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Teacher - summary & response

Text: Adapted text from Stanford university

One Hundred Year Study on Artificial Intelligence (AI100). *Stanford University Journal*. Retrieved February 1, 2016 from https://ai100.stanford.edu.

Lesson

- Discuss the title: 'Artificial intelligence and the future'
- Create a discussion, students write key ideas
- Go over key summary skills / response skills (back of this document)

Supported reading

1. Give out text – ask students to read and highlight key main ideas of each paragraph (10-15 mins)- put ideas on board (use summary points answer sheet)
2. Ask students to highlight main support for each idea (2-3 points only per paragraph)
3. Feedback – put on board
4. Students write summary using ideas (30mins)
5. Give out model answer to compare / take in and mark
6. Discuss how to write a response and in groups ask students to discuss parts of the text they agree / disagree with and why? Put ideas on board.
7. Encourage basic structure and language – two significant points…
8. Students write response (30 minutes) – After give out model answer / or take in & mark.

Tests

Lesson#1: [easy] ***✶✶ [B2/C1]

1. Give out text a week /day before the test – students read, check vocabulary and meaning.
2. Test day – give out a new copy of text with the summary & response question
3. Set 1hr 30min to read text and write the summary and response
4. The summary – only one paragraph (200-250 words) / the response – only one paragraph (150 words)
5. Feedback[1]: take in and mark (must achieve 4 key points and 4 support points)- [use correction code*]
6. Feedback[2]: give out key points & model answer

Correction code*: www.academic-englishuk/error-correction

Lesson #2: [hard] ****✶ [C1]

1. Set 1hr 30min to read text and write the summary/response
2. The summary – only one paragraph (200-250 words) / the response – only one paragraph (150 words)
3. Feedback[1]: take in and mark (must achieve 4 key points and 4 support points)- [use correction code*]
4. Feedback[2]: give out key points & model answer

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One Hundred Year Study on Artificial Intelligence (AI100)

Authors: Arthur Stone et al. Stanford University, August 1, 2016.

A.I Definition

 "Artificial Intelligence (A.I) is the activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment". (Nilsson, 2010)

The frightening, futurist portrayals of Artificial Intelligence that dominate films and novels, and shape the popular imagination, are generally fictional. In reality, A.I is already changing our daily lives, almost entirely in ways that improve human health, safety, and productivity. Unlike in the movies, there is no race of superhuman robots on the horizon or probably even possible. And while the potential to abuse A.I technologies must be acknowledged and addressed, their greater potential is, among other aspects, to make driving safer, help children learn, and extend and enhance people's lives. In fact, beneficial A.I applications in schools, homes, and hospitals are already growing at an accelerated pace. Major research universities devote departments to A.I studies, and technology companies such as Apple, Facebook, Google, IBM, and Microsoft spend heavily to explore A.I applications they regard as critical to their futures. Even Hollywood uses A.I technologies to bring its dystopian A.I fantasies to the screen.

Innovations relying on computer-based vision, speech recognition, and Natural Language Processing have driven these changes, as have concurrent scientific and technological advances in related fields. A.I is also changing how people interact with technology. Many people have already grown accustomed to touching and talking to their smart phones. People's future relationships with machines will become ever more nuanced, fluid, and personalized as A.I systems learn to adapt to individual personalities and goals. These AI applications will help monitor people's well-being, alert them to risks ahead, and deliver services when needed or wanted. For example, in a mere fifteen years A.I applications are likely to transform transportation toward self-driving vehicles, home/service reports using cloud based machine learning and healthcare with personal monitoring devices. This alone is starting to reconfigure our understanding of technology and the urban landscape.

As A.I continues to deliver important benefits, it also raises important ethical and social issues. Robots and other A.I technologies have already begun to displace jobs in some sectors. As a society, we are now at a crucial juncture in determining how to deploy AI-based technologies in ways that promote, not hinder, democratic values such as freedom, equality, and transparency. For individuals, the quality of the lives we lead and how our contributions are valued are likely to shift gradually, but markedly. There is the possibility that there will be growth in unemployment, politics will have to evolve and wealth distribution may become even more disproportionate. There is even the prospect that A.I could create an arms race amongst the top countries of the world (Davis, 2016). Over the next several years, A.I research, systems development, and social and regulatory frameworks will need to shape how the benefits of A.I are weighed against its costs, securities and risks, and how broadly these benefits are spread.

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It is vitally important to note the darker side of A.I. Sceptics of A.I argue that A.I researchers are not fully aware of the consequences that 'general intelligence'; a flexibility across multiple domains in machines, could hold (Johnston et al, 2015). They claim that once we engage in building machines smarter than we are, the inevitable outcome is that these machines will out think us. Godley (2014) defines this as 'intelligence explosion' and highlights such a phenomenon is highly credible and reasonable. After all, within the spectrum of intelligence, a super-intelligent A.I machine using electronic rather than biochemical circuitry could function one million times faster than those that built it. Its unprecedented ability of intelligence will be unfathomable and it will definitely see the human race as an inhibiting factor (ibid). Though, this concept seems science-fiction in nature, based on Harris' (2016) A.I developmental assumptions, this holds credibility and needs to be seriously addressed.

Overall, the measure of success for A.I applications is the value they create for human lives. In that light, they should be designed to enable people to understand AI systems successfully, participate in their use, and build their trust. Public policies should help ease society's adaptation to A.I applications, extend their benefits, and mitigate their inevitable errors and failures worldwide. Debate about how A.I is deployed, including contemporary concerns about how privacy is protected and the future implications of A.I, should be encouraged. Given the speed with which A.I technologies are being realized, the Study Panel recommends that all layers of government acquire technical expertise in A.I. Further, research on the fairness, security, privacy, and societal implications of AI systems should be encouraged by removing impediments and increasing private and public spending to support it.

