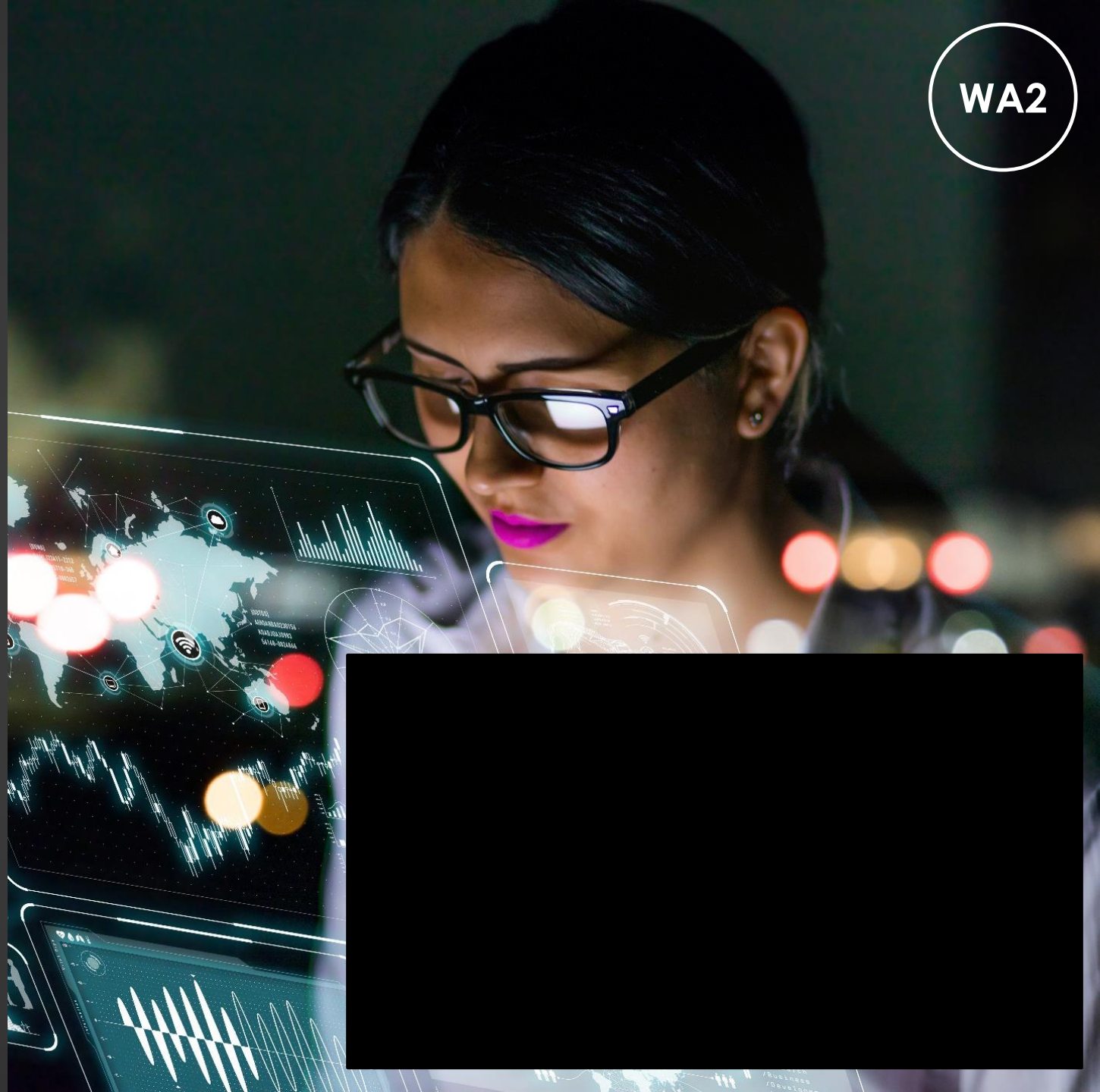WA2

WORKSHOPS

Workshop
Assignment 2

COSC372 / 572

MANAGEMENT INFORMATION SYSTEMS

MATTHEW WYSEL
THE UNIVERSITY OF NEW ENGLAND

1	Context	Topic 1: Ethical and Social Issues in Information Systems (Ch 4)	C		Ethical and Social Issu... Information Systems (C...
2	Context	Topic 2: Information Systems in Global Business (Ch 1&2)	C		Information Systems in Today (Chapter 1) Global E-business and (Chapter 2)
3	Context	Topic 3: Information Systems and Organisational Strategy (Ch 3)	C		Information Systems, C and Strategy (Chapter ...
4	Infrastructure	Topic 4: IT Infrastructure & Emerging Technologies: Internet, Telecommunications and Wireless Tech (Ch 5&7)	I		IT Infrastructure and Em... Technologies (Chapter... Telecommunications, th... Wireless Technology (C...
5	Infrastructure	Topic 5: Foundations of Business Intelligence: Databases and Information Management (Ch 6)	I		Foundations of Busine... Databases and Informa... Management (Chapter ...
6	Infrastructure	Topic 6: Securing Information Systems (Chapter 8)	I		Securing Information Sy... (Chapter 8)
7	Application	Topic 7: Operational Excellence / Customer Intimacy / Digital Markets & Digital Goods (Ch 9&10)	O		Achieving Operational E... Customer Intimacy: En... Applications (Chapter 9... E-Commerce: Digital M... Goods (Chapter 10)
Non teaching period 12 - 27 August 2017
8	Application	Topic 8: Managing Knowledge and Collaborations (Ch 11)	O		Managing Knowledge a... Collaborations (Chapter...
9	Application	Topic 9: Enhancing Decision Making using Information Systems (Ch 12)	O		Enhancing Decision Ma... 12)
10	Management	Topic 10: Building Information Systems (Ch 13)	M		Building Information Sy... 13)
11	Management	Topic 11: Managing Projects & Managing Global Systems (Ch 14&15)	Managing Projects (Ch... Managing Global Syste... 15)

WORKSHOPS

ASSIGNMENT 2

OVERVIEW
WHERE DO I START?
SECTION 1, 2, 3, 4
MARKING

How to Study COSC372 and COSC572

▶ Understand so you can Apply

Unit Information and Assessment Overview

◀ ▶

How to study the unit

A Suggested Approach to Reading Academic/Professional/ Technical Material Effectively

In this, as in other postgraduate units, you are required to read many academic/ professional/ technical articles. It is in your interest to develop a systematic and effective approach to undertaking reading of this nature. One approach that is definitely not effective is to read these articles from beginning to end as though they were novels.

One effective approach is as follows:

Firstly establish the subject or topic of the article and write it down in one sentence. Reading the title, abstract, and concluding section of the article should be sufficient for this purpose.

