Centre for English Teaching

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DEC 10
Week 7

THE UNIVERSITY OF SYDNEY

DEC 10 Week 7

Contents

Reading

Wk 7 Reading 1: The new workers

Lesson Objectives
• Identify features of a definition • Practise paraphrasing • Track text referents • Practise a range of DEC 10 reading test question types

Source: Adapted from "The New Workers". (2001, Sep 15). *The Economist, 360(8239), 8.*

Part 1: Before you read

What sort of work is being performed in the pictures? Are these photos likely to relate to 2001 or 2018 or both? Give reasons for your answer.

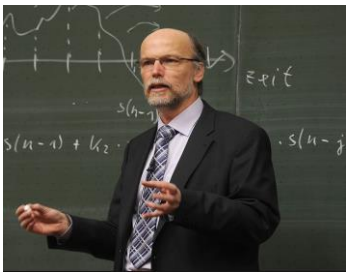
A

B

C

D

E



F

Part 2: Prepare to read

Prediction and Skimming

1. Back in 1966, Peter Drucker predicted that major changes would be brought about in society by information. He offered the following definition was given of the term "Knowledge worker":

> At its most simple definition, a knowledge worker is someone whose job requires them to think for a living. Knowledge work is all about problem-solving and requires both convergent and divergent thinking to answer all the simple and complex questions that arise in daily work. Knowledge workers would be expected to innovate often, routinely coming up with new and better ways of doing things. In their increasingly specialised roles, these employees would be expected to know more about their daily work than their managers – meaning autonomy is a necessity, not simply a "nice to have" (Drucker, 1966).

Unpack this definition and write a short paraphrase.

What is the key language used in this extract from Drucker to provide a definition?

2. Scan through the **headings** of the reading text "The Knowledge Workers" from 2001.

a. In which sections are you most likely to find a definition of knowledge work(ers)?

b. Read the first sentence of each paragraph in sections A and B and identify which paragraphs are most likely to contain a definition of knowledge work(ers)

c. Read sections A and B and focus on what definition of knowledge work(ers) is given in the paragraphs you have identified.

There are different aspects to this definition. Identify relevant points and then summarise these into a short definition.

3. What similarities and differences between the 2018 Drucker definition and the 2001 definition from *The Economist* can you identify?

Part 3: Reading and understanding the text

Now read the text and answer the questions.

Reading Questions

Part A
Questions 1 – 4 Multiple Choice

Choose one answer

1. Over a 100-year period, until 2001, the proportion of factory workers in the US:

a. fluctuated wildly over the period.

b. ended up at about the same level as in 1901.

c. remained at between 35% and 50% over that time.

d. are only a small proportion of all manual workers.

2. In the sentence "However, too much should not be made of **this**" (para 2), **this** refers to

a. employment opportunities in manufacturing.

b. outsourcing of jobs.

c. people's jobs being redefined.

d. people continuing to do the same jobs.

3. From the table "Brain, not brawn", how many occupations show a continuous decrease over the 20-year period?

a. 6

b. 5

c. 4

d. 3

4. In paragraph 3, why did the term "service worker" turn out to be rather misleading?

a. A new employment category emerged and replaced it.

b. Service workers were not actually service workers.

c. The term did not fulfil the hopes of its name.

d. 'Non-manual' does not mean exactly the same as 'service'.

Parts B & C

Questions 5 – 14 Table

Complete the table using ***no more than four words from the text*** *for each answer.*

The Knowledge Economy

Features of the Knowledge Industries

- terms adopted by

5. _____

and

6. _____

Ways the Knowledge Economy will be different in the future:

Knowledge workers will be the New Capitalists

- They will own **7.** _____

_____

- They have stakes in **8.** _____

_____

(choose one)

Knowledge workers have specialised knowledge

- They apply this to

9. _____

- They perceive themselves to be

10. _____

Women in the Workforce:

- Women's work historically was

11. _____ to men's

- Knowledge work today is **12.** _____

Examples of early knowledge work:

13. _____

14. _____

Part D

Questions 15 – 20 Summary Gap-fill

*Complete the summary **using no more than three words from the text** for each gap.*

Knowledge Technologists

Skilled workers such as teachers or lawyers have existed for many years but a new grouping is more recent. Workers in this group – knowledge technologists – need, like all knowledge workers, to have had **15.** _____ in order to gain their knowledge. The fastest growing group in this category in the United States and the UK have been those termed **16.** _____ who, in coming decades will become the **17.** _____ in the workforce and will be in an equivalent position to **18.** _____ in the past. It is important to note that this group identifies itself as **19.** _____ despite spending a considerable amount of time doing **20.** _____ .

Parts E & F

Questions 21 – 26 True, False or Not Given

Decide if the following statements are true (T), False (F) or Not Given (NG).

21. It is expected that specialised new educational facilities will emerge to meet expected demand. _____

22. The tools in a Barcelona museum indicate that traditional skills have changed beyond recognition. _____

23. Information in the table 'Everybody's doing it' indicates that ¾ of represented countries had female enrolment in tertiary education of more than 50% in 1996. _____

24. It is anticipated that the cost of delivering new forms of education will be greater than has been budgeted for. _____

25. According to the writer, loyalty to one's profession outweighs loyalty to one's organisation. _____

26. Money continues to be the main motivator of these professionals. _____

Sections G & H

Questions 27 – 33 Short Answer

Answer the following questions using ***no more than nine words for each answer****. You may use your own words to summarise information.*

27. What does the writer mean when he says that knowledge cannot be bequeathed or inherited?

_____

28. How does knowledge enable social mobility?

_____

29. Traditionally, what was the usual direction of mobility?

_____

30. How was upward mobility different in the US compared with other European countries?

_____

31. What feature of upward mobility was not true of earlier societies?

_____

32. What negative development has occurred in schools in a number of countries over 30 – 40 years?

_____

33. What solution is suggested by the writer to counteract issues related to "plateauing"?

_____

Feedback and Discussion

1. Check your answers together.
2. What have you learnt from this reading that might relate to the situation today?
3. How do you think the situation has changed since 2001?

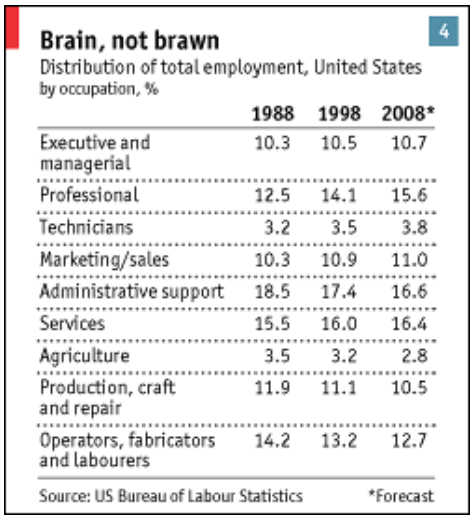
TEXT: The New Workers

Source: Adapted from "The New Workers". (2001, Sep 15). *The Economist, 360(8239), 8.*

A. The Growth in Knowledge Workers

1. A century ago, the overwhelming majority of people in developed countries worked with their hands: on farms, in domestic service, in small craft shops and (at that time still a small minority) in factories. Fifty years later, the proportion of manual workers in the American labour force had dropped to around half, and factory workers had become the largest single section of the workforce, making up 35% of the total. Now, another 50 years later, fewer than a quarter of American workers make their living from manual jobs. Factory workers still account for the majority of the manual workers, but their share of the total workforce is down to around 15%—more or less back to what it had been 100 years earlier.

2. Of all the big developed countries, America now has the smallest proportion of factory workers in its labour force. Britain is not far behind. In Japan and Germany, their share is still around a quarter, but it is shrinking steadily. To some extent this is a matter of definition. Data-processing employees of a manufacturing firm, such as the Ford Motor Company, are counted as employed in manufacturing, but when Ford outsources its data processing, the same people doing exactly the same work are instantly redefined as service workers. However, too much should not be made of **this**. Many studies in manufacturing businesses have shown that the decline in the number of people who actually work in the plant is approximately the same as the shrinkage reported in the national figures.



Brain, not brawn 4

Distribution of total employment, United States by occupation, %

	1988	1998	2008*
Executive and managerial	10.3	10.5	10.7
Professional	12.5	14.1	15.6
Technicians	3.2	3.5	3.8
Marketing/sales	10.3	10.9	11.0
Administrative support	18.5	17.4	16.6
Services	15.5	16.0	16.4
Agriculture	3.5	3.2	2.8
Production, craft and repair	11.9	11.1	10.5
Operators, fabricators and labourers	14.2	13.2	12.7

Source: US Bureau of Labour Statistics *Forecast

Figure 1

3. Before the First World War, no term existed for people who made their living other than by manual work. The term "service worker" was used for the first time around 1920, but it has turned out to be rather misleading. These days, fewer than half of all non-manual workers are actually service workers. The only fast-growing group in the workforce, in America and in every other developed country, is "knowledge workers"—people whose jobs require formal and advanced schooling. They now account for a full third of the American workforce, outnumbering factory workers by two to one. In another 20 years or so, they are likely to make up close to two-fifths of the workforce of all rich countries.

