



**Philosophical Enquiry for KS4**

**Big Data, Big Decisions**

The Makeit4Me App: Should we use big data for big decisions?

<p><b>Philosophical Content</b></p>	<p><b>Possible Concepts</b></p> <ul style="list-style-type: none"> <li>• EPISTEMOLOGY: Knowledge, Understanding, Deliberation, Judgment</li> <li>• ETHICS / POLITICS: Accountability, Responsibility, Transparency, Trust, Power, Privacy</li> </ul> <p><b>Example Questions</b></p> <ul style="list-style-type: none"> <li>• What kind of big decisions have you had to make in the past?</li> <li>• What kind of data (information) was useful when making those decisions? Was there any relevant data that you lacked?</li> <li>• What was the impact of possessing or lacking that information on the quality of your decision-making?</li> <li>• Is there anything else that you use to make decisions?</li> <li>• Would the Makeit4Me app have been of any use when making those decisions? Would you have made a <i>better</i> decision with that help?</li> <li>• Would you make a big (or small) decision using the Makeit4Me app?</li> <li>• Is there <i>any</i> kind of decision for which such an app would be useful?</li> <li>• Would such an app work in <i>all</i> areas of human decision making?</li> <li>• Could the app ever do better job than a human decision-maker?</li> <li>• What – if anything – can a human bring to a decision, that an app informed by big data can't?</li> <li>• How might big data be useful in societies' big decisions?</li> <li>• If big data could be used to inform decisions about education, employment, money, insurance, healthcare or criminal justice, is this something we should welcome?</li> <li>• If these decisions could be handed over to computer systems, would this be something we should welcome?</li> <li>• Should we trust decisions made by computer systems, even if we can't understand that decision-making process ourselves?</li> <li>• Should we trust decisions made by computer systems, even if the quantity and complexity of the data is such that <i>no</i> humans could understand that decision-making process?</li> <li>• Should we trust our knowledge, experience and intuition to make decisions? Are these resources more or less trustworthy than machine analysis of big data?</li> </ul>
<p><b>Philosophical Method</b></p>	<p><b>Thinking Moves</b></p> <ul style="list-style-type: none"> <li>• eXEMPLIFY instances of your decision-making in the past, PICTURE possible uses of big data, WEIGH UP the risks and benefits of the app.</li> </ul> <p><b>Facilitation Tools</b></p> <ul style="list-style-type: none"> <li>• Experience Exchange, Rank and Order,**</li> </ul>

<b>Materials</b>	<ul style="list-style-type: none"> <li>• Circle of chairs</li> <li>• Passing Pom-pom, flash cards, flip chart / white board, pens</li> <li>• Cards with decision scenarios on</li> <li>• The following video explainer on Big data might be useful: <a href="https://www.youtube.com/watch?v=eVSfJhssXUA">https://www.youtube.com/watch?v=eVSfJhssXUA</a></li> </ul>
<b>Timings</b>	<ul style="list-style-type: none"> <li>• This is a longer enquiry. Allow at least 90 minutes or break the session up over several lesson.</li> </ul>

\* This is the metacognitive language of *Thinking Moves A-Z* by **Dialogue Works**. For more info see <https://dialogueworks.co.uk/thinking-moves/> or ask us about our accredited Thinking Moves Training.

\*\* A list of this language for facilitation accompanies these resources.

<b>PREPARATION</b>		<b>20 min</b>
<b>Introductions</b>	Introduce everyone.	
<b>Ethos</b>	Where needed, recap enquiry rules and expectations.	
<b>Context</b>	<p><b>Experience Exchange</b> Considering these questions might help contextualise the session:</p> <ul style="list-style-type: none"> <li>• What kind of big decisions have you had to make in the past?</li> <li>• What kind of data (information) was useful when making those decisions? Was there any data that you lacked?</li> <li>• What was the impact of possessing or lacking that information on the quality of your decision-making?</li> <li>• Is there anything else that you use to make decisions?</li> </ul>	
<b>Exercise</b>	<p><b>Rank and Order</b> Participants should form small groups. Distribute one example of big personal decision to each group. If you prefer, they can come up with their own examples.</p> <ul style="list-style-type: none"> <li>• Deciding whether to go to University</li> <li>• Deciding which bike to buy</li> <li>• Deciding whether to accept a job offer</li> <li>• Deciding whether to go on a date</li> <li>• Deciding whether to have an operation</li> <li>• Deciding where to go on holiday</li> <li>• Deciding what to watch on Netflix</li> <li>• Deciding whether to get a puppy</li> </ul> <p>The groups should select information relevant to making their allocated decisions and then rank the five most important considerations giving reasons.</p> <ul style="list-style-type: none"> <li>• What you know about your own personality and preferences</li> <li>• Your general knowledge relevant to the decision</li> <li>• What you discover through your own specific research</li> <li>• What your intuition or gut instinct tells you</li> <li>• Advice from friends and family</li> </ul>	