Article source:

Stone, et al. (2016). One Hundred Year Study on Artificial Intelligence (AI100). *Stanford University Journal*. Retrieved February 1, 2016 from https://ai100.stanford.edu.

Definition source:
Nils J. Nilsson, (2010). *The Quest for Artificial Intelligence: A History of Ideas and Achievements.* Cambridge: Cambridge University Press.

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Reading and writing practice

Part A (200-250 words)

Summarise in your own words the main points and significant supporting detail in The Stanford University article on the topic of:

One Hundred Year Study on Artificial Intelligence (AI100)

Part B (100 – 150 words)

Critically respond to two points from your summary in Part A. Support your view with your own ideas.

Key points:

Do not copy - paraphrasing

Use an academic style

Use academic vocabulary

Use reference verbs and correct in-text citations

Response Language / critical evaluation language

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Notes:

Part A: Summary (200 – 250 words)

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One Hundred Year Study on Artificial Intelligence PLAN

Authors: Stone et al. Stanford University, August 1, 2016,

Global summary	
P1 main idea:	
	Response
P2 main idea:	
	Response
P3 main idea:	
	Response
P4: main idea:	
	Response
P5: main idea:	
	Response

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One Hundred Year Study on Artificial Intelligence Key Points

Global summary:

- AI is changing our lives,
- two key areas of ethical and social concerns and the over-riding futuristic consequences.
- More public consultation, policies and research will provide trust.

P1: AI changing our lives / has great potential

- Beneficial applications – schools, hospitals, homes
- Tech companies = major research

P2: Technology advancement

- Computer-based vision, speech recognition, natural language processing
- Adaptation to personalities – risk analysis and delivery services
- 15 years-time – transport, home and health service changes

P3: Ethical and social questions

- How AI can promote society's values?
- Changes to unemployment, politics and wealth.
- Arms race (Davis, 2016)
- Benefits need to be measured

P4: Futuristic consequences

- General intelligence and intelligence explosion (Godley, 2014)
- The spectrum of intelligence / 1m faster
- Evidence in Ai development

P5: Public policies, mitigation and further research needed.

- Measure success in value
- Build trust, failures and errors.
- Speed of AI development – governments act quickly.
- Security, privacy and safety research

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One Hundred Year Study on Artificial Intelligence Summary

According to Stone et al. (2016), developments in artificial intelligence can be of significant benefit to society, if the valid concerns can be addressed. The article points out that despite the negative portrayal of AI in the media, it is already altering daily life for the better. The application of technology in schools, homes, and hospitals is providing real benefits and major research into AI by universities and private companies will serve to accelerate the process. The relationship people have with AI is also changing and the author states that it will become more personalised as we begin to use AI for healthcare monitoring, delivering services and even self-driving vehicles. However, as AI develops, there will be a need for regulation to deal with possible ethical and social problems. The article claims that there will be a growth in unemployment and a widening gap in wealth inequality as AI displaces workers. Davis (2016) puts forward the notion that an arms race between nations is possible, and there will be a gradual change in how we live our lives. Sceptics are calling for AI researchers to consider the effects of 'general intelligence' (Johnston et al, 2015) in AI, as the machines would be capable of functioning a million times faster than people and as a consequence possibly question what human's represent. Finally, the author stresses the need for cooperation and understanding in AI development to ensure the public benefit. Governments need to gain more expertise in the field and develop public policy that tackles the possible implications.

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One Hundred Year Study on Artificial Intelligence Response

The author points out that AI could lead to wide scale unemployment and wealth inequality. It seems clear from this that AI developments will benefit companies more that individuals. To solve this issue, governments could attempt to tax AI usage and use this revenue to increase state benefits and provide training for those affected. This measure may reduce the negative economic effects of AI implementation in the workplace. The article also calls on governments to take action in relation to AI development. This seems to be overly-optimistic as governments generally tend to be reactionary when dealing with changes in society. This can be seen from the development of cyber-crime, which was not predicted when the internet developed. Therefore, the responsibility should be shared with the AI researchers, who are better placed to identify possible ramifications of their products.

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Summary Writing

How to write a summary…

Take notes:

- **In-text reference**

- **Paragraphs: main points / key ideas** (take notes)

- **Supporting points** (key support for main ideas)

- **NO Examples**

- **NO dates** (Basic overviews)

- **NO data** (basic overviews)

- **Decide what is important – be specific**

Writing:

- **According to (source)**… *According to Smith (2017),*

- **Linking ideas:** the author also suggests, another point discussed by the author is….

- **Use key terms** (*Higher Education, Climate Change, Government policy, Genetics*)

- **Paraphrase / rewrite ideas**

- **Check / edit**

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Response Structure

Topic sentence	There are two significant points emphasised / claimed / suggested by … (author & date)
The first point	The first most important point is the … [include the point from the text]
Your response / view	This argument holds validity. In India...
The second point	The second area of importance is that…
Your response / view	This view lacks credibility to a certain extent. It is true that …, however, the main beneficiary... Therefore, governments should provide grants.

Support Language

It could be argued that / it seems that

This point holds validity…

It is true up to a certain extent…

It is reasonably credible in that…

This is a noteworthy point as…

 The writers correctly identify an important point which is….

A clear strength of this point is that..

Against Language

One major criticism/drawback with/of this (view) is…

This concept is possibly inaccurate because…

One flaw in this point is that… / One of the limitations is...

The key/main problem with this is…

Although this article contains overwhelming/convincing/compelling evidence, there is one/two point/s that warrant/s further discussion.

This appears to be true to a certain extent; however,…

The argument that the UK economy will be stronger after Brexit is irrational/illogical because…