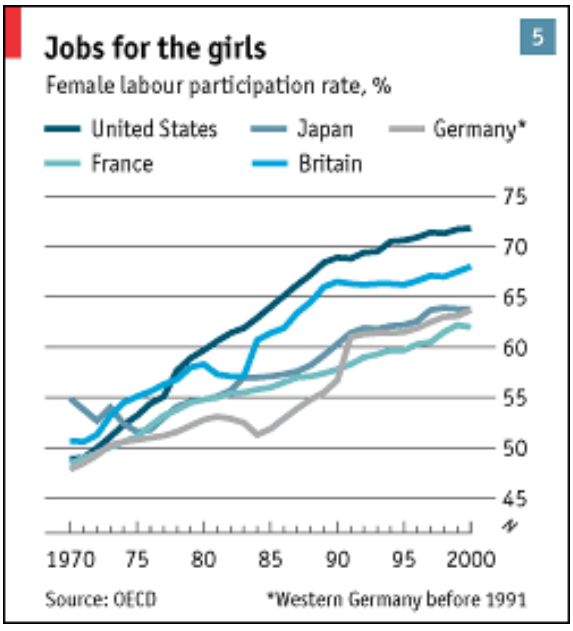
B. What is a Knowledge Economy?

4. The terms "knowledge industries", "knowledge work" and "knowledge worker" are only 40 years old. They were adopted around 1960, simultaneously but independently; the first by a Princeton economist, Fritz Machlup, the second and third by this writer. Now they are widely used, but as yet hardly anyone understands their implications for human values and human behaviour, for managing people and making them productive, for economics and for politics. What is already clear, however, is that the emerging knowledge society and knowledge economy will be radically different from the society and economy of the late 20th century, in the following ways.

5. First, the knowledge workers, collectively, are the new capitalists. Knowledge has become the key resource, and the only scarce one. This means that knowledge workers collectively own the means of production. However, as a group, they are also capitalists in the old sense: through their stakes in pension funds and mutual funds, they have become majority shareholders and owners of many large businesses in the knowledge society.

6. Effective knowledge is specialised. That means knowledge workers need access to an organisation—a collective that brings together an array of knowledge workers and applies their specialisms to a common end-product. The most gifted mathematics teacher in a secondary school is effective only as a member of the faculty. The most brilliant consultant on product development is effective only if there is an organised and competent business to convert her advice into action. The greatest software designer needs a hardware producer. But in turn the high school needs the mathematics teacher, the business needs the expert on product development, and the PC manufacturer needs the software programmer. Knowledge workers therefore see themselves as equal to those who retain their services, as "professionals" rather than as "employees". The knowledge society is a society of seniors and juniors rather than of bosses and subordinates.

C. A New Role for Women Workers



7. All this has important implications for the role of women in the labour force. Historically women's participation in the world of work has always equalled men's. The lady of leisure sitting in her parlour was the rarest of exceptions even in a wealthy 19th-century society. A farm, a craftsman's business or a small shop had to be run by a couple to be viable. As late as the beginning of the 20th century, a doctor could not start a practice until he had got married; he needed a wife to make appointments, open the door, take patients' histories and send out the bills.

Figure 2

8. But although women have always worked, for most of history the jobs they have done have been different from men's. There was men's work and there was women's work. Countless women in the Bible go to the well to fetch water, but not one man. There never was a male "spinster". Knowledge work, on the other hand, is "unisex", not because of feminist pressure but because it can be done equally well by both sexes. That said, the first modern knowledge jobs were designed for only one or the other sex. Teaching as a profession was invented in 1794, the year the Ecole Normale was founded in Paris, and was seen strictly as a man's job. Sixty years later, during the Crimean war of 1853-56, Florence Nightingale founded the second new knowledge profession, nursing. This was considered as exclusively women's work. But by 1850, teaching everywhere had become unisex, and in 2000 two-fifths of America's students at nursing school were men.

9. There were no women doctors in Europe until the 1890s. But one of the earliest European women to get a medical doctorate, the great Italian educator Maria Montessori, reportedly said: "I am not a woman doctor; I am a doctor who happens to be a woman." The same logic applies to all knowledge work. Knowledge workers, whatever their sex, are professionals, applying the same knowledge, doing the same work, governed by the same standards and judged by the same results.

D. Knowledge Technologists

10. High-knowledge workers such as doctors, lawyers, scientists, clerics and teachers have been in existence for a long time, although their number has increased exponentially in the past 100 years. The largest group of knowledge workers, however, barely existed until the start of the 20th century, and started to grow only after the Second World War. They are knowledge technologists—people who do much of their work with their hands (and to that extent are the successors to skilled workers), but whose pay is determined by the knowledge between their ears, acquired in formal education rather than through apprenticeship. They include X-ray technicians, physiotherapists, ultrasound specialists, psychiatric case workers, dental technicians and scores of others. In the past 30 years, medical technologists have been the fastest-growing segment of the labour force in America, and probably in Britain as well.

11. In the next 20 or 30 years, the number of knowledge technologists in computers, manufacturing and education is likely to grow even faster. Office technologists such as paralegals are also proliferating. And it is no accident that yesterday's "secretary" is rapidly turning into an "assistant", having become the manager of the boss's office and of his work. Within two or three decades, knowledge technologists will become the dominant group in the workforce in all developed countries, occupying the same position that unionised factory workers held at the peak of their power in the 1950s and 60s.

12. The most important thing about these knowledge workers is that they do not identify themselves as "workers" but as "professionals". Many of them spend a good deal of their time doing largely unskilled work, for example, straightening out patients' beds, answering the telephone or filing. However, what identifies them in their own and in the public's mind is that part of their job involves putting their formal knowledge to work. That makes them full-fledged knowledge workers.

E. The Educational Needs of the Knowledge Workers

13. Such workers have two main needs: formal education that enables them to enter knowledge work in the first place, and continuing education throughout their working lives to keep their knowledge up to date. For the old high-knowledge professionals such as doctors, clerics and lawyers,

formal education has been available for many centuries. But for knowledge technologists, only a few countries so far provide systematic and organised preparation. Over the next few decades, educational institutions to prepare knowledge technologists will grow rapidly in all developed and emerging countries, just as new institutions to meet new requirements have always appeared in the past. What is different is the need for the continuing education of already well-trained and highly knowledgeable adults. Schooling traditionally stopped when work began. In the knowledge society it never stops.

14. Knowledge is unlike traditional skills, which change very slowly. A museum near Barcelona in Spain contains a vast number of the hand tools used by the skilled craftsmen of the late Roman empire which any craftsman today would instantly recognise, because they are very similar to the tools still in use. For the purposes of skill training, therefore, it was reasonable to assume that whatever had been learned by age 17 or 18 would last for a lifetime.

Everybody's doing it 6

% of total population enrolled in tertiary education selected countries

	1970	1996	% female 1996
Brazil	0.44	1.17	*52.9**
Britain	1.08	3.25	*51.8*
China	0.01	0.49†	*33.3‡*
France	1.58	3.54	*54.9*
India	0.44	0.65†	*36.2*
Indonesia	0.20	1.16§	*34.8§*
Iran	0.26	0.91†	*38.1‡*
Israel	1.86	3.59	*51.3***
Mexico	0.49	1.76	*47.7*
South Africa	0.37	1.49*	*48.0**
South Korea	0.63	5.65	*36.9*
Turkey	0.48	2.35	*35.1*
United States	4.14	5.37†	*55.1§*

*1994 †1997 ‡1993 §1995 **1992

Sources: UNESCO; UNPD

Figure 3

15. Conversely, knowledge rapidly becomes **obsolete**, and knowledge workers regularly have to go back to school. Continuing education of already highly educated adults will therefore become a big growth area in the next society. However, most of it will be delivered in non-traditional ways, ranging from weekend seminars to online training programmes, and in any number of places, from a traditional university to the student's home. The information revolution, which is expected to have an enormous impact on education and on traditional schools and universities, will probably have an even greater effect on the continuing education of knowledge workers.

F. The Allegiance of Knowledge Workers

16. Knowledge workers of all kinds tend to identify themselves with their knowledge. They introduce themselves by saying "I am an anthropologist" or "I am a physiotherapist." They may be proud of the organisation they work for, be it a company, a university or a government agency, but they "work at the organisation"; they do not "belong to it". Most of them probably feel that they have

more in common with someone who practices the same specialism in another institution than with their colleagues at their own institution who work in a different knowledge area.

