



## Sample assessment task

<b>Year level</b>	8
<b>Learning area</b>	Humanities and Social Sciences
<b>Subject</b>	Economics and Business
<b>Title of task</b>	Technology in the workplace web quest

## Task details

<b>Description of task</b>	Students use available information technology resources to complete a series of in-class activities regarding technology and its influence on the way people work now and will work in the future
<b>Type of assessment</b>	Formative and summative
<b>Purpose of assessment</b>	<ul style="list-style-type: none"> <li>To assess skill development and plan further teaching if required</li> <li>To assess students' knowledge at the end of the learning cycle</li> </ul>
<b>Assessment strategy</b>	Written work and visual representation
<b>Evidence to be collected</b>	<ul style="list-style-type: none"> <li>Task workbook</li> <li>Visual representation</li> </ul> <p>The teacher may stipulate whether evidence is to be submitted as hard copy or electronically</p>
<b>Suggested time</b>	Two to three teaching periods (approximately two to three hours)

## Content description

<b>Content from the Western Australian Curriculum</b>	<p><b>Knowledge and understanding</b></p> <p>Types of businesses (e.g. sole trader, partnership, corporation, cooperative, franchise) and the ways that businesses respond to opportunities in Australia</p> <p>Influences on the ways people work (e.g. technological change, outsourced labour in the global economy, rapid communication changes and factors that might affect work in the future)</p> <p><b>Humanities and Social Sciences skills</b></p> <p>Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and fieldwork</p> <p>Translate information and/or data from one format to another (e.g. from a table to a graph)</p> <p>Develop texts, particularly descriptions and explanations, using appropriate subject-specific terminology and concepts that use evidence to support findings, conclusions and/or arguments, from a range of sources</p>
<b>Key concepts</b>	Allocation and markets, Economic performance and living standards

## Task preparation

<b>Prior learning</b>	Students have a basic understanding of factors influencing the way people work, e.g. technological change, outsourced labour in the global economy, rapid communication changes, and an awareness of the growing impact of technology.
<b>Assessment differentiation</b>	Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged.  Where appropriate, teachers may either scaffold or extend the scope of the assessment tasks.

## Assessment task

<b>Assessment conditions</b>	Task should be completed in class, individually and with access to information technology resources.
<b>Resources</b>	<p>All students need internet access to complete the web quest. They can use personal ICT devices or a computer lab.</p> <p>The following resources may assist in completing each activity.</p> <p><b>Activity 1</b></p> <ul style="list-style-type: none"> <li>• Bandcamp. <i>Discover amazing new music and directly support the artists who make it.</i> <a href="https://bandcamp.com/">https://bandcamp.com/</a></li> <li>• Spotify. <i>How is Spotify contributing to the music business?</i> <a href="http://www.spotifyartists.com/spotify-explained/">http://www.spotifyartists.com/spotify-explained/</a></li> <li>• Variety. <i>Album Sales Continue Decline, Music Streaming Rises in 2014.</i> <a href="http://variety.com/2015/music/news/album-sales-continue-decline-music-streaming-rises-in-2014-1201394229/">http://variety.com/2015/music/news/album-sales-continue-decline-music-streaming-rises-in-2014-1201394229/</a></li> </ul> <p><b>Activity 2</b></p> <ul style="list-style-type: none"> <li>• Planet money. <i>Will Your Job Be Done By A Machine?</i> <a href="http://www.npr.org/sections/money/2015/05/21/408234543/will-your-job-be-done-by-a-machine">http://www.npr.org/sections/money/2015/05/21/408234543/will-your-job-be-done-by-a-machine</a></li> <li>• Time. <i>Robot Telemarketer Employer: Samantha West Is No Robot.</i> <a href="http://newsfeed.time.com/2013/12/17/robot-telemarketer-samantha-west/">http://newsfeed.time.com/2013/12/17/robot-telemarketer-samantha-west/</a></li> </ul> <p><b>Activity 3</b></p> <ul style="list-style-type: none"> <li>• Futurist Speaker Thomas Frey. <i>55 Jobs of the Future.</i> <a href="http://www.futuristspeaker.com/2011/11/55-jobs-of-the-future/">http://www.futuristspeaker.com/2011/11/55-jobs-of-the-future/</a></li> <li>• World future society. <i>162 Future Jobs: Preparing for jobs that Don't Yet Exist.</i> <a href="http://www.futuristspeaker.com/business-trends/162-future-jobs-preparing-for-jobs-that-dont-yet-exist/">http://www.futuristspeaker.com/business-trends/162-future-jobs-preparing-for-jobs-that-dont-yet-exist/</a></li> <li>• Careers and Employability Service. <i>Future Jobs.</i> <a href="http://www.kent.ac.uk/careers/Choosing/future-jobs.htm">http://www.kent.ac.uk/careers/Choosing/future-jobs.htm</a></li> </ul>