Secondly establish the main findings or conclusions of the article and write them down as a list of numbered points totalling about half a page. To do this you will need to supplement the reading of the title, abstract, and concluding section of the article with some reading of the body of the article. Skim through the article from beginning to end looking for its overall structure. Pay particular attention to headings and subheadings and to diagrams and tables. Read the first sentence of each paragraph. This should be sufficient for this purpose.

Thirdly consider whether you understand the authors' main findings or conclusions, how he or she arrived at them, whether you agree with them and/or how they were arrived at, and whether they are of academic and/or practical significance. To do this you will probably have to read the article further. Even if you end up reading every word of the article you will be more effective using this approach than reading the article from beginning to end as though it was a novel.

Online Delivery and Student Interaction

Information for this unit and forums dedicated to discussing unit material are available via the Internet. Students are expected to use the university's LMS (Learning Management System) for unit information and discussion. Internal student lecture notes, examination details etc. will be provided through the forums in Moodle. Queries should be raised in the forums where other students can assist to answer the query. The Coordinator will monitor discussion and intervene when considered necessary.

Assessment 2 - Overview

COSC372

COSC372 - Assignment 2

Must Complete: Yes

Weight: 25%

No. Words: 1500 words FIRM

Assessment Notes: Report. All assessment tasks must be attempted.

This assessment relates to:
Learning Outcomes 2 3

Assessment 2: Data Management in Social Business

Instructions

Assessment Task:

Research and critically analyse the use of data management by Atlassian or one of its subsidiaries. Your analysis should include examination of both successful and unsuccessful strategies. Provide a succinct report specifying:

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

Use each of these four tasks as the four headings in the body of your report.

In addition to your own primary and secondary research, you are required to reference the contextual, infrastructural and application-related considerations of data covered in the first nine (9) Unit Topics.

For your reference, the 9 Unit Topics to be addressed are:

- Context:
  - Topic 1: Ethical and Social Issues in InfoSys (Ch 4)
  - Topic 2: InfoSys in Global Business (Ch 1&2)
  - Topic 3: InfoSys and Organisational Strategy (Ch 3)
- Infrastructure:
  - Topic 4: IT Infrastructure & Emerging Technologies: Internet, Telecommunications and Wireless Tech (Ch 5&7)
  - Topic 5: Foundations of Business Intelligence: Databases and Information Management (Ch 6)
  - Topic 6: Securing Information Systems (Chapter 8)

COSC572

COSC572 - Assignment 2

Must Complete: Yes

Weight: 15%

No. Words: 1000 words FIRM

Assessment Notes: Report. All assessment tasks must be attempted.