17. Although the emergence of knowledge as an important resource increasingly means specialisation, knowledge workers are highly mobile within their specialism. They think nothing of moving from one university, one company or one country to another, as long as they stay within the same field of knowledge. There is a lot of talk about trying to restore knowledge workers' loyalty to their employing organisation, but such efforts will get nowhere. Knowledge workers may have an attachment to an organisation and feel comfortable with it, but their primary allegiance is likely to be to their specialised branch of knowledge.

18. Knowledge is non-hierarchical. Either it is relevant in a given situation, or it is not. An open-heart surgeon may be much better paid than, say, a speech therapist, and enjoy a much higher social status, yet if a particular situation requires the rehabilitation of a stroke victim, then in that instance the speech therapist's knowledge is greatly superior to that of the surgeon. This is why knowledge workers of all kinds see themselves not as subordinates but as professionals and expect to be treated as such.

19. Money is as important to knowledge workers as to anybody else, but they do not accept it as the ultimate **yardstick**, nor do they consider money as a substitute for professional performance and achievement. In sharp contrast to yesterday's workers, to whom a job was first of all a living, most knowledge workers see their job as a life.

G. The Mobility of the Knowledge Worker

20. The knowledge society is the first human society where upward mobility is potentially unlimited. Knowledge differs from all other means of production in that it cannot be inherited or bequeathed. It has to be acquired anew by every individual, and everyone starts out with the same total ignorance.

21. Knowledge has to be put in a form in which it can be taught, which means it has to become public. It is always universally accessible, or quickly becomes so. As a result, the knowledge society is a highly mobile one. Anyone can acquire any knowledge at a school, through a codified learning process, rather than by serving as an apprentice to a master.

22. Until 1850, or perhaps even 1900, there was little mobility in any society. The Indian caste system, in which birth determines not only an individual's status in society but his occupation as well, was only an extreme case. In most other societies too, if the father was a peasant, the son was a peasant, and the daughters married peasants. Overall, the only mobility was downward, caused by war or disease, personal misfortune or bad habits such as drinking or gambling.

23. Even in America, the land of unlimited opportunities, there was far less upward mobility than is commonly believed. The great majority of professionals and managers in America in the first half of the 20th century were still the children of professionals and managers rather than the children of farmers, small shopkeepers or factory workers. What distinguished America was not the amount of upward mobility but, in sharp contrast to most European countries, the way it was welcomed, encouraged and cherished.

24. The knowledge society takes this approval of upward mobility much further: it considers every impediment to such mobility a form of discrimination. This implies that everybody is now expected to

be a "success"—an idea that would have seemed ludicrous to earlier generations. Naturally, only a tiny number of people can be outstanding successes; but a very large number are expected to be adequately successful.

25. In 1958, John Kenneth Galbraith first wrote about "The Affluent Society". This was not a society with many more rich people, or in which the rich were richer, but one in which the majority could feel financially secure. In the knowledge society, a large number of people, perhaps even a majority, have something even more important than financial security: social standing, or "social affluence".

H. Competitiveness in the Knowledge Society

26. The upward mobility of the knowledge society, however, comes at a high price: the psychological pressures and emotional traumas of competitive modern life. There can be winners only if there are losers. This was not true of earlier societies. The son of the landless labourer who became a landless labourer himself was not a failure. In the knowledge society, however, he is not only a personal failure but a failure of society as well.

27. Japanese youngsters suffer sleep deprivation because they spend their evenings at a crammer to help them pass their exams. Otherwise they will not get into the prestige university of their choice, and thus into a good job. These pressures create hostility towards learning. They also threaten to undermine Japan's prized economic equality and turn the country into a plutocracy, because only well-off parents can afford the prohibitive cost of preparing their youngsters for university. Other countries, such as America, Britain and France, are also allowing their schools to become viciously competitive. That this has happened over such a short time—no more than 30 or 40 years—indicates how much the fear of failure has already permeated the knowledge society.

28. Given this competitive struggle, a growing number of highly successful knowledge workers of both sexes—business managers, university teachers, museum directors, doctors—"plateau" in their 40s. They know they have achieved all they will achieve. If their work is all they have, they are in trouble. Knowledge workers therefore need to develop, preferably while they are still young, a non-competitive life and community of their own, and some serious outside interest—be it working as a volunteer in the community, playing in a local orchestra or taking an active part in a small town's local government. This outside interest will give them the opportunity for personal contribution.

Part 4: Tracking text referents

What do each of the underlined phrases in the text refer to? You will find these in sections A – C and G – H.

Part 5: Discussion

1. Work with a partner to describe the main features of the charts given in the text.
2. Go to the following links and compare current data with the data given in the text. Were the predictions of the text correct?

A. Distribution of employment (world or selected countries)

https://data.worldbank.org/indicator/SL.IND.EMPL.ZS

B. Female labour force participation

https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS

https://ourworldindata.org/female-labor-force-participation-key-facts

C. Participation in tertiary education:

https://ourworldindata.org/tertiary-education

Wk 7 Reading 2: What Peter Drucker knew about 2020

Lesson Objectives
• Practise taking notes for a specific purpose • Compare and edit notes

You will find the activities associated with this text on Canvas

Wartzman, R. (2014). What Peter Drucker knew about 2020. *Harvard Business review*. Retrieved from the Harvard Business Review website: https://hbr.org/2014/10/what-peter-drucker-knew-about-2020

What Peter Drucker knew about 2020

When PwC (Price Waterhouse Coopers) released its annual survey of corporate chief executives for 2014, it was immediately obvious that change is on leaders' brains: "As CEOs plan their strategies to take advantage of transformational shifts," the consultancy reported, "they are also assessing their current capabilities – and finding that everything is fair game for reinvention."

It's no wonder why.

"Every few hundred years throughout Western history, a sharp transformation has occurred," Peter Drucker observed in a 1992 essay for Harvard Business Review. "In a matter of decades, society altogether rearranges itself – its worldview, its basic values, its social and political structures, its arts, its key institutions. Fifty years later a new world exists. And the people born into that world cannot even imagine the world in which their grandparents lived and into which their own parents were born. Our age is such a period of transformation."

For Drucker, the newest new world was marked, above all, by one dominant factor: "the shift to a knowledge society." Indeed, Drucker had been anticipating this monumental leap – to an age when people would generate value with their minds more than with their muscle – since at least 1959, when in Landmarks of Tomorrow he first described the rise of "knowledge work." Three decades later, Drucker had become convinced that knowledge was a more crucial economic resource than land, labour, or financial assets, leading to what he called a "post-capitalist society." And shortly thereafter (and not long before he died in 2005), Drucker declared that increasing the productivity of knowledge workers was "the most important contribution management needs to make in the 21st century."

Sadly, judging from the way most of our institutions are run, we are still struggling to catch up with the reality Drucker foresaw. How should managers alter their approaches to fit the times? Here are six aspects of running an enterprise that should now be front-and-centre:

Figure out what information is needed. "It is information," Drucker wrote, "that enables knowledge workers to do their job." This is especially true for executives. The trouble is, even in a hyper-connected world where endless amounts of data are literally at our fingertips, many rely on the producers of the data – the bean counters, the sales force, the IT department – to serve up the numbers they believe are most relevant. And these folks don't necessarily have a clue. A 2014 McKinsey & Co. survey found, for example, that fewer than 20% of IT professionals say they are effective at targeting where they can add the most value inside their organizations. "An adequate information system," Drucker wrote, must lead executives "to ask the right questions, not just feed them the information they expect. That presupposes first that executives know what information they need."

Actively prune what is past its prime. Virtually every executive is eager to see his or her organization innovate. Through our work at the Drucker Institute, however, it is clear that most are reluctant to take the necessary first step toward creating the new: continually winding down those products, services, programs, and procedures that are no longer making a real contribution. "Every organization will have to learn to innovate" on a constant basis, Drucker wrote. "And then, of course, one comes back to abandonment, and the process starts all over. Unless this is done, the knowledge-based organization will very soon find itself obsolescent, losing performance capacity and with it the ability to attract and hold the skilled and knowledgeable people on whom its performance depends."

Embrace employee autonomy. Drucker urged executives to push decision-making and accountability all the way down through the organization as early as 1954, when he introduced the concept of Management by Objectives. And yet there is ample evidence that most organizations remain paragons of command-and-control. In a knowledge economy, top-down direction is particularly detrimental because employees are bound to know more than their supervisors do about the specialized fields in which they operate. They may also know more about the customer—his needs and desires. "Knowledge workers have to manage themselves," Drucker advised. "They have to have autonomy."

