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Before you begin

This learner guide is based on the unit of competency *BSBMGT407 Apply digital solutions to work processes*. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: www.training.gov.au.

How to work through this learner guide

This learner guide contains a number of features that will assist you in your learning. Your trainer will advise which parts of the learner guide you need to read, and which practice tasks and learning checkpoints you need to complete. The features of this learner guide are detailed in the following table.

Icon	Feature of the learner guide	How you can use each feature
	Learning content	Read each topic in this learner guide. If you come across content that is confusing, make a note and discuss it with your trainer. Your trainer is in the best position to offer assistance. It is very important that you take on some of the responsibility for the learning you will undertake.
	Examples	These highlight learning points and provide realistic examples of workplace situations.
	Practice tasks	Practice tasks give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which practice tasks to complete.
	Video clips	Where QR codes appear, you can use a smartphone or other device to access video clips relating to the content. For information about how to download a QR reader app or accessing video on your device, please visit our website: www.aspirelr.com.au/help
	Summaries	Key learning points are provided at the end of each topic.
	Learning checkpoints	There is a learning checkpoint at the end of each topic. Your trainer will tell you which learning checkpoints to complete. These checkpoints give you an opportunity to check your progress and apply the skills and knowledge you have learnt.



Topic 1

Use digital workplace information

The digital workplace is a user-friendly work environment that facilitates innovative, creative and flexible working practices.

It includes all the technologies staff use to do their jobs. This can range from core business applications to email, instant messaging, social media tools, intranets and portals. Advances in technology are driving changes in the digital workplace. Intelligent work processes and work management practices have been made possible by digital technology, which are reinventing much of the way that businesses are run.

A digital workplace is important because it lowers the dependence on a physical work location and allows flexibility in the way people work, how teams are formed, and how peers can come together to share ideas and solve workplace problems.

Digital information includes any data that is created, stored and retrieved using digital platforms, tools and environments. It includes content that is digitally broadcast, streamed or contained in computer files. Workplace supervisors, managers and team leaders need to identify, use and review digital information, trends and new technologies to improve employee engagement and drive performance change.

In this topic you will learn how to:

- 1A Identify and use digital information
- 1B Review digital information, trends and technologies

Watch the unit introduction video here.



Communications

To ensure the right information reaches the right audience, employees need digital tools and applications that support two-way communication and the personalisation of content.

Digital communications allow organisations to connect with employees, customers, suppliers and business partners across borders, languages, time zones and generations. Teams connect authentically as they would in person, using a range of easy-to-use applications and tools.

Here are some examples of digital workplace applications used for communications.

Live video streaming

Live video streaming is useful for internal workplace communications because of how easy it is to quickly get a message out to a distributed workforce. Many organisations use live video to conduct staff meetings, sales meetings and presentations to the whole organisation.

Intranet

The intranet is a central portal where everyone in the organisation can access information, communications, documents and contracts in one place. Social intranet software lowers IT maintenance costs by allowing employees to use their own devices to access workplace information through a centralised platform.

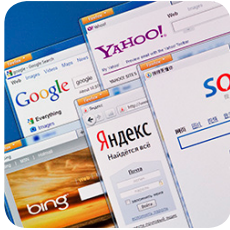
Instant messaging

Private, group messaging and chat room applications such as Yammer, Lync and Basecamp allow employees and work teams to collaborate and communicate in real time across different geographical locations and time zones. This is important when managers need updates on the progress of projects or when they need to quickly communicate with team members.

Discussion forums

Online discussion forums allow all members of an organisation to participate in open discussions on a topic. This helps to disseminate information, gather support and allow employees to ask questions, discuss projects and resolve workplace issues in a moderated environment.