This assessment relates to:
Learning Outcomes 2 3

Assessment 2: Data Management in Social Business

Instructions

Assessment Task:

Research and critically analyse the use of data management in one (1) subsidary of Microsoft. Your analysis should include examination of both successful and unsuccessful strategies. Provide a succinct report specifying:

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

Use each of these four tasks as the four headings in the body of your report.

In addition to your own primary and secondary research, you are required to reference the contextual, infrastructural and application-related considerations of data covered in the first nine (9) Unit Topics.

For your reference, the 9 Unit Topics to be addressed are:

- Context:
  - Topic 1: Ethical and Social Issues in InfoSys (Ch 4)
  - Topic 2: InfoSys in Global Business (Ch 1&2)
  - Topic 3: InfoSys and Organisational Strategy (Ch 3)
- Infrastructure:
  - Topic 4: IT Infrastructure & Emerging Technologies: Internet, Telecommunications and Wireless Tech (Ch 5&7)
  - Topic 5: Foundations of Business Intelligence: Databases and Information Management (Ch 6)
  - Topic 6: Securing Information Systems (Chapter 8)

Assessment 2 - Overview

COSC372

This assessment relates to:
Learning Outcomes 2 3

Assessment 2: Data Management in Social Business

Instructions

Assessment Task:

Research and critically analyse the use of data management by Atlassian or one of its subsidiaries. Your analysis should include examination of both successful and unsuccessful strategies. Provide a succinct report specifying:

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

Use each of these four tasks as the four headings in the body of your report.

In addition to your own primary and secondary research, you are required to reference the contextual, infrastructural and application-related considerations of data covered in the first nine (9) Unit Topics.

For your reference, the 9 Unit Topics to be addressed are:

- Context:
  - Topic 1: Ethical and Social Issues in InfoSys (Ch 4)
  - Topic 2: InfoSys in Global Business (Ch 1&2)
  - Topic 3: InfoSys and Organisational Strategy (Ch 3)

Assessment 2 – Where do I Start?

- ► Pick an organization
- ► Know your theory
  - ► Topics 1-3 – Context
  - ► Topics 4-6 – Infrastructure
  - ► Topics 7-9 – Application
  - ► Textbook and/or Lectures
- ► Read your personalized feedback for Assessment 1 as soon as it becomes available.

Assessment 2 – What do I do?

► Re-read the question: Be clear on what you're asked to do.

Assessment Task:

Research and critically analyse the use of data management by Atlassian or one of its subsidiaries. Your analysis should include examination of both successful and unsuccessful strategies. Provide a succinct report specifying:

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

Use each of these four tasks as the four headings in the body of your report.

In addition to your own primary and secondary research, you are required to reference the contextual, infrastructural and application-related considerations of data covered in the first nine (9) Unit Topics.

Assessment 2 – Introduction

- Define your understanding/definition of
  - Data,
  - Information,
  - Social media

- What (aspect of) data management are you targeting?

- What are the concepts you're about to expand?

Assessment 2 – Section 1

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

▶ Role of data in your chosen platform

▶ Purpose of data flow

  ▶ What are the business objectives?

  ▶ Ostensible Goal: Connect users + what?

    ▶ Entertainment, Economic Growth, Disrupt Markets??

  ▶ Underlying Goal: Make Money → + what?

▶ Form of data flow

  ▶ New Data Created?, Existing Data converted to Information?