Build true learning organizations. "If knowledge isn't challenged to grow, it disappears fast," Drucker cautioned. "It's infinitely more perishable than any other resource we have ever had." To keep it fresh, John Hagel, co-chairman of Deloitte's Center for the Edge, says that firms need "new architectures" designed to increase the flow of information and learning inside and outside the organization's walls. Traditionally, the organizing principle for businesses was to achieve efficiencies of scale. Now, Hagel says, "scalable learning" must be the aim. Pursuing it begins with redesigning work environments to foster new knowledge creation – that is, to move beyond sharing what's already known to helping workers make genuine discoveries more quickly by tackling performance challenges together. Unfortunately, there's an awfully long way to go. Asked how many corporations have implemented this vision, Hagel says: "The answer is zero."

Provide a much stronger sense of purpose. Survey after survey reveals that the vast majority of employees are not engaged in what they do. One big reason is the failure to connect people's jobs with a larger sense of purpose. Too often, the organization seems to be an end in itself; no meaningful link has been forged between the daily tasks of the enterprise and how they serve the customer and better society. "What motivates – and especially what motivates knowledge workers – is what motivates volunteers," Drucker wrote. Among other things, "they need to know the organization's mission and to believe in it." A paycheck, even a fat one, is not enough. No longer can

organizations expect to inspire "by satisfying knowledge workers' greed," Drucker counseled. "It will have to be done by satisfying their values."

Be more mindful of those left behind. Drucker worried a lot about a group that he characterized as "knowledge-worker cousins": service workers. "Knowledge workers and service workers are not 'classes' in the traditional sense," Drucker wrote. "But there is a danger that … society will become a class society unless service workers attain both income and dignity." He added: "Anyone can acquire the 'means of production', i.e., the knowledge required for the job, but not everyone can win." Again, Drucker's words prove prescient as the gains in the knowledge economy are hardly being shared equitably. "Our basic grievance with today's billionaires is that relatively little of the value they've created trickles down to the rest of us," the University of Toronto's Roger Martin asserts. He warns that this situation is unsustainable, and that top executives need to rein in their compensation. Surely, Drucker would have agreed. "A healthy business," he wrote, "cannot exist in a sick society."

It's easy to forget how profound the emergence of the knowledge age really is. Ours is "the first society in which 'honest work' does not mean a callused hand," Drucker noted. "This is far more than a social change. It is a change in the human condition." But for all that, what it takes to manage effectively now is no mystery. We've been headed down this path for more than half a century.

In his HBR piece, Drucker suggested that our great transformation would be completed by 2010 or 2020. It is high time that management started acting like the clock is running out.

Listening

Wk 7 Listening 1

Lesson Objectives
• Predict text structure and organisation • Understand the use of key word repetition to signal text structure • Practise using abbreviations

Part 1: Homework review

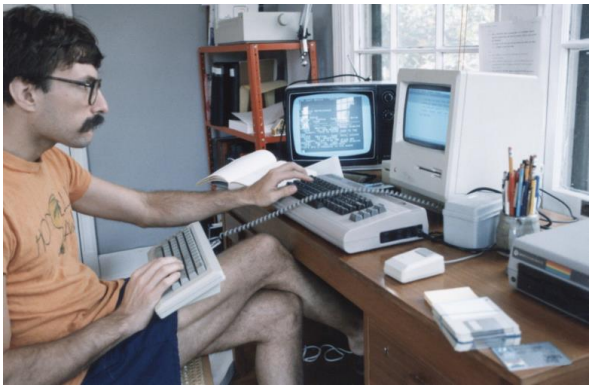
Work with a partner. Use the notes you have taken from ***Wk 7 Reading 2: What Peter Drucker knew about 2020***.

Give your partner a verbal summary of your notes in answer to the key concept question:

How far is the shift to a knowledge economy changing the skill base required in the workforce?

1. Identify similarities and differences in your summaries.
2. Try to agree on a final summary.
3. Share your summary (verbally) with another pair.
4. Come to a conclusion as a group as to what the most important points in the article are in answer to the key concept question.

Part 2: Before you listen



Preparing to listen

The following sentences are taken from the introduction to the lecture. Identify what sort of word is needed. Listen to the recording and fill in the blanks in the sentences.

a. What I'd like to talk about today is the effect …… will have on the work force in the next few years.

b. I'm going to focus on various changes in the …… of the workforce which we're already beginning to see and which we'll see more of in the coming years.

c. If we look closely at the …….. of workers today we're already beginning to see very different characteristics compared to workers of only a decade ago.

d. And this is important because any basic change in the characteristics, ……..……, ……..….. and expectations of millions of workers in all areas of work is going to require equally ……..…. changes in the way those individuals and teams ……. in companies and organisations.

Part 3: Listening and note-taking

Now listen to the recording and take notes under the headings.

Headings for note-taking

The workforce of the next decade (from 2004) with example

Interesting research about a new category

Rise of knowledge work as dominant economic activity - drivers

Definition of these values

Changing workforce demographics

The four generations of workers

What this means – 2 points

Conclusion

What this workforce will demand

Part 4: Using your notes

Use your notes to answer the following questions.

Questions 1 – 3 Multiple Choice.

Choose one answer.

s. Richard Florida defines the "creative class" as those who
- a. are involved in high-end knowledge work.
- b. like to join professional organisations.
- c. are usually artistic and musical.
- d. try to invent new types of products.

2. "Creative" activities are those which
- a. take society's values into account.
- b. involve a slow and indirect process.
- c. tend to have an unpredictable outcome.
- d. are unproductive but valuable.

3. According to the speaker, the main driver of workplace change in 2004 was
- a. d birth rate changes in developed countries.
- b. the rise of a new creative class of workers.
- c. structural changes in workplaces worldwide.
- d. increasing immigration and the need for more jobs.

Questions 4 – 6 Multiple Choice

Choose three answers.
Identify which of the following values apply to workers of the creative class.

Creative workers
- a. feel more comfortable conforming to an organisation's requirements.
- b. tend to rely on their friends and family to motivate them.
- c. require their tools and equipment to be supplied by their employers.
- d. are loyal to themselves rather than the company.
- e. intend to work in many different workplaces and positions.
- f. appreciate being "lone wolves" in the workplace.
- g. put their choice of where to live ahead of the job they want.

Questions 7 – 10 Summary Completion

Complete the summary using no more than three words for each space.

Workplaces are changing. The most important impact relates to demographic changes related to 7. _____, leading to an increasingly ageing population. This will affect such areas as work, incomes and the 8. _____ of workers to work and life. The presence of different generations in the workplace has not occurred before and will have an impact in such areas as 9. _____ and
10. _____.

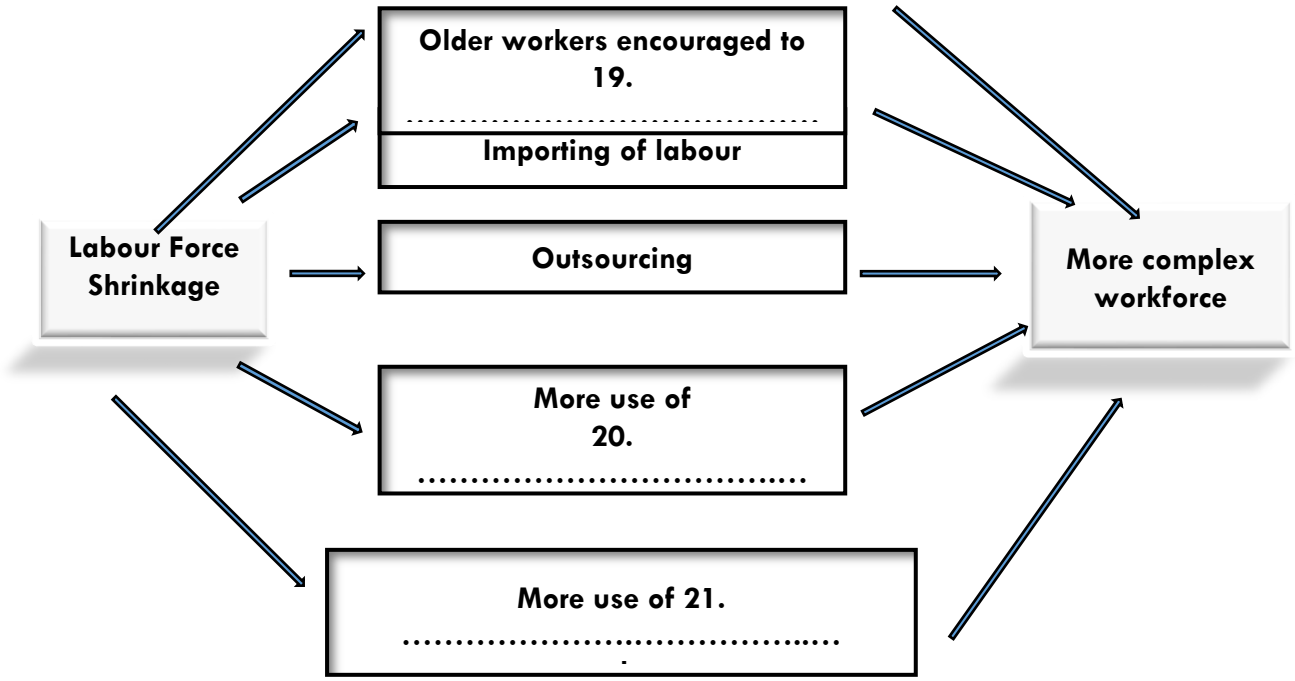
Questions 11 – 18 Table

Complete the table using no more than three words for each space.

