus complex aggressive thoughts about the same sex parents are repressed
Denial	Denial involves blocking external events from awareness. If some situation is just too much to handle, the person just refuses to experience it.	For example, smokers may refuse to admit to themselves that smoking is bad for their health.
Projection	This involves individuals attributing their own unacceptable thoughts, feeling and motives to another person.	You might hate someone, but your superego tells you that such hatred is unacceptable. You can 'solve' the problem by believing that they hate you.
Displacement	Satisfying an impulse (e.g. aggression) with a substitute object.	Someone who is frustrated by his or her boss at work may go home and kick the dog,
Regression	This is a movement back in psychological time when one is faced with stress.	A child may begin to suck their thumb again or wet the bed when they need to spend some time in the hospital.
Sublimation	Satisfying an impulse (e.g. aggression) with a substitute object. In a socially acceptable way.	Sport is an example of putting our emotions (e.g. aggression) into something constructive.

Table 8.1 — Some of Freud's Defense Mechanisms

Defense Mechanism	Description	Example
Repression	Unknowingly placing an unpleasant memory or thought in the unconscious	Not remembering a traumatic incident in which you witnessed a crime
Regression	Reverting back to immature behavior from an earlier stage of development	Throwing temper tantrums as an adult when you don't get your way
Displacement	Redirecting unacceptable feelings from the original source to a safer, substitute target	Taking your anger toward your boss out on your spouse or children by yelling at them and not your boss
Sublimation	Replacing socially unacceptable impulses with socially acceptable behavior	Channeling aggressive drives into playing football or inappropriate sexual desires into art
Reaction formation	Acting in exactly the opposite way to one's unacceptable impulses	Being overprotective of and lavishing attention on an unwanted child
Projection	Attributing one's own unacceptable feelings and thoughts to others and not yourself	Accusing your boyfriend of cheating on you because you have felt like cheating on him
Rationalization	Creating false excuses for one's unacceptable feelings, thoughts, or behavior	Justifying cheating on an exam by saying that everyone else cheats

THANK YOU