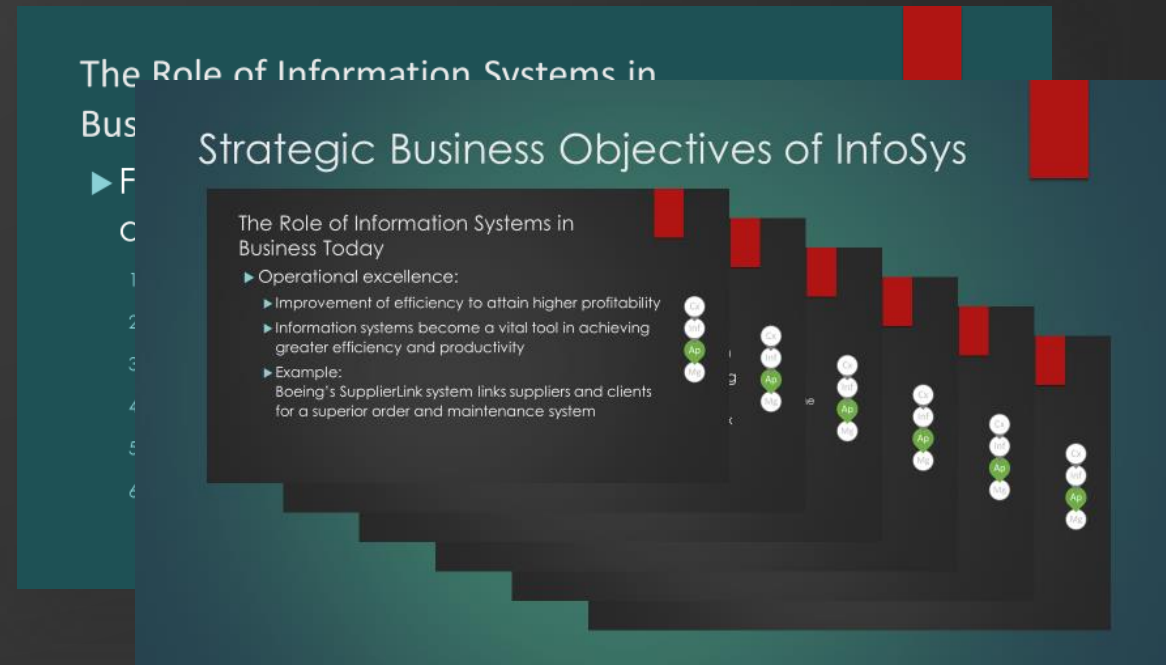## What is an Information System - Function
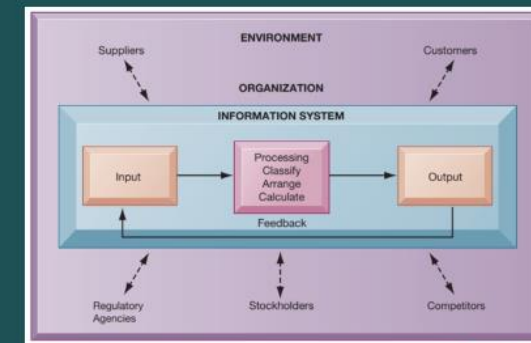
FIGURE 1.4 FUNCTIONS OF AN INFORMATION SYSTEM
An information system contains information about an organization and its surrounding environment. Three basic activities—input, processing, and output—produce the information organizations need. Feedback is output returned to appropriate people or activities in the organization to evaluate and refine the input. Environmental actors, such as customers, suppliers, competitors, stockholders, and regulatory agencies, interact with the organization and its information systems.

Assessment 2 – Section 1

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
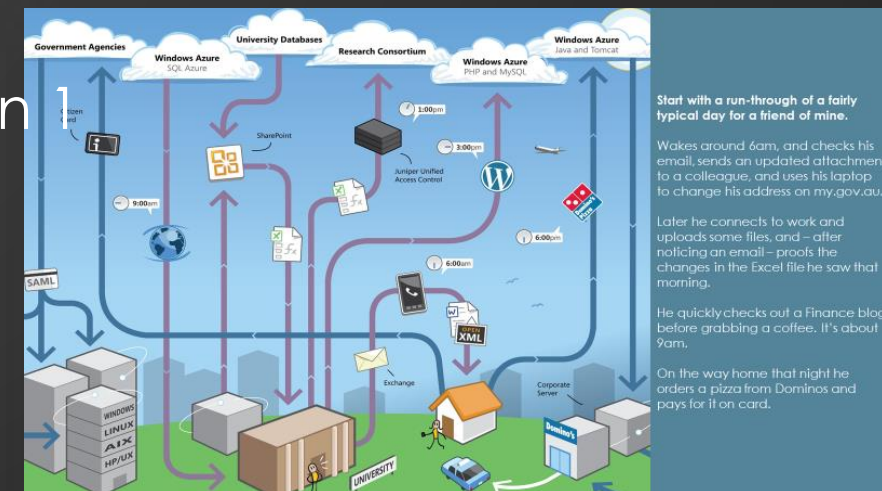4. Critical assessment of the impact of the platform's data management strategies. [Application]

- Role of data in your chosen platform

- Purpose of data flow
  - What are the business objectives?
  - Ostensible Goal: Connect users + what?
    - Entertainment, Economic Growth, Disrupt Markets??
  - Underlying Goal: Make Money → + what?
- Form of data flow
  - New Data Created?, Existing Data converted to Information?

