Professional Studies II

*ICTICT532 Apply IP, ethics and privacy in ICT environments*

*BSBXCS402 Promote workplace cyber security awareness and best practices*

*ICTICT517 Match ICT needs with the strategic direction of the organisation*

### Assessment requirements

This workbook will guide you through the processes used to research, develop, review and apply intellectual property, ethics, privacy and cyber security policies within a games organisation for the protection of all stakeholders, including staff and clients/customers.

You are required to submit the following to Canvas for assessment;

* this workbook with all sections completed
* the following documents you will develop during the subject;

1. NDAcontract.pdf
2. PrivacyPolicy.pdf
3. CodeofEthics.pdf
4. GrievancePolicy.pdf
5. ICTSecurityPolicy.pdf
6. ICTgapanalysis.pdf
7. ICTworkbreakdown.pdf

### Learner notes

* Refer to the *Assessment Briefs* page in Canvas for a list of resources to assist in your research.
* Review the AIE lectures to support your knowledge and information gathering.

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# Before you start – Review the Case Study

Read through the General Games Company Case Study materials available on Canvas:

* + Business Identity
  + Business Plan
  + Strategic Plan
  + Privacy Policy

There is a range of information contained within these documents that you will need to refer to as you complete the workbook tasks.

# Topic 1 – Review policy documents

During this subject keep a record of the discussions you have with your trainer, assessor, classmates or others about how organisational strategy, ethics or privacy policies can be applied to games companies.

Discussions you could record may include;

* Asking your instructor/assessor for feedback on your responses to workbook tasks s
* Asking your instructor/assessor for clarification on specific tasks related to the organisational policies that relate to games companies
* Discussing specific policies and their impact on games companies with classmates
* Reviewing and discussing online policy or organisational resources with a classmate
* Receiving feedback from your assessor on your assessment submission.

To complete this task you are required too;

1. Record the details of at least two (2) discussions or interactions.
2. Describe any changes you made to your task responses as a result of these discussions.

#### Discussion records

|  |  |
| --- | --- |
| **Topic of Discussion:** | Data management |
| **Date:** | 8/12/2021 |
| **Names of discussion participants:** | Sofi, Craig |
| **Discussion description:** | Staff having poor technical abilities.  Using non computer generated passwords to access company accounts.  Unsecure server host.  Unencrypted password storage |
| **Resultant actions:** | Education employees on proper saving systems of company data.  Give each employee computer generated passwords for company accounts.  Research safe and reliable server hosting services or build in house servers.  Give employees a secure password encryption service account. |

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| --- | --- |
| **Topic of Discussion:** | Cyber security |
| **Date:** | 8/12/2021 |
| **Names of discussion participants:** | Sofi, Craig |
| **Discussion description:** | Unencrypted password storage  Downloading random applications from the internet  Phishing emails  Poor defence against distributed denial of service attacks |
| **Resultant actions:** | Give employees a secure password encryption service account.  Educate employees on dangers of malware hidden in unsecure downloads from the internet.  Educate employees how to identify phishing emails, and the dangers of clicking random links in these emails.  Research and implement protection techniques. |

# Topic 2 – Research and identify sources of information

## 2.1 IP legislation and resources

References for this task

* List of websites listed on the *Assessment Briefs* page
* Subject materials
* Personal internet research

To complete this task you are required to;

1. Identify one (1) piece of Australian intellectual property (IP) legislation that would apply to the General Games Company. Record its URL location.

|  |  |
| --- | --- |
| **Legislation:** | Intellectual Property Laws Amendment Act 2015 |
| **Website:** | https://www.legislation.gov.au/Details/C2015A00008 |

## 2.1 IP legislation and resources cont.

1. Identify and record the URL of two (2) industry standard intellectual property (IP) websites.
2. Describe the purpose of each site.