Digital information sources



- Office applications, such as word-processing documents, spreadsheets and presentations
- Online platforms, such as the intranet, portals, public websites and records of transactions
- Business information systems, such as databases, geospatial data systems, human resources systems, financial systems, workflow systems, customer management systems, electronic documents and record management systems
- Digital communication systems, such as email, instant messaging, voicemail, short messaging services (SMS), multimedia messaging services (MMS), video conferencing and teleconferencing
- Cloud service panels, data centre panels, information and communication technology (ICT) hardware panels, mobile panels and telecommunication panels

Benefits of using digital technology



- Sharing information instantly
- Recording and searching for information
- Working sustainably by minimising paper and printing costs, and physical storage space
- Securely storing and retrieving information quickly



Practice task 1

Check your understanding of identifying and using digital information.

Question 1

Think of a business you are familiar with or one that you have visited in the last week. Answer the following questions:

- a) What types of digital information might it use?
- b) Where would the business source the digital information from?

1B

Review digital information, trends and technologies

Technology is continually changing the way we do business.

To remain current and relevant, it is important to keep up to date with the latest trends and technologies in the digital workplace, and know exactly how they will affect your business. Continually reviewing digital innovations helps you to select digital solutions that improve your work processes and help you to remain competitive in the digital marketplace.

You should also review digital information sources for validity and reliability to ensure that the information you use to make decisions about your business is accurate, appropriate and fit for purpose.



Review digital sources for validity and reliability

Whenever you locate and use digital information to support workplace operations, you must evaluate information sources for reliability, accuracy and appropriateness.

You must be especially mindful of information that may be false, misleading or private. For example, while social media can provide instant news faster than traditional news sources, there is an ever-increasing need to verify and determine the accuracy of this information. While blogs and wikis may have a great wealth of information, the content may be influenced by personal feelings or opinions. Information posted on the internet is not regulated for quality or accuracy, so all information used in or by your organisation must be checked very carefully.

Consequences of using unreliable information include damage to the organisation's reputation, financial loss and disruption to work processes due to misinformation. Unsecured websites can be hacked by external parties, personal and financial information can be stolen, or data can be lost or corrupted.

Once you decide which digital tools, platforms and environments to use, you should develop a comprehensive plan for content development to ensure you are consistent when sharing information across various digital channels.

Here are some criteria you can use to review and evaluate digital information and sources.

Authority

- Is the author identified and recognised as an expert in their field?
- Is there enough information provided to establish the author's credibility?
- Is the author qualified to write about the subject? What are the author's credentials?
- Is the author affiliated to an academic institution or credible organisation?



Summary

- A digital workplace is important because it lowers the dependence on a physical work location and allows flexibility in the way people work, how teams are formed, and how peers come together to share ideas and solve workplace problems.
- Providing employees with seamless access to digital workplace applications, regardless of time and location, increases productivity and supports collaboration with colleagues, partners and customers.
- Digital services deliver digital content across multiple platforms and devices, such as mobile and internet. Information is presented in a way that is easy to use and understand.
- Digital workplace information should be structured in a way that helps people to do their jobs and to coordinate work processes, practices and projects in ways that deliver meaningful outcomes.
- Organisations should ensure that any policies and procedures introduced are necessary and relevant, and that managers have the capacity and capability to work within the policy framework.
- Every piece of content you create should be carefully designed to achieve your goals, such as driving customers to your business or improving employee job satisfaction.
- Information management requires an integrated approach to locating, capturing, evaluating, retrieving and sharing an organisation's information assets.
- IT data and systems are at risk of hacking, malware, viruses, spam and online scams that may corrupt your hardware or allow criminals to steal private data. Proper data and online security can protect your organisation from internal and external threats.
- Whenever you locate and use digital information to support workplace operations, you must evaluate information sources for reliability, accuracy and appropriateness.
- Keeping up with digital trends and technologies, and incorporating them into your daily business operations is essential if you want to remain competitive in the digital marketplace.



Practice task 5

Check your understanding of selecting and implementing digital solutions.

Question 1

Match the beginning of each sentence about digital solutions to the correct ending.