## Instructions for teacher

### Technology in the workplace web quest

Prior to commencing the task, revise the key concepts and demonstrate, at each part of the learning, the way of approaching the activities or way of thinking through the key concepts.

Possible questions to revise key concepts and introduce the assessment would be:

- How has technology changed the way we learn?
- Has technology changed the way your teachers have taught you?
- Do you know any ways people in your family have changed the way they do their jobs?
- Does anyone have family members/friends in jobs which are new and may not have existed 20 years ago?
- What are some ways businesses have benefited from introducing greater levels of technology?

As preparation for the activity, conduct a brainstorm (in groups or as a class) on the ways technology has affected business today, for example:

- types of technologies which have improved business efficiency
- advantages of the inclusion of technology in business
- potential disadvantages of technological progress
- predictions for upcoming technological advancements.

Teachers should introduce a case study, e.g. the automation of drinks production at fast food restaurants, online pizza ordering, self-serve checkouts at the supermarket, ebooks delivered digitally via Kindle devices or automated hotels in Japan showing the way technology has affected traditional business models. Experienced teachers may wish to discuss how technology has changed the way they do their own job.

The teacher may consider an introduction to the changes in the music industry (via class discussion or mind map). This will be of assistance to students needing additional scaffolding and will help focus research in activity 1.

In preparing students for the task, explicit instruction may be needed in the following skill areas:

- online research processes (e.g. how to use a search engine effectively)
- building an effective visual presentation (e.g. making an effective wall chart, creating an infographic using [www.piktochart.com](http://www.piktochart.com)).

When introducing the assessment teachers should:

- provide students with a copy of the task sheet, including the marking key
- provide examples of effective visual presentations, for example an assignment from a previous student or a visual presentation on a different content area completed by the teacher
- explicitly determine the level of detail, expected timeframe and appropriate methods of creating a visual presentation for activity 1 (this may vary based on student ability and time dedicated to the assessment)
- provide the detailed answer key (minus the sections titled 'Answer could include, but is not limited to' which are specifically for teacher reference) and go through the marking key with students.

## Instructions to students

### Technology in the workplace web quest

#### Activity 1 – Visual representation

Technology has had a huge impact on the music industry over the last 20–30 years. During this time, there have been major changes in areas, such as:

- the way people purchase music
- the way people listen to music
- how people discover new bands
- the way bands and performers make their music known
- how performers make money.

Construct a visual representation (e.g. infographic, slideshow, wall-chart) showing the ways technology has changed the music industry over the last 20–30 years.

In your visual representation include:

- data (e.g. sales statistics, numbers of subscribers to music subscriptions)
- how products have changed (do people buy music in different ways now?)
- the changes in how bands make money (is it still mostly from CD sales?)
- changes in the way people become aware of new music
- examples of artists who have used technology in interesting ways to increase their exposure and popularity.

#### Activity 2 – Impact of technology on jobs

Many researchers predict that, within 20–30 years, machines will take over a number of jobs currently done by humans.