The Four Generations of Workers		
Name of work group	**Age**	**Characteristics**
1st group: termed 11. ……..……	50-60	Don't want traditional retirement. Want to 12. ……
2nd group	13. ……..…	Most valuable; Have been 14. …….. years in workforce Have issues with work-life balance
3rd group	15. ……..	Hard-working professionals with energy Lack 16. …….
4th group: termed 17. ……..	20s	Grew up with technology Good at 18. ……. Sociable and collaborative Will work hard but move on if necessary

Questions 19 – 21 Flow Chart

Complete the flow chart using no more than three words for each space



Questions 22 & 23 Short Answer

Answer the following questions using no more than five words for each answer.

22. The speaker mentions some consequences for workers of having a more complex workforce. What is one of these consequences?

……..

23. Managing this diversity and the related changes in the workplace could also put strain on what other group of workers?

…….

Questions 24 & 25 Multiple Choice

Choose one answer.

24. In his conclusion, the speaker states that the demographic shift he has been discussing will result in
    a. greater likelihood of staff needing to commute.
    b. issues related to employing enough talented staff.
    c. more use of electronic communication.
    d. increased costs of staff relocations.

25. The speaker believes that workers in the future will generally
    a. demand higher wages and training.
    b. be more willing to agree to employers' demands.
    c. be hostile to the expectations of companies.
    d. insist on a more flexible and collaborative workplace.

Part 5: Signals of text organisation

1. Before you check your answers, read the transcript and highlight any language that the speaker uses to signal the organisation of the talk
2. Use the transcript to write new notes that show the organisation of the talk – use indenting, underlining, bullet points, etc to signal the organisation of the talk in your new notes
3. Compare the notes you have written from the transcript with the sample notes.
   How do the sample notes signal the hierarchical organisation of information in the talk?
   What abbreviations do the notes use?
4. Compare your new notes and the sample notes with the notes you took while you were listening. What strategies can you use to improve your notes?
5. Listen again to the lecture, and take notes again. Try to improve on the notes you took the first time you listened.
6. Now use your new notes to reconsider your answers to the questions. Compare with a partner and check the transcript for the answers.

Part 6: Reflection

1. Which question types did you have difficulty with? What strategies could you use to help you?
2. How effective were your notes to help you answer the questions? How can you improve your note-taking?
3. What is your main "take-away" from this lecture? Try to summarise the main ideas in one or two sentences.

Part 7: Discussion

1. What are some of the main predictions the lecturer made about changes in the workforce?

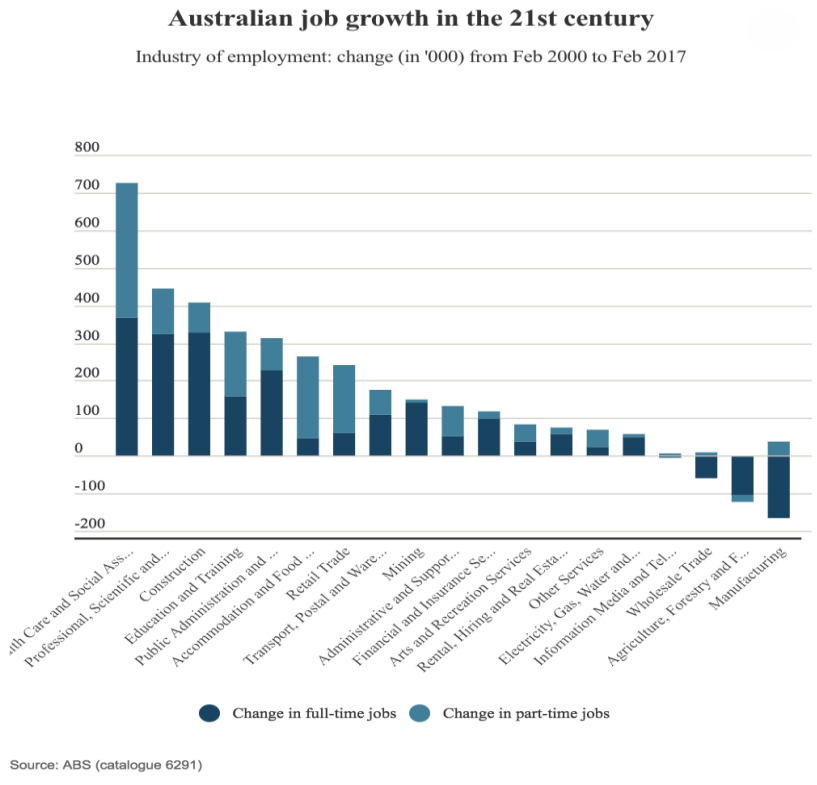
2. Go to the first link on Canvas to see a list of professions with current skills shortages in Australia. (just look through the listed professions – there's no need to go into each profession). This list is updated every 6 months by the Australian Government Department of Jobs and Small Business.

   What kind of jobs are listed? Were the lecturer's predictions correct?

3. Go to the second link on Canvas and read the table called **"Snapshot of Employment by Industry"** under the heading **"Employment by Industry (head count).**

   The data are only for the last 2 years. However ,does it seem to support the lecturer's predictions?

3. Consider this chart showing changes in employment in Australia since 2000. What are the main features of the chart? Does it support the lecturer's predictions?



Source: ABS (catalogue 6291)

https://www.theaustralian.com.au/business/bettercities/job-growth-in-australia-points-to-future-prosperity/news-story/4e6b4a314798e41a602254513f03aaf2

Transcript

Adapted from: The Future of Work. (2004, May). *Corporate Real Estate Leader*.

1. Welcome to today's lecture. What I'd like to talk about today is the effect demographics will have on the work force in the next few years. And what I'm going to focus on is various changes in the distribution of the workforce which we already beginning to see and will see more of in the coming years. I'll also outline how these changes are going to affect organisations.
2. The work force of the next decade will be significantly different to the one we saw at the beginning of the millennium. But if we look closely at the characteristics of workers today we are already beginning to see very different characteristics compared to workers of only a decade ago. And this is important because any basic change in the characteristics, beliefs, values and expectations of millions of workers in all areas of work is going to require equally fundamental changes in the way those individuals and teams are managed in companies and organisations.
3. Let's look at an example of this. One of the characteristics which has changed in recent years and affects both organisations and management is what we like to call the demand for workers. What I mean by this is the kinds of workers who are required to do the kind of work that needs to be done.
4. And there's been some very interesting research done on this at the Carnegie-Mellon University where Professor Richard Florida, that's F-L-O-R-I-D-A, has collected data which shows very clearly that the most rapidly increasing category of workers is what he calls the 'creative class' and this refers to those who are engaged in what others have called high-end knowledge work or what might be described as 'creative activities'. And by this I mean the kind of work which involves knowledge or creativity or both. They could be lawyers or accountants as well as core creative types such as artists, writers, musicians and entertainers.
5. The rise of knowledge work as the dominant activity in the economy has driven the development, formation and emergence of this new class of workers – those who produce and apply knowledge in activities with a low process structure and an unpredictable outcome.
6. And it's this creative work which creates economic value and competitive advantage today. But the most important work force management insight which has resulted from Florida's research and analysis, is a new set of values and expectations that this new class of 'creatives' is bringing to their work.
7. Florida has defined these new values as the following:

Firstly, they work to an individual timetable, they are also self-motivated and self-directed and rely on their own tools or equipment such as PC's and other mobile devices. They tend to place their profession and their own career ahead of any loyalty to a particular employer. They expect to work in a variety of job situations and for a variety of employers over time and they place a high value on self-control. What I mean by this is that they are in charge of what they do, where they do it, and under what conditions. Another characteristic of these creatives is that they prefer to work in close proximity to others who share their interests, skills and work styles. They tend to choose where they want to live and work first and only after they have chosen this do they start to worry about who they will work for or where they will find the kind of work they want to do.

8. But let's move on now to talk about the changing work force demographics.

First, let's consider the impact of recently changing birth rates along with aging of the so-called Baby Boomers – you might know that we refer to those born after the second world war, that is the late 1940's to the late 1950's as the Baby Boomers – and it is this generation that is currently in its late

50's. Birth rates have an enormous impact on the labour pool, and therefore on job opportunities, wage and salary expectations, and related attitudes about work and life.

