ICTICT522

Evaluate vendor products and equipment

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Topic 1: Project parameters

PROJECT REQUIREMENTS

When it comes to starting an IT project, at the initial planning stage there are several project parameters that will define the way in which the project will run.

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GATHERING YOUR INFORMATION

Information may be stored in a variety of locations and may not be centralised, so you may have to spend some time identifying what's available to you, undertake some research and extract information from various documents and other sources.

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CONFLICTING OR OVERLAPPING BUSINESS REQUIREMENTS

- There may also be conflicting or overlapping business requirements.

- For example, the goals of the organisation or the client who is commissioning the project may not align with the functional requirements of the users who are crucial stakeholders.

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ACTIVITY: READ

The following article discusses identify conflicting or overlapping business requirements:

https://flylib.com/books/en/4.445.1.232/1/

Take any notes to summarise what you have read and keep for future reference.

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BUDGETS AND THE AVAILABILITY OF RESOURCES

Looking at budgets and the availability of resources could include:

- reviewing the overall ICT budget

- considering the amount of equipment that can be purchased

- the training and support required (initial and ongoing)

- conducting financial ratios such as Return on Investment

- completing a cost/benefit analysis.

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ACTIVITY: READ

12 factors to help you evaluate potential technical solutions:

https://www.forbes.com/sites/forbestechcouncil/2017/02/09/12-factors-to-help-you-evaluate-potential-technical-solutions/#734df9714f66

Take any notes to summarise what you have read and keep for future reference.

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BUDGETS AND THE AVAILABILITY OF RESOURCES

Validating the business requirements can be in the form of a client requirements report which is then approved by the client.

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EVALUATING VENDORS AND THEIR PRODUCTS

Three of the most important factors to consider when evaluating vendors, their products and equipment for your project will be the price, quality and the level of service after sale.

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ETHICS, STANDARDS, COPYRIGHT AND INTELLECTUAL PROPERTY

Another aspect to consider is the relevance of ethics, standards, copyright and intellectual property when evaluating and selecting products.

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CODES OF ETHICS

The Australian Computer Society (ACS) has a Code of Professional Conduct and Professional Practice, incorporating a code of ethics, which requires all members to act with professional responsibility and integrity.

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ACTIVITY: RESEARCH AND DISCUSS

After reading the ACS Code of Ethics, answer:

- Why are these important ethics to hold and adopt?

The trainer/assessor will facilitate a class discussion about the outcomes from the research.

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COPYRIGHT AND INTELLECTUAL PROPERTY (IP)

- Intellectual property refers to property that results from original creative thought, as patents, copyright material and trademarks.

- The copyright law in Australia is defined in the Copyright Act 1968.

- It applies to the national law.

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ACTIVITY: READ

Intellectual Property Australia:

https://www.ipaustralia.gov.au

A short guide to copyright:

https://www.communications.gov.au/file/22396/download?token=hkljq8q1

Australian copyright council:

https://www.copyright.org.au/acc_prod/ACC/Home/ACC/Home.aspx

Take any notes to summarise what you have read and keep for future reference.

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ACTIVITY: REVIEW YOUR KNOWLEDGE

Visit the following website and look through before answering the questions that follow:

https://www.ipaustralia.gov.au/understanding-ip

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BUSINESS DOMAIN

- Consideration of the business domain is important to gain a high-level understanding of how a business works.

- The client's business domain should be taken into account in the evaluation and selection of products because there may be specific products that are more suitable for the business domain.

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Topic 2: Vendor products and equipment

ACTIVITY: BRAINSTORM

Brainstorm vendors in the IT industry.

Who are the major players? Who are the up and coming vendors? What makes them stand out from other vendors?

The trainer/assessor will facilitate a class discussion about the outcomes from the research.

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SUPPLIERS AND VENDORS

There are a number of key players in the ICT industry influencing the direction and use and procurement of hardware and software.

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SOURCING INFORMATION

The requirement's report outlines what is needed. This could be anything from:

- installation of a new network infrastructure

- purchasing a new roll-out of laptops for staff

- upgrading the current Operating System

- purchasing new keyboards

- transferring back up to a cloud service provider.