Assessment 2 – Section 2

> 1. Objective(s) and strategies of data management by the platform, [Context]
> 2. Technical provision of data management capabilities, [Infrastructure]
> 3. Assessment of the function of the platform's data management systems [Application]
> 4. Critical assessment of the impact of the platform's data management strategies. [Application]

- ► Support data and information flow throughout the platform
- ► Data related functions
  - ► How is the Knowledge Management Value Chain supported?
  - ► Hint: Track the devices
  - ► See my example of this process Topic 4 Session 1

- ► How does the platform fulfill its strategies?

Start with a run-through of a fairly typical day for a friend of mine.

Wakes around 6am, and checks his email, sends an updated attachment to a colleague, and uses his laptop to change his address on my.gov.au.

Later he connects to work and uploads some files, and – after noticing an email – proofs the changes in the Excel file he saw that morning.

He quickly checks out a Finance blog before grabbing a coffee. It's about 9am.

On the way home that night he orders a pizza from Dominos and pays for it on card.

Start with a run-through of a fairly typical day for a friend of mine.

Wakes around 6am, and checks his email on an **exchange server,** uses a **Samsung Mail** app on a Google **Android** phone to open an **Microsoft .xls** attachment using the **OpenXML** standard;

He makes a change, and sends it back.

They've just moved, so let's say he uses **Mozilla Firefox** on his **Windows 10** laptop to log into the **my.gov.au** website – a series of **webapps** running on Web servers connect to App Servers which route his page-load requests to even more DB Servers running a series of **SQL databases**.

The **App Server** is instructed to initiate **2FA** which involves receiving an autogenerated PIN, automatically distributed via **SMS service**. As soon as he submits the address change, it begins propagating across 100s of heterogeneous government **servers**, running 1000s of virtualized **environments**, on a handful of host **operating systems**. It's not even 7am and he's hit 1000's of servers in multiple countries.

Later in the day he connects to work using an **IPSEC VPN** that creates a **VPC** to upload files currently stored on his **USB flash** drive. His colleague has uploaded the **.xls** file into their intranet - an **SPO** library.

He then takes a quick look at a Finance Blog – actually a **WordPress site** running **PHP**, and **MySQL** on a **virtualized compute instance** from a **Digital Ocean droplet** simultaneously pulling content from 4 contents and a 100 **edge locations**. It's only 10am.
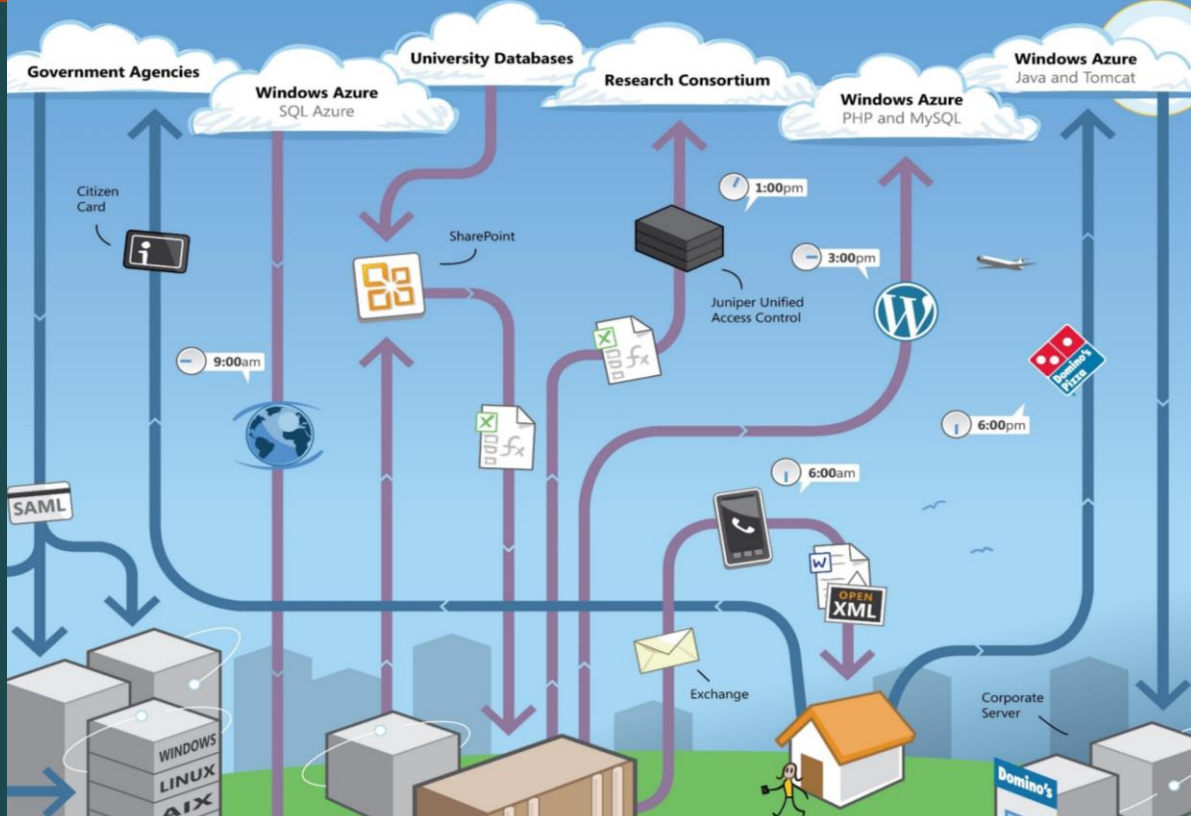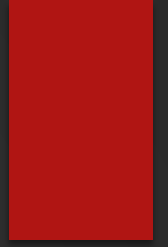