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| --- | --- |
| **Website 1:** | https://www.ipaustralia.gov.au/ |
| **Description of Content/Use:** | The about us page says the following:  *We administer IP rights and legislation relating to patents, trade marks, designs and plant breeder's rights. We contribute to the innovation system more broadly by using our skills and experience to advise government and Australian businesses to make the most of their IP.*  This website is used to research ip rights and acquire guidance on how to manage interllectual property for our business.  Our business will be creating its own ip’s, with developers authoring creative work that we will own. According to the website:  *You can use our website to help you develop a strategy for your ip or employ an attorney or qualified person. Ultimately though, you are the keeper of your ip.* |

|  |  |
| --- | --- |
| **Website 2:** | <https://www.wipo.int/portal/en/> |
| **Description of Content/Use:** | According to the website, it is the global forum for intellectual property services around the world. They are a self-funding agency and are part of the United Nations.  Their mission according to their About Us page is:  *to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all. Our mandate, governing bodies and procedures are set out in the WIPO Convention, which established WIPO in 1967.*  This website would be beneficial to our company to provide global protection for the intellectual property of our games and employees. |

## 2.2 Copyright legislation and resources

To complete this task you are required to;

1. Identify the Australian copyright legislation that would apply to the General Games Company.
2. Record its URL location.

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| --- | --- |
| **Copyright legislation:** | Copyright Act 1968 |
| **Website URL:** | <https://www.legislation.gov.au/Details/C2021C00044> |

1. Identify and document two (2) industry standard copyright websites.
2. Describe the purpose of each site.

|  |  |
| --- | --- |
| **Website 1:** | https://www.copyright.org.au/ |
| **Description of Content/Use:** | There about page says:  *The Australian Copyright Council is an independent, non-profit organisation. Founded in 1968, we represent the peak bodies for professional artists and content creators working in Australia’s creative industries and Australia’s major copyright collecting societies.*  *We are advocates for the contribution of creators to Australia’s culture and economy, the importance of copyright for the common good. We work to promote understanding of copyright law and its application, lobby for appropriate law reform and foster collaboration between content creators and consumers.*  The ACC promotes their values of copyright laws by providing easily accessible and affordable practical, user-friendly information, legal advice, education, and forums on Australian copyright law for content creators and consumers.  There website is used to find answers or ask questions about copyright laws that you are not familiar with or to make sure your company or website is not violation them with any other company. |

|  |  |
| --- | --- |
| **Website 2:** | https://creativecommons.org/ |
| **Description of Content/Use:** | There about page says:  *A non-profit organization that helps overcome legal obstacles to the sharing of knowledge and creativity.*  *Provide Creative Commons licenses and public domain tools that give every person and organization in the world a free, simple, and standardized way to grant copyright permissions for creative and academic works; ensure proper attribution; and allow others to copy, distribute, and make use of those works.*  They provide people with tools, knowledge, courses about CC’s. A free and simple approach to providing Creative Commons licenses around the world.  A summit is hosted annually to bring together international groups of educators, artists, technologists, legal experts, and activists to promote open licensing and global access. |

## 2.3 Privacy policies

To complete this task you are required to;

1. Conduct some personal, online research to identify two (2) video game companies providing similar products/services to General Games Company.
2. Locate and review their privacy policies.
3. Briefly describe (in 2 to 3 sentences) the key points and purpose of each policy.
4. Provide the URL link to the policy.

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| --- | --- |
| **Organisation 1:** | Chaos Theory |
| **Policy URL:** | https://www.chaostheorygames.com/legal/privacy-policy |
| **Description of Content/Use:** | Data Collection and Processing  Information on the processing of Personal Data   * Analytics * Heat Mapping and session recording * User Database Management   The rights of users  Policy describes the user data collection and uses of this data, Google Analytics is used to track use of the Application, Heat Mapping is used to keep web traffic of user behaviour. |

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| **Organisation 2:** | Blow Fish |
| **Policy URL:** | https://www.blowfishstudios.com/privacy |
| **Description of Content/Use:** | Collection, use, and disclosure of their non-personal and personal information. Privacy Policy is accepted when customer registers for an account or installs a game developed by Blowfish Studios  Personal information collected:  Name, email address, phone number, home address, birth date, mobile phone number, credit card information, information from customers profile at SNS.  Non-personal information collected:  Mobile device , including IP Address , mobile device ID, network Media Access Control address and connection, username, user ID, feature usage, game play statistics, scores and achievements.  Personal and non-personal information is used to provide customers with new products, features, enhancements, special offers, upgrade opportunities, troubleshoot technical problems, and authentication purposes. |

# Topic 3 – Intellectual Property and Non-Disclosure Agreements

To complete this task you are required to;

1. Use the IP Contract Generator tool available on IP Australia (<https://www.ipaustralia.gov.au/understanding-ip/ip-contract-generator>) to create an NDA contract between your organisation and a contractor employed for service (for example, a sound engineer making music/sounds).