The following website ‘predicts’ the probability of a person’s current job being done by machines within 20 years.

- Planet money. *Will Your Job Be Done By A Machine?*  
<http://www.npr.org/sections/money/2015/05/21/408234543/will-your-job-be-done-by-a-machine>

Refer to this website when completing the following.

1. Find two jobs which have a greater than 90% chance of being replaced by technology in the next 20 years.
2. For each job, explain why it is likely that technology could replace the need for human workers in this industry.
3. Find two jobs which have a less than 10% chance of being replaced by technology in the next 20 years.
4. For each job, explain why it would be unlikely that the human workers could be replaced by technology in this industry.
5. You may need to conduct some basic research into each job/industry to assist you in answering these questions. It is appropriate to use data or quotes from online sources to enhance your answer.

Record your answers on the table provided.

### Activity 3 – Jobs of the future

Use what you have already discovered about the role of technology in the workplace, in addition to the following websites.

- Futurist Speaker Thomas Frey. *55 Jobs of the Future*. <http://www.futuristspeaker.com/2011/11/55-jobs-of-the-future/>
  - World future society. *162 Future Jobs: Preparing for jobs that Don't Yet Exist*. <http://www.futuristspeaker.com/business-trends/162-future-jobs-preparing-for-jobs-that-dont-yet-exist/>
  - Careers and Employability Service. *Future Jobs*. <http://www.kent.ac.uk/careers/Choosing/future-jobs.htm>
1. What is a job which exists today that did not exist 20 years ago? Explain how changes in technology have created the need for this job in society today.
  2. Create a fictional job title and basic job description for a job that might exist in the next 30 years. The job should not exist today.
  3. Justify the reasons you believe this job will exist in the near future.

Record your answers on the page provided.

## Activity 2

1. Find two jobs which have a greater than 90% chance of being replaced by technology in the next 20 years.
2. For each job, explain why it is likely that technology could replace the need for human workers in this industry.

Job title	Why is it likely that technology could replace the need for human workers in this industry within 20 years?

3. Find two jobs which have a less than 10% chance of being replaced by technology in the next 20 years.
4. For each job, explain why it would be unlikely that the human workers could be replaced by technology in this industry.

Job title	Why is it unlikely that technology could replace the need for human workers in this industry within 20 years?

**Activity 3**

- 1. What is a job which exists today that did not exist 20 years ago? Explain how changes in technology have created the need for this job in society today.

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- 2. Create a fictional job title and basic job description for a job that might exist in the next 30 years. The job should not exist today.

Fictional job title: \_\_\_\_\_

Job description:

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- 3. Justify the reasons for believing this job will exist in the near future.

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## Sample marking key

Description	Marks
<b>Visual representation</b>	
<p>Provides comprehensive information on the way technology has influenced the music industry over the last 20 years; compares and contrasts in detail, major changes in at least two areas</p> <p>Presents information and data in a detailed and well-organised manner (e.g. uses relevant images, pictures, graphs, and tables; uses colour throughout to organise and categorise ideas and concepts; uses an organised way to connect and link concepts, information and/or data; uses key words that identify main ideas in a succinct way)</p>	7–8
<p>Provides sufficient information on the way technology has influenced the music industry over the last 20 years; compares and contrasts one major change or outlines the changes in a number of areas</p> <p>Information and data are mostly presented in a detailed and organised manner (e.g. uses relevant images, pictures, graphs, and tables; uses colour throughout to organise and categorise ideas and concepts; uses an organised way to connect and link concepts, information and/or data; uses key words that identify main ideas in a succinct way)</p>	5–6
<p>Provides simple information on the way technology has influenced the music industry over the last 20 years</p> <p>Presents brief information and/or data with limited organisation of ideas and concepts</p>	3–4
<p>Provides very broad generalised statements about the way technology has influenced the music industry over the last 20 years</p> <p>Selects mostly irrelevant or incorrect information and/or data or regularly uses personal opinion in place of data</p> <p>Lists data without using appropriate frameworks</p>	1–2
<b>Subtotal</b>	<b>8</b>
<p><b>Answers may include, but are not limited to:</b></p> <ul style="list-style-type: none"> <li>• music sales have moved away from physical mediums, such as CDs, to digital downloads (e.g. via iTunes); additionally, there has been an increase in the number of people subscribing to music streaming services, such as Spotify</li> <li>• the introduction of MP3 players, smart phones and similar technology enables consumers to carry thousands of songs with them rather than having to keep a small number of albums close at hand</li> <li>• instant access to the internet has reduced the need for people to discover new music via radio</li> <li>• social media is an increasingly important way for artists to gain popularity (e.g. Lily Allen, Arctic Monkeys)</li> <li>• there is an increasing threat of illegal downloads and piracy to bands trying to make a living from making music</li> <li>• websites, such as bandcamp.com, allow easier access to new music and are reducing the need for bands to rely on major record labels</li> </ul> <p><b>Note:</b> To be considered outstanding, visual representations need to use real examples and data to support their statements.</p>	