- | | |
|---|---|
| * Organisations may need to build a customised platform for | * combining different sub-systems, so that digital data contained in each becomes part of a larger, more comprehensive system capable of sharing data more efficiently. |
| * Digital integration refers to the process of | * combine new or existing hardware, software and other communications. |
| * Web developers integrate | * the business's needs and the limitations of the systems and services they want to integrate. |
| * Custom integration of digital services depends on | * the business website with marketing automation software that brings customer information directly into the CRM system. |

Question 2

Match each digital solution with the correct definition.

- | | |
|---------------------------|--|
| * Wearable technology | * Intelligent machines that work and react like humans, and are capable of speech recognition, learning, planning and problem-solving. |
| * Data analytics | * Uses sensors to monitor a person and connect them wirelessly to their smartphones or other devices. |
| * Automation | * Refers to qualitative and quantitative techniques and processes used to recognise behavioural patterns, improve productivity and add business value. |
| * Artificial intelligence | * Machines that can carry out work processes and activities usually performed by people. |

IT support



IT systems are essential to operating a digital workplace. The IT department is responsible for ensuring the smooth operation of all digital work processes and activities. IT work processes include implementing software, providing direct operating assistance in software use and data management across the whole organisation.

Digital solutions could be applied to IT work processes by:

- linking separate IT systems and software so that they become self-acting and self-regulating
- creating a paperless workplace by storing and managing all company data electronically or online
- using a virtual help desk that allows IT support workers to provide virtual assistant and support to users experiencing technical issues.

Administration and management



The administration and management team handles the day-to-day business, planning, and decision-making of an organisation. This department links with other departments to ensure consistent workplace operations and constant flow of information. Administrative and management work processes include project management, financial review and clerical processes, such as reception.

Digital solutions could be applied to administrative or management work processes by:

- implementing workflow management software to automate time tracking, issue tracking, project management and task management
- using data analytics to produce key performance indicator (KPI) reports that measure the performance of different business areas and departments
- using intelligent personal assistants to assist employees to complete certain tasks.

Customer service support



The customer service department provides support to and interacts with customers. Some organisations have customer service support centres focused on creating and maintaining customer relationships. Customer service work processes include handling inquiries, processing orders and managing customer complaints.

Digital solutions could be applied to customer service support by:

- implementing a 24/7 virtual customer service desk with trained operators on hand to provide customers with prompt and personal responses
- providing online customer self-service so that customers can manage their own accounts and transactions
- managing multiple departments, including technical support, business inquiries and billing, from a single ticketing system.

Operations



The operations department designs, controls and monitors the production of goods and services. This department designs practices to manufacture products or deliver services more efficiently. Operational work processes include acquiring raw materials, managing supplier relationships and developing strategies to save operational costs.

Digital solutions could be applied to operational work processes by:

- using supplier relationship management (SRM) software to manage and analyse supplier interactions and data
- using data analytics to identify operational issues and improve work processes
- automating inventory reordering processes so the production department has access to the materials it needs at all times.

Research and development



Research and development identifies new competitive opportunities. The research and development department is responsible for product innovations, staying up to date with the latest technologies and trends, and finding ways to stay ahead of the competition.

Digital solutions could be applied to research and development work processes by:

- using sophisticated analytical tools to organise, coordinate and analyse market trends and consumer behaviours
- using data analytics to determine the economic viability of research and development projects
- using digital technologies to support virtual collaboration.

Legal



An organisation's internal legal department oversees and identifies legal issues in all other departments. Not all organisations need an internal legal department, and many outsource legal work to external practitioners. Internal legal work processes include handling customer complaints, monitoring organisational compliance with laws and regulations, and filing legal documents.

Digital solutions could be applied to legal work processes by:

- using compliance management software to monitor and meet regulatory requirements and deadlines
- using AI, robots and expert systems to automate legal advice
- using electronic filing solutions to sign and lodge legal documents.

Video: What will future jobs look like?

To support your learning, you may like to watch this TED talk in which economist Andrew McAfee discusses what future jobs might look like, and how to educate future generations to find and keep them.



Make it easy

Introduce better ways for employees to do their work with widespread operational impact. Some technologies require more skills and knowledge than others. When making choices about which digital innovations to integrate into your workplace, investigate access to support should you require it.