Let's skip to evening; he orders a pizza for collection from **Domino's Android App** which uses **Java** and **Tomcat** code deployed on **Windows Azure** platform, while **New Relic** tracks the time he spent on each screen in the App, aggregating the data alongside the 100,000s of other users, displaying real-time summaries on a web dashboard to analysts in California thanks to **Ruby on Rails** and **Python**.

Fortunately he paid for his pizza in cash.

He still hasn't woken up Xero - the shop's **cloud-based payment system**, or any of Mastercard's **PCI-compliant transaction servers**.

Assessment 2 – Section 3

> 1. Objective(s) and strategies of data management by the platform, [Context]
> 2. Technical provision of data management capabilities, [Infrastructure]
> 3. Assessment of the function of the platform's data management systems [Application]
> 4. Critical assessment of the impact of the platform's data management strategies. [Application]

- Start with the 'Four dimensions of knowledge in an organisation' (T8)

- How is the Knowledge Management Value Cycle supported within the business?

- Knowledge management systems

  - Enterprise-Wide KMS, KWS, Intelligent Techniques

- Decision Making Supported? (T9)

  - Users, Managers/Employees

- Business Intelligence and Business Analytics

The Role of Knowledge Management in Business

- Four dimensions of knowledge in an organisation
  - Knowledge is a firm asset
  - Knowledge has different forms
  - Knowledge has a location
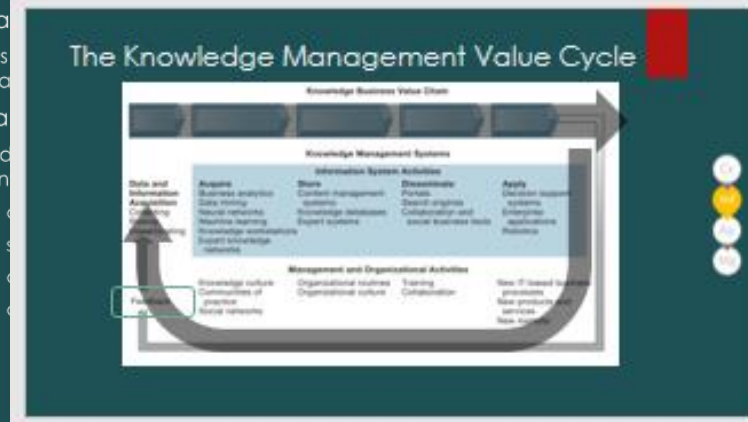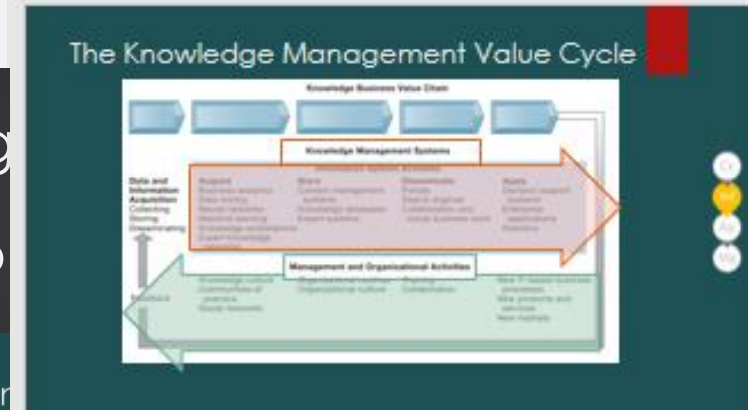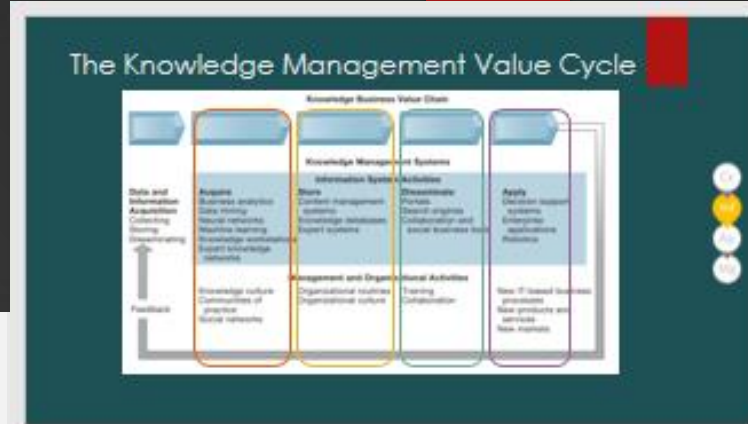 - Knowledge is situational