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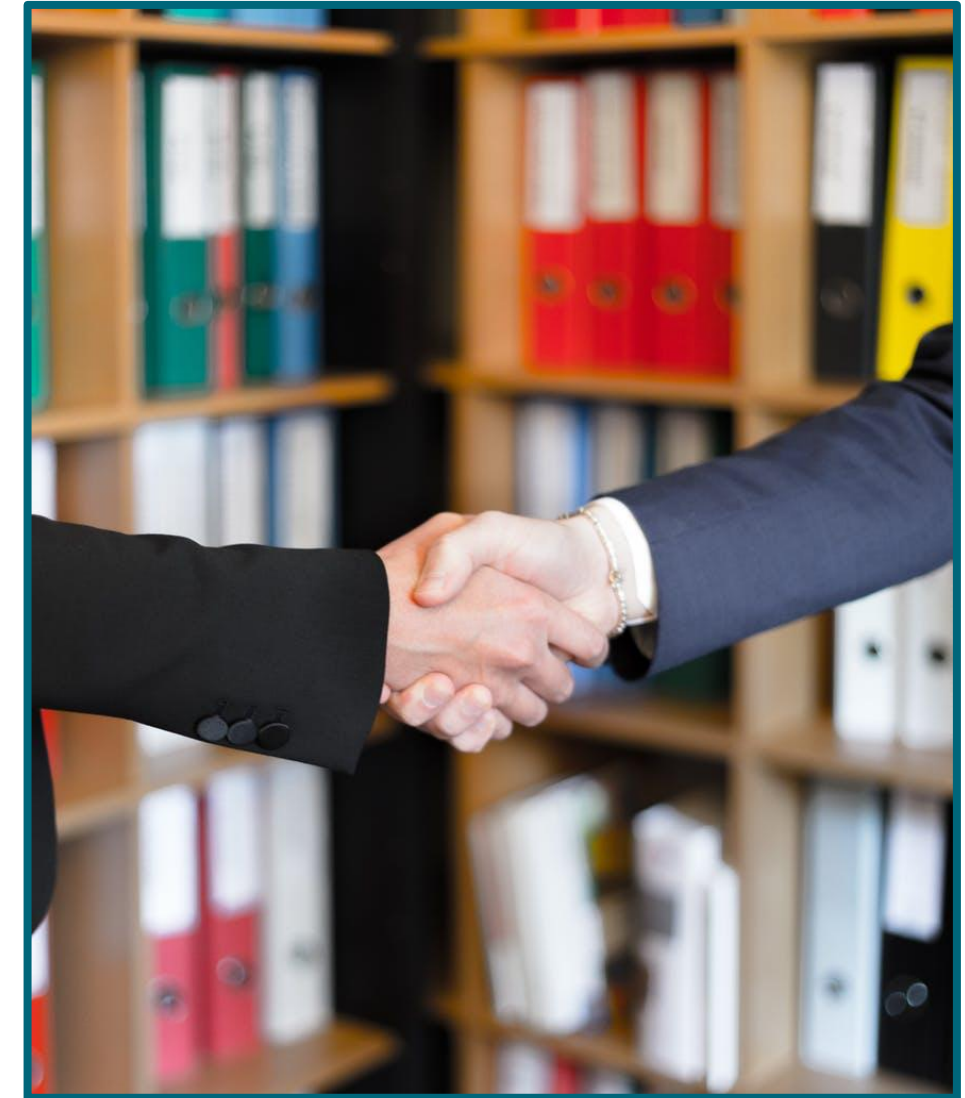
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CONTACTING VENDORS

- There are a number of vendors for all types of hardware.

- Obtaining quotes from different vendors or requests for tender will provide an overview of what is available.

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ASSESSING INFORMATION

An organisation may have a number of policies that need to be followed when purchasing equipment.

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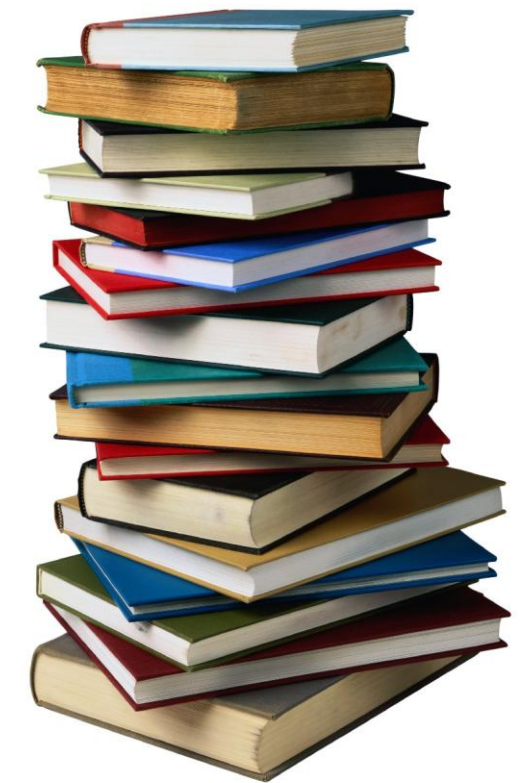
ACTIVITY: DISCUSS

How would references and referrals be of benefit when selecting a vendor for purchasing computer hardware components? Would it be safe to rely on social media when selecting a vendor, based on reviews received?

The trainer/assessor will facilitate a class discussion about the outcomes from the research.

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INDUSTRY STANDARDS

Different industries have different standards but with the same benefit of ensuring that products and services are safe, reliable and fit for purpose.

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ACTIVITY: RESEARCH AND DISCUSS

Look up the standards and provide a brief summary of each.

Do these standards apply to open source or proprietary designs?