Consider future costs

Estimate the minimum, average and highest category pricing of any digital innovation to get an idea of the resources you will need when you fully integrate it into workplace operations. Some things to consider include the number of people using the technology, annual pricing and invoicing methods, and how easy it is to access and retrieve digital data if you decide to change technologies.

Example

Select, use and review digital solutions

Melanie is the chief information officer (CIO) at Credit Lender, a large financial services company. As the company has not been performing well over the last two years, extreme measures have been put in place to save costs and keep the company afloat.

Melanie is responsible for implementing digital solutions that improve the Credit Lender's online presence, automate work processes and exceed industry standards in compliance. She wants to develop an interactive financial calculator to drive traffic to the company's website and generate quality leads.

Melanie outsources the development work to a digital service provider (DSP) that specialises in financial technology. The DSP develops a customised self-service financial calculator that enables users to calculate borrowing power, loan repayments and savings. The calculator will be placed on Credit Lender's website and will be designed for use on a range of devices. The calculator is integrated into the DSP's unique configuration console. This means that the DSP can quickly make any changes to the calculator at Melanie's request through an application program interface (API).

After six months, Melanie reviews the success of the calculator and discovers that traffic flow to Credit Lender's website has increased by 15 per cent.

Watch the example video here.



Step 7

Determine the costs

- Consider the costs associated with the training methods to the extent that the methods selected will address performance gaps and meet digital workplace objectives.
- Costs may include:
 - program development
 - training and assessment resources
 - training evaluation and reporting
 - travel expenses
 - lost productivity from time spent in training.

Step 8

Evaluate training

- Measure how well the learning and development activities met training and digital workplace objectives.
- Observe employees to identify whether they have retained and applied the information and competencies received.
- Assess whether training improved employees' digital skills and literacy levels, and met other organisational objectives.

Develop a training program

Once digital training needs and goals have been determined, you should develop a training program.

This involves selecting methods and activities that achieve training and digital workplace objectives.

When planning a training program, consider the following:

- Who is the target audience, what is their level of competence and what type of training best suits their needs?
- What are the costs of training and how will these be met?
- When and where will the training take place?
- What training resources are already available?
- Who will develop any other training materials needed?
- How will the training be structured to meet the needs of a diverse workforce?
- How will training be delivered and who will deliver it?
- What are the learning outcomes and performance criteria that must be met?
- What is the length and duration of the training program?
- When must outcomes be achieved?
- How will learning be assessed?
- What methods will be used to evaluate the effectiveness of the training program?



Learning checkpoint 2

This learning checkpoint allows you to review your skills and knowledge in relation to leading work processes in a digital environment.

1. Briefly explain how you would select, integrate and use digital services and solutions in your workplace.

2. Briefly explain how you would review and select digital solutions that are fit for purpose.

3. What are key factors you need to consider when integrating new digital innovations into the workplace?



Topic 3

Recognise and apply intellectual property requirements

Intellectual property (IP) is intangible property that is the result of human intelligence and creation.

It includes inventions, copyright, trademarks and brands, designs and the application of an idea. To protect your idea under IP laws, it must be something new or original.

Until recently, IP was a specialised field that only applied to inventors, and corporate research and development managers. But in today's digital economy, where ideas and innovation drive economic growth and business success, IP has moved to the forefront as a key success factor in a wide range of professions and industries.

When applying digital solutions to work processes, you must identify your IP obligations, review your digital processes for compliance, and document and report IP issues as they arise. The unauthorised distribution of digital information and materials among employees could create a potential liability and place your business at legal, financial and reputational risk.

In this topic you will learn how to:

- 3A Identify intellectual property obligations
- 3B Review digital processes for compliance
- 3C Document and report intellectual property issues

Trade secrets



A trade secret (or confidential information) refers to knowledge of an idea or process that is known only to people inside an organisation. It is up to the organisation to protect that knowledge, such as by ensuring employees or distributors sign confidentiality agreements.