Assessment 2 – Section 3

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

▶ Start with the 'Four dimensions of knowledge in an organisation' (T8)

▶ How is the Knowledge Management Value Cycle supported within the business?

▶ Knowledge management systems

  ▶ Enterprise-Wide KMS, KWS, Intelligent Techniques

▶ Decision Making Supported? (T9)

  ▶ Users, Managers/Employees

▶ Business Intelligence and Business Analytics

The Role of Knowledge Management in Business

▶ Knowledge management
  ▶ Set of business processes developed in an organization to create, store, transfer, and apply knowledge
▶ Knowledge Management Value Cycle
  ▶ Each stage adds value to raw data and information as they are transformed into usable knowledge
    ▶ Knowledge acquisition
    ▶ Knowledge storage
    ▶ Knowledge dissemination
    ▶ Knowledge application

Assessment 2 – Section 3

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

▶ Start with the 'Four dimensions of knowledge in an org

▶ How is the Knowledge Management Value Cycle sup
  the business?

▶ Knowledge management systems

  ▶ Enterprise-Wide KMS, KWS, Intelligent Techniques

▶ Decision Making Supported? (T9)

  ▶ Users, Managers/Employees

▶ Business Intelligence and Business Analytics

Assessment 2 – Section 4

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

▶ What is the broader impact of the platform's strategies?

▶ Ecosystem impact:

   ▶ Competitors, New market entrants, Suppliers, Substitute Products, Customers

▶ Company-centric impact:

   ▶ The Balanced Scorecard Framework

   ▶ Customers, Finances, Business Processes, Organisational Learning + Growth

Dimensions of Information Systems

Assessment 2 – Section 4

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

▶ What is the broader impact of the platform's strategies?

▶ Ecosystem impact:

    ▶ Competitors, New market entrants, Suppliers, Substitute Products, Customers

▶ Company-centric impact:

    ▶ The Balanced Scorecard Framework

    ▶ Customers, Finances, Business Processes, Organisational Learning + Growth

The Balanced Scorecard Framework

Financial
- Cash flow
- Return on investment
- Financial result
- Return on capital employed
- Return on equity

Customers
- Delivery performance
- Quality performance
- Customer satisfaction
- Customer loyalty
- Customer retention

Firm Strategy and Objectives

Business Processes
- Number of activities
- Process execution time
- Accident ratios
- Resource efficiency
- Equipment downtime