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HARDWARE

Hardware requirements for an organisation can be the internal components in a computer, the peripherals, networking hardware, cables, etc.

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ORGANISATIONAL ICT INFRASTRUCTURE

The ICT infrastructure of an organisation will vary, however, the hardware, whether or not from the same vendor would be similar in its network set up.

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SOFTWARE

- Software can range from word processing packages such as MS office to LAN software monitoring tools.

- Network operating systems such as Windows server family, Linux, Unix use software to manage servers.

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USING SOFTWARE AS A SERVICE (SAAS)

- SaaS is a method of software delivery accessed online and an alternative to the traditional software installed on a business premises.

- It has become a common method of delivering many business applications.

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ACTIVITY: RESEARCH

Consider the following scenario and then address the tasks that follow.

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Topic 3: Testing

REVIEWING AND TESTING

Testing and reviewing vendor products and services is essential to ensure that integration and performance issues can be identified before a purchase is made.

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ACTIVITY: RESEARCH AND DISCUSS

Consider the computer that you are currently working on. Using the Control panel or System preferences pane, look up the information.

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TEST REGIMES

Testing is a major aspect of ensuring that products and services are working.

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TEST ENVIRONMENT

- A test environment is the setup of hardware and software for testing to be executed.

- Calibration is a comparison between a known standard measurement and the measurement from the instrument being tested. It is the act of comparing a device under test of an unknown value with a reference standard of a known value.

Topic 3: Testing

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UNDERTAKING TESTING

To undertake thorough testing, you would need to:

- Check if all equipment is available for testing

- Check any application software for testing is available

- Assign roles for people to undertake tests

- Ensure tests will not affect others

- Plan timings of test and any impacts on the organisation

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UNDERTAKING TESTING

To undertake thorough testing, you would need to:

- Gather any bug reporting tools

- Create the test data (this is usually in the form of a testing plan)

- Perform the tests

- Document the results

- Report results

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REVISED TESTING

- If the initial tests are inconclusive or are not the expected outcome, configuration may be required before undertaking the tests again.

- It may also mean that the testing has shown that the product or equipment does not meet the business requirements.

Topic 3: Testing

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ACTIVITY: GROUP WORK

Divide into small groups. Ensure you divide the work equally.

For this activity you are to undertake some testing on the computers that you are using at your RTO. You are to test three different computers, document the results and then report on the outcome.

Topic 3: Testing

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Topic 4: Evaluating

RATING VENDOR PRODUCTS

- To evaluate vendor products, services and equipment the first step would be to rate the vendor products to ensure that it fits with the client's needs.

- Rating can provide an overview and comparison but also provide the client with enough information to make an informed decision.

Topic 4: Evaluating

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RATING

- In order to determine how well criteria has been met, rating scales are given to each.

- The rating scales are used to compare different products.

Topic 4: Evaluating

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ACTIVITY: RESEARCH AND DISCUSS

Consider all the selection criteria that you would need for purchasing a new computer.

- List down what you would consider important criteria.

- Rank the criteria.

- Provide a weighting.

- In a table, research three computers and use a table to show the evaluation for each product.

- Show the totals and provide a summary of the criteria, ranking, scaling and weighting that you chose and why.

Topic 4: Evaluating

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COMPARING BUSINESS REQUIREMENTS

- There are issues and variables that should be considered when evaluating vendor products and equipment.

- This can be divided into three areas: Supplier, Organisation and Software/hardware.

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COST-BENEFIT ANALYSIS

- Calculating the cost-benefit for hardware and software expenditures means demonstrating that the course you want to take is cost-effective.

- Certain costs need to be break down such as indirect costs and direct costs.

Topic 4: Evaluating

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ACTIVITY: READ

The following website provides some simple steps to undertaking a cost-benefit analysis:

https://www.mindtools.com/pages/article/newTED_08.htm

Take any notes to summarise what you have read and keep for future reference.

Topic 4: Evaluating

ACTIVITY: BRAINSTORM AND DISCUSS

Consider an organisation that wanted to move their current infrastructure to a virtualised environment. List all the considerations for undertaking a cost-benefit analysis.

The trainer/assessor will facilitate a brainstorming session and class discussion.

Topic 4: Evaluating

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PROJECT RISKS

When you research and review options then you will no doubt be undertaking this as a project.

With a project there will be risks.

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PREPARING REPORTS

An evaluation report provides a written document that can be used to submit to the client for approval. When preparing a report, there are a number of factors that you need to consider:

- the professional presentation

- the structure must facilitate ease of reading

- the audience

Topic 4: Evaluating

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ACTIVITY: RESEARCH AND DISCUSS

Look at the report templates on Microsoft Word, or the software that you are using at your college. Create a template that you could use to write a report, based on the structure shown above.

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Topic 4: Evaluating

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ACTIVITY: RESEARCH AND DISCUSS

Write a report that evaluates at least two different Augmented Reality glasses for an organisation that would like to use them for training.

Topic 4: Evaluating

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