Examples of trade secrets include the recipe for Coca-Cola, and the combination of herbs and spices used by KFC.

Other types of IP



Other types of IP include circuit layouts and plant breeder's rights.

Circuit layouts are the layout designs or plans (topographies) of integrated circuits used in computer-generated equipment, also referred to as computer chip or semi-conductor chip designs. These rights are handled by the Australian Government Department of Communications and the Arts.

Plant breeder's rights are exclusive commercial rights for a registered variety of plant. These rights protect plant breeders and give them a commercial monopoly for 20–25 years. This encourages innovation, and means that new plant varieties are freely available to anybody when the protection period lapses.

The legal basis for plant breeder's rights in Australia can be found in:

- *Plant Breeder's Rights Act 1994 (Cth)*
- *Plant Breeder's Rights Regulations 1994 (Cth)*.

Examples include cotton plants with insect resistance, grapevines and the pink iceberg rose.

Adapted from: IP Australia (<https://www.ipaustralia.gov.au/>) © Commonwealth of Australia 2017

Copyright laws

Copyright protection is provided under the Copyright Act 1968 (Cth) and gives copyright owners exclusive rights to copy the work, perform it in public, broadcast, publish or make an adaptation of it.

Each country has its own copyright laws. In Australia, copyright laws became the responsibility of the Australian Government Department of Communications and the Arts in 2015.

While there is no such thing as international copyright, there are international treaties that govern it. The oldest and most important of these is the Berne Convention, which was first signed in 1886 in Berne, Switzerland. The Berne Convention sets minimum standards for copyrighted works.

Here are some examples.

Literary works

This includes blogs, books, cartoons, emails, letters, magazines, memos, newspapers, newsletters, trade journals, training materials and other written material in print or digital format.

3B

Review digital processes for compliance

You need to review digital processes and applications for compliance with IP requirements.

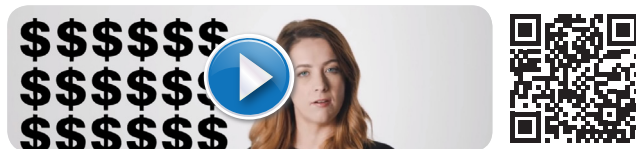
Reviewing your digital processes helps to protect your IP and identify risks to avoid inadvertently infringing on the IP of others.

You should carry out an IP audit (also known as IP due diligence) to review the IP owned, used or acquired by your business. This helps to identify what IP exists within your organisation, who owns it, the value of that IP, its legal status and what to do with it.

For example, Company A is a family-run company that has produced a particular award-winning product for 30 years and sold this product at \$20–\$50 per unit. They have built an excellent reputation with this product. Company B enters the market, producing a very similar product and using a very similar brand name. It sells the product for only \$5. Nearly 20 million units of this cheaper product have sold.

Company A receives numerous customer complaints about the poor quality of the cheaper product, even though it is not their product. Company A starts to see how their product brand name is a tangible asset and they are concerned this cheaper, low-quality product is starting to negatively affect their reputation and sales. Company A takes legal action and Company B eventually agrees to change their brand name.

For more information about balancing the cost and benefits of protecting your IP, watch this video.



Outline IP risks related to digital technology

Digital technology and the internet have made it possible to instantly share and easily duplicate the work of others.

According to the Australian Federal Police, IP crimes occur when someone uses a particular brand, logo, design or piece of music or creative work with no right to do so. IP crime is a significant problem worldwide.

Here are some examples of IP risks to an organisation in relation to digital technology.

IP ownership issues

These issues occur when it is unclear who created the digital technology, or whether the individual who created it was an employee or a third-party contractor engaged by your business at the time.

It may be unclear whether the individual who created the work was an employee or an independent contractor. For IP rights subject to registration, it is easy to establish the extent of protection granted by the IP right; for example, patents exhaustively describing the exact scope of the invention. For IP rights that are not subject to registration, such as copyright, the property being protected must be objectively identified. For example, in the case of a sound recording, this is often done by providing the court with a copy of the master tape.