When using the tool, take into consideration the use cases of the business, as stated in the case study.

1. Upload your NDA contract to Canvas.

[Learner note: Naming convention – YourName.NDAcontract.pdf]

# Topic 4 – Understanding personally identifiable information

To complete this task you are required to review the business plan for the General Games Company. Answer the following questions in the spaces provided;

1. Identify five (5) pieces of personally identifiable information (PII) collected by the organisation.
2. Describe why, when and how the organisation uses each piece of PII.

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| --- | --- |
| **PII example** | **Why, when and how each piece of PII is used** |
| Title, Name, Gender | Accessible when players download and play our game, required for in-app purchases and keeping track of progress. |
| Billing Information, Paypal, Credit Card, Address etc… | Used to allow customers to make in app purchases, and for proof of purchase for warranty and refunds. |
| Contact Details, Address, Phone number, email | **General Games company maintains as association with the ICN Gateway, which is a connection service putting providers in contact with customers.** |
| **Employment Records** | **Record of past and present employees working at general games co.** |
| **Usage analytics** | **In game analytics are collected and analysed for quality control and understanding of target audience** |

1. Describe the potential risks that may result from the misuse or unauthorised access of PII.

|  |
| --- |
| breach of privacy / loss of data / leaked user info   * Credit/Debit card or Paypal information * Name, title, gender, DOB, age * Google sign in * Addresses, email addresses, phone numbers * Usage analytics * Employment records * Identity theft * Loss of accounts * Breach of privacy * Login details breached may make users targeted for hacking * Competition could learn trade secrets * Intellectual property stolen * Loss of business reputation * Harassment |

# Topic 5 – Developing privacy policies

To complete this task you are required to review the privacy policy for the General Games Company. Do the following;

1. Download the *Privacy Policy Template* available on Canvas.
2. Compare the existing General Games Companyprivacy policy against the requirements of the template and general industry standards.
3. Amend the General Games Company privacy policy using the template. Your final policy document should address all the business practices as proposed in the General Games Company business plan and aligns with industry standards.
4. Upload your Privacy Policy to Canvas.

[Learner note: Naming convention – YourName.PrivacyPolicy.pdf]

# Topic 6 – Develop a Code of Ethics

To complete this task you are required to develop a Code of Ethics for General Games Company that will guide the organisation when navigating potential ethical challenges. Follow these steps;

1. Read the business objectives and products described in the General Games Company business plan. Take note of the ethical challenges the company might face.

* The Adreptius
  + Taking advantage of the amount of time users spend on their phones
  + Disguising ads as content
  + Subscription based without remind of free trial running out
  + In your face ads
  + Asking for unnecessary permissions
  + Not explaining why you need permissions
  + Not letting users opt out of certain permissions
  + In your face pop ups
  + Predatory in-game microtransactions

1. Review the sample Code of Ethics documents provided on Canvas;

* Australian Computer Society
* International Game Developers Association
* Engineers Australia
* You may source one of your own (please provide the URL reference link).

1. Using the sample Codes as a guide, develop a Code of Ethics to align with the requirements of the General Games Company.
2. Upload your Code of Ethics to Canvas.

[Learner note: Naming convention – YourName.CodeofEthics.pdf]

1. Identify and justify any modifications you made to the sample Code of Ethics to meet the requirements of the General Games Company and align with industry standards. Write your response in the space below.

|  |
| --- |
| All I did was add the company name to the top of the document as I agree with all the codes and would stand by them myself. |

# Topic 7 – Developing Grievance Policies

Grievance policies and procedures are designed to manage the complaints or grievances within the organisation in relation to the application of the code of ethics.

**References for this task**

Explore the below resources and use this information when developing your grievance policy. Reference all sources used.