Learning and Growth
- Investment rate
- Illness rate
- Internal promotions %
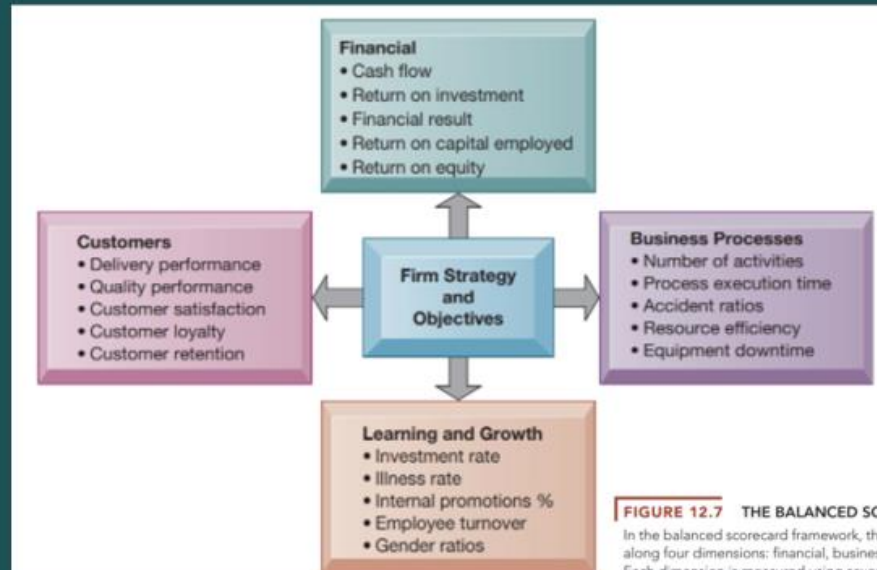- Employee turnover
- Gender ratios

FIGURE 12.7 THE BALANCED SCORECARD FRAMEWORK
In the balanced scorecard framework, the firm's strategic objectives are operationalized along four dimensions: financial, business process, customer, and learning and growth. Each dimension is measured using several KPIs.

Assessment 2 - Overview

Assessment Task:

Research and critically analyse the use of data management by <u>Atlassian</u> or <u>one of its subsidiaries</u>. Your analysis should include examination of both successful and unsuccessful strategies. Provide a succinct report specifying:

1. Objective(s) and strategies of data management by the platform, [Context]
2. Technical provision of data management capabilities, [Infrastructure]
3. Assessment of the function of the platform's data management systems [Application]
4. Critical assessment of the impact of the platform's data management strategies. [Application]

Use each of these four tasks as the four headings in the body of your report.

Assessment Criteria:

- Demonstration of a sound knowledge of storing, managing, and processing data to yield relevant information in an information system, with focus on both business process and information technology (10%),
- Demonstration of an understanding of the role business intelligence (BI) and business analytics (BA) play in adding value to a business (10%).
- Writing style at an academic level, with sustained arguments and appropriate use of references (5%).

Marking Rubric:

Assessment 2 - Overview

COSC372

COSC372 – Assessment 2 Data Management in Social Business

Criteria / Components	Basic	Good	Excellent
Demonstration of a sound knowledge of storing, managing, and processing data to yield relevant information in an information system, with focus on both business process and information technology (10%)			
Focus on how the principles of information systems apply within organisations: the principles management must consider when implementing information systems effectively to maximise resulting organisational value.	Limited demonstration of understanding of principles, practices and roles of information systems within organisations. Limited reference to Unit theory. (0-4 Marks)	Demonstration of understanding of the techniques, practices and processes of information systems within organisations. Assessment of information systems in specific contexts. Specific reference to Unit theory (4-8 Marks)	Demonstration of an in-depth understanding of the techniques, practices and processes of information systems within organisations. Assessment of the appropriateness of information systems to specific tasks, business objectives and strategies. Specific reference to both Unit theory and wider reading. (8-10 Marks)
Demonstration of an understanding of the role business intelligence (BI) and business analytics (BA) play in adding value to a business (10%)			
Moving beyond knowing the theory, how well can you apply theory?	Restating general concepts; limited reference to Unit theory. Little application. (0-4 Marks)	Acknowledging general concepts regarding BI and BA. Linking specific Unit theory to specific business examples. (4-8 Marks)	Evaluation of general concepts regarding BI and BA. Evaluating of specific Unit and academic theory to specific business examples. (8-10 Marks)
Writing style at an academic level, with sustained arguments and appropriate use of references (5%)			
Is your writing at a senior undergraduate academic level, suitable for review and assessment by other highly skilled readers?	Restatement of popular opinion; sweeping generalisations; little critical thought or reflection. Inadequate referencing. (0-2 Marks)	Appropriately researched and constructed paper with evidence of higher-level thought and arguments. Adequate referencing throughout. (2-4 Marks)	Well researched and constructed paper with evidence of higher-level thought and analytics in both sources cited and evaluation derived. Sustained arguments. Appropriate referencing of appropriately broad research throughout. (4-5 Marks)