Failing to secure ownership of IP could lead to the following problems:

- You may be unable to protect, exploit or commercialise that IP because someone else has rights to it.
- If a third-party investor's due diligence exposes your IP ownership problems, the inventor may choose not to proceed with the deal. They may also demand that any deal be conditional on you resolving the problem, or may discount the value of your IP assets.
- You may be unable to give warranties and indemnities (e.g. that you own the IP) to customers, licensees, or other third parties regarding the IP. This may jeopardise future commercial negotiations.
- You may not be able to stop an employee or third party from using or exploiting the IP.

Monitor compliance

You need to monitor adherence to organisational and legal requirements relating to IP, and identify areas where employees may need further training or support.

Employees should have a basic understanding of IP rights and requirements. This helps to ensure that they properly manage and control any IP they create and make sure they do not infringe on the IP rights of others.

Ways to monitor compliance include:

- Review IP policies and procedures regularly to ensure they are current and in line with organisational changes.
- Consult with staff to develop, implement and monitor IP policies and procedures to promote stronger awareness, understanding and ownership of the outcome.
- Define key terms used in IP policies and procedures so that employees understand them, and know what workplace behaviours are expected of them.
- Document and report on any IP infringements made by your employees (whether or not this was intentional), and identify what led to the infringements taking place.
- Explain IP policies and procedures to employees by carrying out information and/or training sessions during team meetings and induction sessions for new staff.
- Apply IP policies and procedures consistently throughout your organisation.
- Deal with policy breaches promptly and according to the procedures.



Question 2

Which of the following statements about monitoring compliance with organisational policies and legal requirements related to IP are correct? Tick all that apply.

- ☐ Review IP policies and procedures regularly to ensure they are in line with changes in the organisation.
- ☐ IP policies and procedures only need to be explained to management as staff don't need to understand what IP relates to.
- ☐ Apply IP policies and procedures consistently throughout the organisation, and deal with policy breaches promptly according to procedures.
- ☐ Document and report on any IP infringements made by employees, and identify what led to the infringement.
- ☐ Consult with staff to implement and monitor IP policies and procedures to promote stronger awareness, understanding and ownership of the outcome.

Question 3

Which of the following are examples of common IP issues and ways to manage IP risks in the workplace? Tick all that apply.

- ☐ It is illegal to limit employee access to certain information so they cannot access it when they are away from work or when their employment has been terminated.
- ☐ Use internal reporting systems that allow employees and external sources to report counterfeit technologies and IP theft.
- ☐ IP rights are infringed when a digital technology protected by IP laws is used, copied or exploited without having the proper permission from the person who owns those rights.

Watch the example video here.



Practice task 10

Check your understanding of documenting and reporting intellectual property issues.

Question 1

Which of the following statements about reporting IP issues are correct? Tick all that apply.

- ☐ Written reports must be clear, concise and professionally presented.
- ☐ Written reports should not contain the results of research or investigations.
- ☐ When creating digital technology IP for use in your workplace, you may need to provide verbal reports and presentations to communicate your ideas.
- ☐ When presenting a verbal report about IP issues, use language and features appropriate to the audience.

Question 2

Which of the following statements about documenting, registering and reporting matters related to IP are correct? Tick all that apply.

- ☐ Ensure you have contracts and agreements in place about IP issues that clearly state who owns the IP and what rights each party has.
- ☐ Use an IP register or database to record all information relating to IP rights, permissions and licences owned by the business.
- ☐ IP matters should be reported to the appropriate person in your workplace to resolve ownership issues, make decisions about IP renewals and mitigate potential risks.
- ☐ An IP register related to digital processes updates itself automatically.



Learning checkpoint 3

This learning checkpoint allows you to review your skills and knowledge in relation to recognising and applying intellectual property requirements.

1. How can you ensure you comply with legislation, regulations and the organisation's policy relating to intellectual property?

2. How can you ensure digital processes and applications comply with intellectual property requirements?

3. How can you monitor adherence to organisational policies and legal requirements?