9. Indeed, perhaps the most fundamental driver of work force diversity today is the continuing decline in birth rates in virtually all developed countries around the world. The work force is aging and growing at a much slower rate. The result is a much broader range of ages in all professions – generational diversity is a new condition that most organisations have never faced before. And the shrinking number of new entrants to the work force means more importing of labour – and therefore a more multicultural work force. It also means more outsourcing or exporting of work, more use of consultants and using more part-timers or casual workers. It also means a growing need to keep older workers in the active labour pool.

10. In fact, many organisations are already having to cope with four 'generations' of workers in the workplace all at the same time. These four groups are

Firstly 'Seniors' – that is the baby boomers who are in their 50's and 60's. These people don't want traditional retirement. Many want to continue working, often on a part time basis.

11. Then we have people in their 40's. And these are often the most valuable workers. They are young enough to have lots of energy, they are ambitious and want to contribute but they might have already been in the workforce for 20 years. They are frequently the parents of growing children and may be caught in the work/family balance issues.

12. Then there's the group of people in their 30's. They are young and hard-working professionals, but often still lack experience. They have lots of energy but they still need lots of direction.

13. And finally, we have what we call Generation X or Generation Y. This group, mostly people in their 20's came into the workforce with a very different perspective to older workers. They grew up with the PC and SMS messaging, Game Boys and mobile phones. They are good at multi-tasking and they are sociable and collaborative and they like loud music. They will work hard but only on their own terms. They won't suffer under poor managers and will move onto the next job quickly if they don't feel inspired, or if someone tells them to turn their music down!

14. And this overall shrinkage in the number of new entrants into the workforce which we are experiencing, is another reason why older workers will be actively encouraged to stay in the workforce. As I mentioned before, there will be more importing of labour, outsourcing, more use of consultants and more part time workers.

15. And all of these factors mean that the work force is going to be much more complex than previously. For example, what we might see is more choice for workers. They will be able to have more say in the design of their workplaces and the equipment used. This diversity could put enormous strain on infrastructure and support staff, who'll be tasked to satisfy those complex requirements and manage the resulting portfolio of workplaces and technologies.

16. So in conclusion, what we are going to see in the next few years is a demographic shift and this is going to result in a major talent shortage, especially in the area of knowledge workers in the developed world. We may see people become more reluctant to move or relocate to where companies want to be. Instead companies will have to think about where the workers are, and how they can move their business there. Work will have to be taken to the worker.

17. In addition, this new work force will demand and expect, very different workplace configurations. By this I mean, more collaborative space in corporate facilities, a wider range of locations and facilities in which work can be accomplished, more personal control over when and where they will work, and more support for remote and mobile work styles.

Speaking

Wk 7 Participating in a discussion

Lesson Objectives
• Learn how to move the discussion forward • Learn how to agree and disagree in a meaningful way • Practise appropriate participation in a small discussion

Part 1: Agreeing & disagreeing

Follow the instructions on Canvas

Part 2: Sample discussions

Watch the sample videos of individuals discussing these questions on this week's topic:

Future employees will need to have the skills to adapt to fast changing work environments and the ability to use and manage vast amounts of information.

1. Whose responsibility is it to prepare students for this?

2. How can universities best prepare their students for the future jobs market?

1. Do the speakers agree or disagree with each other in answer to these questions? What reasons do they give?

2. How do the speakers agree or disagree with each other? Note any language / strategies you hear.

Note useful language here:

Agree	
Disagree	
Partly agree	
Redirect the discussion	
Other?	

Part 3: Analyse your response

Work with the same partner you worked with to complete Part 1: Agreeing & disagreeing
Follow the instructions on Canvas

Part 4: Pronunciation

Tasks 1 & 2

John: But there was some agreement in the articles about the kind of skills, the core skills, that people might need in the future. Talking about things like, you know, the STEM: science, technology, engineering and mathematics subjects. So I think if people focus on those sort(s) of subjects, that could help us as a platform for the future perhaps.

Maria: I'm not quite sure…..is that what that article said? I thought it was saying that STEM skilled graduates need other…...They don't just need those, they need all those other skills, like critical thinking and problem solving, sort of meta-skills on top of those skills.

John: Well they do, but until you have those core skills, you can't build on, you know, those skills.

Tasks 3 & 4

Extract 1

John: So it's not just employers and universities that need to get together, it's different faculties that need to get together I think.

Extract 2

Dick: The other thing that's interesting is that it started talking about High School, not university at all. It started talking about 10 to 14 year olds.

Maria: But it even started to talk about preschool. You know…..Getting in really early.

Extract 3

Dick: Now, are we talking about university students here? Are we talking about people who leave high school? You know, we assume we're talking about graduates, but they're still only the minority of school leavers. The majority of people still do not go on to university. And even if they go on to tertiary education, it's not necessarily a degree course.

Part 5: Discussion

Key concepts

Wk 7 Knowledge economy key concepts

Lesson Objectives
• Identify the key components of the writing question • Understand the task given in the writing question • Plan note-taking organisation and strategies

Part 1: Analyse the question

This week's practice writing task will require you to answer the following question:

How far is the shift to a knowledge economy changing the skill base required in the workforce?

1. What are the key topic words in this question?

2. What is the question asking you to do?

3. What are the possibilities for answering this question?

4. What are the key functions that you will need to include in your answer?

5. As you work through this week's reading and listening material, make notes of any information you find that is relevant to answering this question. Not all the reading and listening texts will be useful.

The Economist (2001)	Rayner & Papakonstantinou (2015)	Andrews (2015)	Pompa (2015)	University of Sydney: Graduate Qualities (2018)
				.

The Economist (2001)	Rayner & Papakonstantinou (2015)	Andrews (2015)	Pompa (2015)	University of Sydney: Graduate Qualities (2018)
				.

Part 2: Key concept texts

Text 1

Employer perspectives of the current and future value of STEM graduate skills and attributes: An Australian study

Edited extract from
Rayner, G., & Papakonstantinou, T. (2015). Employer perspectives of the current and future value of STEM graduate skills and attributes: An Australian study. *Journal of Teaching and Learning for Graduate Employability*, *6*(1), 100-115.

Graduate employability has become increasingly contentious as employers call for greater development, evaluation and benchmarking of student skills and capabilities in university courses. However, the increasing range of graduate attributes and competencies demanded by industry is further pressuring an Australian higher education sector already stretched by greater student numbers and declines in government funding. Given these circumstances, there is a need to better understand employer perspectives of the current and future value of vocational, interpersonal and generic attributes of science, technology, engineering and mathematics (STEM) graduates. A survey of STEM graduate employers showed that vocational skills, such as graduates' abilities to contextually apply and develop knowledge, together with generic skills such as critical thinking and problem solving, were valued most highly. Conversely, self-confidence and independence, along with numeracy and related skills, were valued least by the employers. However, attributes such as flexibility/adaptability, self-confidence, personal planning and organisation and developing knowledge relevant to the position were all predicted to become significantly more valuable in a decade's time. The results of this study suggest that Australian undergraduate STEM curricula, which commonly focus on knowledge acquisition, be redesigned to provide students with opportunities to apply such knowledge more often, and in real life, industry-based contexts, such as work-integrated learning (WIL) and industry-based learning (IBL) programs.

Graduate employability has become an increasingly contentious issue (Hinchliffe, 2009; Ferns, 2012) as the tertiary education sector grapples with rapid change, and a range of other complex issues. These include the balancing of research and teaching, maintenance and assessment of academic standards amid competing pressures of reduced government funding and massification of undergraduate cohorts, and optimizing ICT for effective learning and teaching delivery (Christensen & Eyring, 2012). As a consequence of the changes that are sweeping across the higher education landscape, the traditional model of a university degree - the inculcation of discipline-specific knowledge and associated relevant skills and attributes - has been called into question (Boud, 2013; Christensen & Eyring, 2012). From a graduate's perspective, it is crucial that the changes occurring in higher education do not adversely impact the quality of their employability skills. In relation to this, graduate attributes can be categorised as vocational, interpersonal and generic. Vocational attributes are knowledge and practical-related abilities acquired in a specific discipline; generic attributes are transferable across different domains; interpersonal attributes are life skills

used to work and interact effectively with others (Hernández-March, Martín del Peso, & Leguey, 2009)

Over the past decade, employers have increasingly called for institutions to produce better skilled graduates (OECD, 2004; Tomlinson, 2008), with the wish list of desired graduate attributes seeming ever lengthier. Of generic skills, communication, critical thinking and problem solving appear to be most highly valued by employers (Clegg, 2013; Hodge, Nadler, Shore, & Taylor, 2011; Prinsley & Baranyi, 2015), as they enable graduates to resolve complex problems in real-life contexts, such as the 21st century workplace (McLaughlin, Kennedy, & Reid, 2015). Indeed, there may be connections among these attributes, as proficiency in writing is thought to enhance students' critical thinking skills (Quitadamo & Kurtz, 2007). The transferability of such attributes from university to the workplace is also a crucial consideration, as it catalyses graduates' ability to maximize their job productivity (Jackson, 2014).