Description	Marks
<b>Impact of technology on particular jobs</b>	
Demonstrates, with reference to chosen examples, the characteristics that make certain industries more appropriate for capital for labour substitution Makes reference to current trends in technological progress and considers current limitations of technology in drawing conclusions about the appropriateness of using machines in place of human labour in particular industries	3–4
Partially identifies the characteristics that make certain industries more appropriate for capital for labour substitution Makes limited reference to trends or current limitations of technology when drawing conclusions; bases answers on personal opinion rather than available data	1–2
<b>Subtotal</b>	<b>8</b>
<p><b>Answers may include, but are not limited to:</b></p> <ul style="list-style-type: none"> <li>• jobs which require routine or repetitive tasks, such as retail checkout operator, production line worker and telemarketer sales, are at high risk of technology for labour substitution</li> <li>• other characteristics of jobs with ‘high risk’ of becoming computerised include jobs with numerous mathematical calculations, jobs which do not require clever solutions, jobs with clear patterns, jobs requiring people to work in small spaces or harsh conditions and jobs which do not require an understanding of people’s emotions in order to be completed effectively</li> <li>• jobs which require creativity, individual solutions for each customer, understanding of human emotions or new and clever solutions to problems are at lower risk of being computerised</li> </ul> <p><b>Note:</b> To be considered outstanding, answers should include quotes or data from relevant sources.</p>	

Description	Marks
Jobs of the future	
Outlines, with reference to detailed examples, the changes in technology that have allowed the creation of a new job in the marketplace Develops a feasible role description for a job which could exist in the future, justifying their prediction by making reference to current societal and technological trends	3–4
Partially or insufficiently outlines the changes in technology that have allowed the creation of a new job in the marketplace Develops a role description for a job which could exist in the future based on generalisations, with limited reference to current societal and technological trends.	1–2
<b>Subtotal</b>	<b>4</b>
<b>Answers may include, but are not limited to:</b>	
Question 1	
<p>A detailed description of a job, such as:</p> <ul style="list-style-type: none"> <li>• social media strategist</li> <li>• professional blogger</li> <li>• app designer</li> <li>• cloud computing technician</li> </ul> <p>Answer should outline the specific technological developments (e.g. the introduction of smart phones) that have made this job possible today. Students should recognise that the rise of these jobs is determined by demand for the service. Each job exists because technology has created demand in a new area.</p>	
Questions 2 and 3	
<p>Students must make reference to current trends, such as:</p> <ul style="list-style-type: none"> <li>• globalisation (outsourcing of labour)</li> <li>• the changing nature of working environments (e.g. more people working from home)</li> <li>• current research into new technologies (i.e. hybrid cars, home batteries) to suggest a viable future job opportunity.</li> </ul> <p><b>Note:</b> To be considered outstanding, answers should include quotes or data from relevant sources.</p>	
<b>Total</b>	<b>20</b>