



1. Competitive Intelligence

Gathering of knowledge which is readily available in the public domain, on the competition.

While Industrial espionage is illegal and the knowledge gained is either trade secret or the companies private data.

There is a fine line between the two. Very careful measures should be taken so as to make sure we don't cross the limit.

These measures include having a manager who is familiar with laws regarding this matter as well as experienced analysts who gather legal information.

Sources of competitive intelligence

- Annual Report (ethical)
- Website
- Brochure
- Customer Reviews
- Work Standards achieved
- Tax filings
- Ongoing / dead legal battles
- Finding Vendor specific services

• ex-employee (unethical)

• Buying the product

• Pretending to

be a customer

Not part
of competitive
intelligence

2. Safety critical system.

Any system which deals with life of a human / animal / living being. The most important aspects of these systems are how safe they are, should be. Hence safety - critical systems.

During all the phases of the SDLC, the complete safety of the user should be taken into account.

Design: All designs should first focus on safety rather than efficiency.

Analysis: It includes a cost benefit analysis of safety vs efficiency to determine feasibility.

Coding: N-version programming where all safety - critical components are implemented using two different algorithms, in two different environments, on two different machines to make sure atleast one works, when the other fails.

Testing: White box, black box, Pynamic, static, unit, integration, system, alpha, beta, user acceptance testing.

Question Nos

Marks Awarded

Deployment: The deployment should be first done by the company itself, then checked by an ethic standards organization for seal of approval.

Marks Awarded

Question Nos

3. Digital Divide

It's the gap present b/w the communities which have easy access to IT services and the communities which have zero or find it very hard to access the same IT services.

In many developing countries like India, Philippines, etc., the rich and middle class have reasonable access to the internet, while the poor have zero access.

Four ways to reduce negative influence

- 1) Telemedicine
- 2) Use of Wireless Technology
- 3) Mobiles
- 4) Education (low cost/free)
- 5) Cheap student laptops/Tablets.

How do these help to reduce the digital divide?

Telemedicine, in a simple way is a doctor on call, in many cases we have paramedics, nurses, etc staffing for these services.

Free WiFi hotspots

Cheap cell phones

Free / low cost (But Quality) mass education schemes

Free / cheap laptops to empower students.

- 4.
- 1) Cyber bullying
 - 2) Cyber stalking
 - 3) Impersonation
 - 4) Civil rights violations
 - 5) Companies using social media for screening employees.
 - 6) Sexual predators

→ Cyber bullying :- Being mean, rude, trolling, humiliating a victim to the point of harassment.

→ Cyber stalking :- Adult version of bullying where the attacker keeps track of victim's internet history, usage, etc to tap all data sources to find victim's cellphone no., address to prank call, send a million messages, etc.

→ Impersonation :- assuming someone's identity to ruin reputation, etc.

→ Civil rights :- By uploading personal images, media, information on social n/w sites, one may use all this to track and harm people.

→ Racial / ethnic screening, companies go through your social profiles during interview.

→ Sexual predators :- Child offenders, etc use bait to lure kids on social n/w.

Question
Nos

5. Green computing

→ Low energy consumption

→ Not using hazardous material

→ Recycle all waste.

Main principles of green computing

by designing all process from top to bottom of supply chain model, drastically reduce adverse effects on the environment.

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- 1] Accenture
- 2] InPost
- 3] Google
- 4] IBM
- 5] Intel
- 6] AMD & Nrdia