(534 words)

Text 2

Jobs of the future: The known unknown

Extract from:

Andrews, K. (2015). Jobs of the future: The known unknown. *Australasian Science*, 36(7), 38.

The Australian labour market will undergo a profound transition over the next 10–20 years. It's hard to comprehend, but it's been estimated that 5.1 million or 44% of current Australian jobs are at risk from digital disruption over the next 20 years. If you find this difficult to believe, think about this. Today you are likely to consult with an app designer, a search engine optimisation specialist, a blogger and a social media adviser to promote a new product. These are all jobs that didn't exist 10 years ago. In a world of unknowns, what we do know is that change is here to stay and will have a profound effect on the economy and the labour market. This is what scientists call the "known unknown".

It's an issue that has certainly been at the front of my mind as I've travelled around the country talking to people about science, technology, engineering and maths. Everyone that I have spoken to has certainly acknowledged that a lot more needs to be done to improve the skills of our nation in order to prepare ourselves for the future. But many don't fully understand the reason why increasing STEM skills – science, technology, engineering and maths – is not optional.

There are some key indicators of the skills we will need. One of these is the ability to critically analyse the enormous amounts of data we are amassing. The Square Kilometre Array (SKA) radio telescope project, to be built in the Western Australian outback, will provide us with a Google map of the universe, producing ten times the current levels of global internet traffic (AS, July/August, 2015, pp.37–39). In the future, as technology continues its exponential growth, our ability to be able to analyse and interpret, to critically think, to lead and inspire, will be our competitive advantage.

There are some things we need to do before we race headlong into purported solutions. We need to understand the problem. It's not a quick fix. We know that the real opportunity lies with our 10–14 year-olds. There is, however, a strong argument that we should be engaging much earlier. In fact, a German program called "Little Scientists" is currently being rolled out in 40 or so kindergartens across NSW.

We also know that there is an even greater issue we need to address – the impact of the influencers on our students. We need to make sure that parents are aware of what skills the jobs of the future need. They need to know that the job market for lawyers is tight but there are thousands of vacant jobs in the ICT sector. They need to encourage their bright students to do the hard maths instead of an easier option. Career advisers, principals, peers, the motivational speaker that spoke at careers night or even the family friend that travels around the world for work can all have a huge influence on a

young person's career path, and can impart the value of core STEM skills for future careers. And we need them to do exactly that.

The problem is certainly complex, and there is not just one magical fix for this. We must have a sensible debate about the way forward. We need to understand that it's going to take a minimum of 10 years to influence the 10-year-olds in school now, and get them through their science subjects and into the workforce. This is a long-term process, but work is already underway. We intend to continue pushing forward as a government, and I am committed to working with industry and the science sector to ensure the development of a national STEM strategy that puts us on the right trajectory to capitalise on the jobs of the future.

(625 words)

Text 3

The skills for the jobs of the future

Edited extract from
Pompa, C. (2015). Jobs for the Future.

The past decades have seen a significant transformation in demands on the workforce and this trend is likely to continue in the future. Increasingly, employers have become more focused on the skills sets an individual brings to the table rather than in academic or job titles. While different employers in varied industries use different taxonomies for skills, there is a relative agreement that a successful individual in the workforce of the future will be one with strong technical skills and the necessary life and career skills that will allow him/her to navigate a constantly changing landscape.

There are numerous skills taxonomies in existence, but for this section of the report, we have chosen to rely mainly on skill categorisations provided by the work of Trilling and Fadel (2009) and the Partnership for 21st Century Learning (P21). Their work on the issue of education and skills for the workforce of the 21st century provides a particularly strong and comprehensive framework – The Framework for 21st Century Learning– that aligns closely with the views portrayed in this report. The framework focuses both on the essential foundations, or core subjects, on which technical skills can be built, as well as the skills, knowledge and expertise necessary to succeed in the workforce of the future.

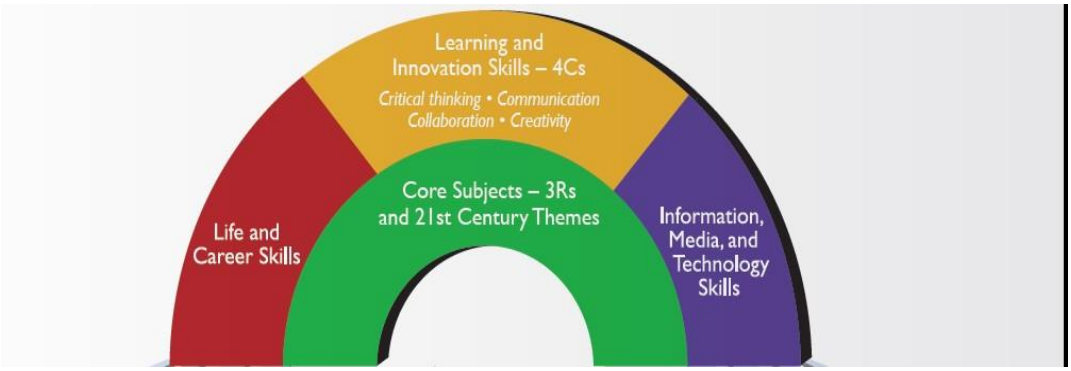


Figure 1: Framework for 21st Century Learning

Source: *Partnership for 21st Century Learning (2014)*

The framework identifies core subjects that form the foundation of knowledge for any student in the 21st century, and are the necessary base upon which to build on any technical skills and qualifications. The core subjects include reading, languages, mathematics, economics, science, geography, arts, history and civics. Additionally, P21 also strongly encourages the inclusion of the interdisciplinary themes of global awareness, financial, economic, business and entrepreneurship literacy, civic engagement, health and environmental literacy into the curriculum.

The framework also recognises three main set of skills are most critical to future success:

- Learning and innovation skills
- Information, media and technology skills
- Life and career skills

Through the adaption of these main skill sets, future workers will be able to harness and master the applied knowledge they need for careers in high-growth sectors. Without these basic skills, they will be left behind as the world moves away from traditional learning curves and expects workers to perform in a more complex environment.

Learning and innovation skills

According to Trilling and Fadel (2009), this set of skills – which include critical thinking and problem solving, communication and collaboration, creativity and innovation – will be the one of the main differentiators in the workforce of the future and will be at the core of individuals looking to become life-long learners.

Critical thinking and problem solving: Repetitive tasks will not be serviced by the worker of the future as they are outsourced or eliminated by technology. This will make the ability and capacity to solve difficult and diverse problems vital. Organizing and analyzing complex data, understanding systems and interactions, and producing novel and innovative solutions are the skills most valuable to modern companies (P21, 2014).

Communication and collaboration: New technology, digital tools and an increasingly demanding lifestyle will require a complex portfolio of communication and collaboration skills. Being able to communicate effectively at all levels -- verbally, written, visually and digitally -- will be of key importance. Multi-cultural and multi-generational teams will also require exceptional communication skills in order to collaborate effectively. Blending technical know-how with the ability to communicate across disciplines and cultures will be seen as an asset.

Creativity and innovation: We expect most of the innovation of the future to take place at the intersection of disciplines, combining different fields and technologies. In this scenario, innovative problem-solving methods, investment in and understanding of new technology, and a hunger for invention of ground-breaking industries and knowledge will be highly regarded (Trilling and Fadel, 2009).

Information, media and technology skills

According to Trilling and Fadel (2009), this set of skills has the potential to provide the next generation with an unprecedented power to think, learn, communicate and create.

Technological literacy: Digital competence has ceased to be solely under the jurisdiction of the IT department. The workforce of the future will be required to retain an increased level of digital competence and the ability to constantly adapt to new technological developments.

Information and media literacy: The ability to proactively and intelligently engage, access, evaluate, apply and manage information will be essential to the future workforce. Furthermore, the explosion of consumer created content will require employees to critically assess and develop content using new media platforms to engage and persuade audiences (Davies, 2011).

Data literacy: Employers mainly interpret literacy as the ability to manage, understand and interpret large amounts of data. Most important will be the ability to turn data into relevant and useful insights that can increase productivity and lead to further innovation (Davies, 2011).

(800 words)

Writing

Wk 7 Key concept note-taking

Lesson Objectives
• Understand the critical response task • Identify writer's position • Practice taking and organising notes relevant to a given question

Part 1: Review the question

Our question for your writing task this week is the following:

How far is the shift to a knowledge economy changing the skill base required in the workforce?