* **Employee Grievance Procedures – template:**

<https://resources.workable.com/grievance-procedure>

* **Vic guidelines for Dispute Resolution:**

<https://www.business.vic.gov.au/disputes-disasters-and-succession-planning/dispute-resolution>

* **NSW Anti-Discrimination - Making a Complaint:**

<https://www.antidiscrimination.justice.nsw.gov.au/Pages/adb1_makingacomplaint/adb1_makingacomplaint.aspx>

To complete this task you are required to;

1. Create an Employee Grievance Policy, based upon industry standards, for the General Games Company. Assume the company is situated in the state you study/live in.
2. Upload your Employee Grievance Policy to Canvas.

[Learner note: Naming convention – YourName.GrievancePolicy.pdf]

# Topic 8 – Manage cyber security

## 8.1 Research cyber security threats and stakeholder knowledge

To complete this task you are required to;

1. Identify and document at least five (5) cyber security threats to the General Games Company.
2. Describe how they can harm the organisation, employees and/or customers/clients.
3. Describe the level of awareness the General Games Company employees and customers should have against each threat.
4. Reference all information sources.

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| **Threat 1:** | Ransomeware |
| **Description of harm to organisation:** | Ransomware is a form of malware software that infects your systems and encrypts your files. The user cannot access their data until a ransom is paid in exchange for a decryption key. |
| **Level of organisational awareness required** | High  In 2020, 51% of surveyed businesses were hit by ransomware and it is expected that in 2021 a company will be hit by a ransomware attack every 11 seconds. |
| **References or URLs:** | <https://www.acronis.com/en-sg/articles/malicious-cyber-threats-2020/?gclid=EAIaIQobChMI6YWP1sLQ9AIVwg5yCh2XZgCzEAAYASAAEgLP8fD_BwE>  <https://www.acronis.com/en-sg/articles/what-is-ransomware/?gclid=EAIaIQobChMIpuSNjMPQ9AIVVpNmAh3K8w2LEAAYASAAEgLoHfD_BwE> |

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| **Threat 2:** | Malware |
| **Description of harm to organisation:** | Malware is any software intentionally designed to cause disruption to a computer, server, client, or computer network, leak private information, gain unauthorized access to information or systems, deprive users access to information or which unknowingly interferes with the user's computer security and privacy.  Any malware able to gain access to company files can lead to sensitive information leaks, loss in public trust, delayed productivity, and possible loss in profit. |
| **Level of organisational awareness required** | High |
| **References or URLs:** | <https://en.wikipedia.org/wiki/Malware>  <https://www.acronis.com/en-sg/articles/what-is-ransomware/?gclid=EAIaIQobChMIpuSNjMPQ9AIVVpNmAh3K8w2LEAAYASAAEgLoHfD_BwE> |
|  | |
| **Threat 3:** | Denial of Service (DoS) or Distributed Denial of Service (DDoS) |
| **Description of harm to organisation:** | A denial of service (DoS) is a type of cyber attack that floods a computer or network so it can’t respond to requests. A distributed DoS (DDoS) does the same thing, but the attack originates from a computer network.  A botnet is a type of DDoS in which millions of systems can be infected with malware and controlled by a hacker.  Distributed denial of service attacks can cause server outages and monetary loss and place excessive stress on IT professionals trying to bring resources back online. |
| **Level of organisational awareness required** | High |
| **References or URLs:** | <https://onlinedegrees.und.edu/blog/types-of-cyber-security-threats/>  <https://usa.kaspersky.com/resource-center/preemptive-safety/how-does-ddos-attack-work> |

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| **Threat 4:** | Man in the Middle |
| **Description of harm to organisation:** | A man-in-the-middle (MITM) attack occurs when hackers insert themselves into a two-party transaction. After interrupting the traffic, they can filter and steal data. |
| **Level of organisational awareness required** | High |
| **References or URLs:** | <https://onlinedegrees.und.edu/blog/types-of-cyber-security-threats/> |