3. What are the key topic words in this question?

4. What is the question asking you to do?

5. What are the possibilities for answering this question?

6. What are the key functions that you will need to include in your answer?

Part 2: Making notes

Watch a short video called ***Education and training in a changing world: what skills do we need?*** 

The video is produced by UNESCO.

1. Just listen the first time. Discuss with a partner what you hear that is relevant to our key concept question.

Before you listen, focus your attention and plan.

- What are you listening for specifically?
- What else are you likely to hear?

2. Listen again and take notes.

Part 3: Review your notes

1. Compare the notes you have taken from the video with the notes you have taken from the reading assigned for this task. Can you identify common themes or views? Is there any conflicting information or views?

2. Reflect on the discussions you had about the Wk 7 Key concept texts texts in the lesson ***Wk 7 Participating in a Discussion.*** What further insights did you gain into the texts?

3. Review the texts for this task and add to or edit your notes. Think carefully about how to show in your notes common themes or views, or differing views.

Wk 7 Critical response sample 2

Lesson Objectives
• Identify writer's position • Identify text organisation • Review old-new information links between sentences • Understand language and organisation of causality

Part 1: Deconstruction

Read critical response samples 2A and 2B which answer the question:

How far is the shift to a knowledge economy changing the skill base required in the workforce?

Write 500 – 700 words

Sample 2A

The workforce across the developed world is undergoing a revolution. Knowledge work, or work that requires intellectual rather than manual skills, is becoming increasingly prevalent. Knowledge workers represented over 30% of the workforce in the US by 2001 (The Economist, 2001), and that percentage has continued to increase. This structural economic change means that profound transformations will need to occur across a range of areas: in the education system that prepares students for the workforce (Rayner & Papakonstantinou, 2015; University of Sydney: Graduate Qualities, 2019), in the companies that employ these workers (Pompa, 2015), and in the skill base of workers themselves. Changes to the necessary workforce skill base have already been, and will continue to be, profound. While many of the skills required for the knowledge economy are not in themselves new, they will become increasingly important for a significant proportion of the workforce. It will also be necessary to learn and continually update many new skills.

Critical thinking, problem solving, creativity and effective communication are skills that have always been important, but they have traditionally been highly valued as workplace skills only in particular disciplinary fields. However, in the knowledge economy, these types of skills will become mainstream and essential for most workers (Rayner & Papakonstantinou, 2015; University of Sydney: Graduate Qualities, 2019; Pompa, 2015). An increasing number of workers will be required to perform higher level tasks that need creative problem-solving skills because manual work and more tedious or repetitive tasks are likely to be assigned to technologies such as artificial intelligence (Pompa, 2015). While these higher-level skills are not new in themselves, their increasing importance represents a significant shift in the skill base necessary to participate in the workforce.

In addition to creative problem-solving abilities, a broader range of competencies are also increasing in importance. The University of Sydney Graduate Qualities (2019) includes areas such as digital literacy and cultural competence, both of which are considered essential in our digitized and globalized world. Digital skills have become an essential component of almost any job description and are no longer the exclusive domain of IT specialists (Pompa, 2015). The vast quantities of data created by the digital technologies we employ must also be analyzed, evaluated and managed effectively in order to use them to benefit organizations (Davies, 2011, cited in Pompa, 2015; Andrews, 2015). Another skill which is becoming increasingly valued in the workplace is cultural competence. This is defined by the University of Sydney (2019) as the ability to "engage across and between cultures." As companies shift to more globalized operations, workers must be able to communicate courteously and understand effectively in the international arena.

Another skill set which employers value more highly than in the past is the integration of skill areas, or "interdisciplinary effectiveness" (University of Sydney: Graduate Qualities, 2019). In the past, graduates tended to become specialists in a particular field, and rarely needed to venture beyond that field. However, the complexity of global issues and decision-making means that the ability to work effectively with others from fields outside one's particular discipline is now crucial. Employees will be required to work in multidisciplinary teams in order to bring together different fields of knowledge to understand and manage such complex issues. Related to this interdisciplinary effectiveness is the trend toward lifelong learning. Whereas in the past, formal study tended to end once a qualification was gained, a graduate's skills will need to be continually expanded. The need for lifelong learning is also driven by rapid advances in technology which necessitate continual updating of these skills (The Economist, 2001). This in turn will impact on colleges and universities, who will need to develop new ways of delivering knowledge.

To conclude, profound transformations in the skill base will continue to take place as a result of the move towards a knowledge economy. These will include a renewed and intense focus on traditional skills such as critical thinking and creativity, as well as range of new skills to be mastered, particularly in technology and information management. These changes will ultimately also mean dramatic

changes to the education system, from one which educates youth to one that caters for the entire workforce, young and old.

698 words

Sample 2B

Worldwide, workforces are changing as their economies undergo restructuring. In developed countries, there has been a noticeable shift away from manual and low-skilled work towards a knowledge-based economy requiring a high degree of specialised knowledge and technical skill (The Economist, 2001), and this shift is predicted to accelerate. However, while the structure of the workforce has changed, many of the skills and attributes that employers consider desirable remain surprisingly unchanged. This is because vocational expertise generally remains most important to employers, and because, with some exceptions, the generic and interpersonal skills seen as necessary in the knowledge economy have long been features of competent workers.

Excellence in work has always been a basic requirement. All the traditional manual crafts – tailoring, dressmaking, or shoemaking – demand a high degree of expertise. Success in every kind of work – whether a traditional craft like dressmaking or a contemporary one like website design – demands technical competence. It is therefore not surprising that, among surveyed employers, vocational skills are among the most valued attributes (Rayner and Papakonstantinou, 2015). Trilling and Fardel (cited in Pompa, 2015) emphasise that technical skills should be based on core subjects such as reading, languages, mathematics, economics, science, geography, arts, history and civics, a fairly traditional curriculum. At the university level, Sydney University (2019) gives "deep disciplinary expertise" as the first of its nine graduate qualities. One difference today is the requirement for skills such as financial, health and environmental literacies that cross disciplinary boundaries (Pompa, 2015) and for interdisciplinary research generally.

The generic skills which are commonly mentioned as desirable in the worker of the future are also not as new as they seem. These include critical thinking and problem-solving (Pompa, 2015; Rayner and Papakonstantinou, 2015; Andews, 2015; University of Sydney, 2019); creativity, (UNESCO, n.d.; Pompa, 2015).It seems unfair to associate these skills with 'knowledge work' only. All but the most routine jobs require some degree of critical thinking. Tradespeople – plumbers, electricians, cabinet makers – need to solve problems on a daily basis and the most competent often come up with innovative solutions. Farmers, sometimes without the most basic education, possess a great deal of knowledge about soils, seasons, livestock and horticulture, which they use to think and act creatively and critically.

Ignoring this, and confining creativity and critical thinking to university educated professionals only, is elitist thinking.

The generic attributes and interpersonal skills and behaviours that will be increasingly important in the knowledge economy include 'perseverance, resourcefulness, empathy and tolerance' (UNESCO); collaboration, (Rayner & Papakonstantinou, 2015; Pompa, 2015), and flexibility, planning and organisational skills (Rayner & Papakonstantinou). Again, it is hard to see that these add anything revolutionary to the skill base. These have long been qualities that employers and customers have sought in every kind of worker. The changing demographics of the workforce – its multicultural character – have raised the value of cultural competence (University of Sydney), and the growing emphasis on teamwork in knowledge industries may explain the emphasis on collaboration, but in some sectors of the old economy –shipping, for example - these have also been important.

The skill base of the workforce of the future may not, therefore, be as radically different as supposed. Jobs may come and go but the demand for vocational expertise is perennial, and is echoed by both employers and educators. The transferable generic skills, notably critical thinking and problem solving, have never been unique to knowledge work, and will continue to distinguish competent workers in every field. The same is true for the personal and interpersonal attributes that foster productive and harmonious workplaces: empathy, collaboration, and communicative skills. These were as necessary in the field, factory and cargo ship as they are in today's high-tech industries.

(612 words)

Sample 2A: Use this space to create your text map

Sample 2B: Use this space to create your text map

Part 2: Joint writing

Work together to write an answer to the question on Canvas 

1. Produce a text map or other plan identifying the key functions in your answer
2. Add sources to your text map where appropriate– check the source to find the original information and think carefully about how you will paraphrase it to include it in your text
3. Make sure you use old-new information connections to help you establish chains of cause and effect relationships where appropriate

Set up a google doc for this task and give your teacher access.

You may need to finish your writing for homework. If so, you can continue to work together on your google doc.

Wk 7 Joint writing: Evaluate your response

On Canvas, you will find the rubric that is used to assess your writing for this task.

Use the rubric to evaluate your writing (or the writing of another group). Follow your teacher's instructions.

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