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| **Threat 5:** | SQL Injection |
| **Description of harm to organisation:** | A Structured Query Language (SQL) injection is a type of cyber attack that results from inserting malicious code into a server that uses SQL. When infected, the server releases information. Submitting the malicious code can be as simple as entering it into a vulnerable website search box.  SQL injection attacks allow attackers to spoof identity, tamper with existing data, cause repudiation issues such as voiding transactions or changing balances, allow the complete disclosure of all data on the system, destroy the data or make it otherwise unavailable, and become administrators of the database server. |
| **Level of organisational awareness required** | Medium |
| **References or URLs:** | <https://onlinedegrees.und.edu/blog/types-of-cyber-security-threats/>  <https://en.wikipedia.org/wiki/SQL_injection> |

## 8.2 Develop Information and Communication Technologies (ICT) security policies

To complete this task you are required to review the General Games Company business plan. Do the following;

1. Download the ‘Cyber Security Policy.docx’ example from Canvas.

Other examples are also available on Canvas on the *Assessment Briefs* page.

1. Using the example, and referring to industry standards, develop the ICT security policy for the General Games Company to align with the company’s business plan. Consider all stakeholder requirements.
2. Upload your ICT security policy to Canvas.

[Learner note: Naming convention – YourName.ICTSecurityPolicy.pdf]

1. Reference all information sources.

<https://www.dpc.sa.gov.au/responsibilities/ict-digital-cyber-security/policies-and-guidelines/data>

## 8.3 Research ICT potential technical problems

To complete this task you are required to review the General Games Company strategic plan. Do the following;

1. Identify and record at least five (5) *technical problems* that the General Games Company may face when enacting its strategic plan.
2. Describe how these technical problems could harm the organisation, employees and/or customers/clients.

Examples include security risks, network communication issues, compatibility issues.

Review the AIE lectures for more examples.

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| **Problem 1:** | Communication between multiple development teams |
| **Description:** | Communication between multiple development teams may take time as people may not always respond with speed causing production to slow down. |

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| **Problem 2:** | Release on both PC and mobile |
| **Description:** | There is a compatibility issue to publishing to both platforms in terms of control scheme, two separate control types have to be set up in order for compatibility to work. |

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| **Problem 3:** | Work on larger, more expensive games. |
| **Description:** | Working on larger games requires a larger team to manage, allowing for more bugs and problems to occur within the company and game. |

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| **Problem 4:** | Multiple staff |
| **Description:** | Multiple staff allows for increased risks in breaches in security and user data. |

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| **Problem 5** | Focusing on in-game features rather than core mechanic |
| **Description:** | Many developers often waste precious time and focus in creating unnecessary in-game features that don't hold a lot of weight in affecting the overall success of your game. |

## 8.4 ICT gap analysis

Undertaking a critical analysis of General Games Company’s current ICT systems will guide your team in developing a solid action plan on how to meet the strategic direction of the organisation. This will require an evaluation of the organisation’s current ICT systems.

To complete this task you are required to;

1. Perform an ICT gap analysis on the General Games Company using the process steps noted below.
2. Propose ICT changes to address the gaps you identify. Where possible include a range of solutions to resolve each identified gap.
3. Use tools, like a cost-benefit analysis, to compare your proposed solutions and select your final recommendation.

*[Learner note: For the purposes of this exercise, if the case study documents do not provide detail regarding specific ICT infrastructure currently in use, you can assume that either the resources do not exist or are the bare minimum required to perform work tasks.]*

**Gap analysis process steps**

1. Download the “*ICT-Gap-Analysis-Template*” spreadsheet from Canvas.
2. Complete both the *hardware* and *software* sheets.
   1. *Refer to the Case Study documentation* to complete this document.
   2. Brainstorm details about your proposed business as you go.

A screenshot of the template document is provided below.



1. Upload your ICT gap analysis spreadsheet to Canvas.

[Learner note: Naming convention – YourName.ICTgapanalysis.pdf]

**Gap analysis process steps cont. over**

**Gap analysis process steps cont.**

1. Download the ‘*ICT-Work-Breakdown-Structure-Template.doc’. Y*ou may choose to use online tools like diagrams.net.
2. Complete the template.
3. Upload your ICT Work Breakdown Structure document to Canvas.

[Learner note: Naming convention – YourName.ICTworkbreakdown.pdf]

1. Document your final proposals in a **Work Breakdown Structure** detailing all the individual elements that need to be completed, considering the priorities and dependencies of each task.

A screenshot of the template document is provided below.