	<ul style="list-style-type: none"> <li>• Advice from experts</li> <li>• Advice from strangers</li> <li>• Data on what other people have decided in similar circumstances</li> <li>• Data on the safety of the decision</li> <li>• Data on the cost the decision</li> <li>• The legality of the decision</li> <li>• The popularity of the decision</li> <li>• The results of a coin toss</li> </ul> <p>Ask: Is there anything missing? Share suggestions</p>	
<b>STIMULUS</b>		<b>5 min</b>
<b>Stimulus</b>	<p><b>The Makeit4Me App</b></p> <p>The Makeit4Me App lets you relax while your phone makes decisions for you. Whether you're choosing what to eat for lunch or choosing your life partner, the app harnesses the power of big data to reduce stress and minimise regret.</p> <p>The technology you use in everyday life is <i>already</i> collecting data about what you watch, what you buy, where you go and who you go with. Computer systems are busy processing vast quantities of complex information, spotting patterns and making predictions beyond the cognition of human beings. The Makeit4Me App simply lets users tap into the insights produced by this data and use it to enhance their own decision-making.</p> <p>Making decisions is a risky business, yet most people are forced to decide in the dark. With the Makeit4Me App you're in safer hands. Whether booking a holiday or accepting a job, the app has access to <i>all</i> the information relevant to the decision and it makes a call you can trust, every time.</p>	
<b>QUESTIONS</b>		<b>20 min</b>
<b>Quick Question</b>	<p>Try focusing the initial discussion with the following question:</p> <p><b>Would you make a decision using the Makeit4Me app?</b></p>	
<b>Question Composition</b>	<p>Working in small groups, ask the participants to compose a question that captures what they found most interesting during their discussion of the quick question.</p> <p>Move between groups questioning the questions that have been proposed. Use your group's' philosophy vocabulary to help them evaluate their proposed questions.</p> <p>For example, you might ask:</p> <ul style="list-style-type: none"> <li>• "Is there an expert who could answer this question for us?"</li> <li>• "Could we answer this question by looking in a book or on the internet?"</li> <li>• "Will the class have lots of views on this question?"</li> <li>• "Are you interested in this question?"</li> <li>• "Does the answer to this question matter?"</li> </ul>	

<b>Question Airing</b>	<p>One member of each group should write up their question on the board while another reads it out and says a little about it.</p> <p>Gently interrogate the questions helping the group uncover any questions better answered by research rather than reason and argument. Participants should defend their question, or they may decide to withdraw it. If any questions are withdrawn, make sure the class understands why.</p>	
<b>Question Selection</b>	If there is not an obvious theme that emerges, vote on the question including only those questions the group considers philosophical.	
<b>DIALOGUE</b>		<b>3 min</b>
<b>First Words</b>	Begin with a paired discussion around the chosen question.	
<b>Collecting Ideas</b>	Start the whole-group discussion by gathering a range of responses and noting them on the whiteboard.	
<b>Getting Focused</b>	Continue to facilitate the group discussion, encouraging the group to identify and explore key emerging idea(s). If they want to refocus their question at this point, they should do so.	
<b>Digging Deeper</b>	<p>If necessary, instigate a paired discussion on a particularly challenging aspect of the ideas that have emerged so far. These might include questions like:</p> <ul style="list-style-type: none"> <li>• Would such an app work in <i>all</i> areas of human decision making?</li> <li>• Could the app ever do better job than a human decision-maker?</li> <li>• What – if anything – can a human bring to a decision, that an app informed by big data can't?</li> <li>• How might big data be useful in societies' big decisions?</li> </ul>	
<b>Last words</b>	<p>Return to the question (or reiterate the new question, if there is one) and ask everyone to summarise their view.</p> <p>If time is short, invite participants to do this in small groups with feedback from two or three speakers, prioritizing those who haven't had much airtime.</p>	
<b>REFLECTION</b>		<b>10 min</b>
<b>Reflection on the Content</b>	Ask the group to identify some of the concepts they've explored during the session.	
<b>Reflection on the Method</b>	Ask the group to identify some of the Thinking Moves they've used, noting when and where they were useful.	

EXTENSION		90 min
<b>Research</b>	<p>Having considered the use of big data in personal decision making, encourage your students to research the possible uses of big data in decision making at a societal level.</p> <ul style="list-style-type: none"> <li>• How might big data be useful in societies' big decisions?</li> </ul>	
<b>Write</b>	<p>Taking one of the applications they researched, invite them to write on the following question:</p> <ul style="list-style-type: none"> <li>• If big data could be used to make decisions about (for example) education, employment, money, insurance, healthcare or criminal justice, is this something we should welcome?</li> </ul>	
<b>Discuss</b>	<p>Invite your students to facilitate their own enquiry where they discuss the same question.</p> <p>They might find the following questions helpful too:</p> <ul style="list-style-type: none"> <li>• If these decisions could be handed over to computer systems, would this be something we should welcome?</li> <li>• Should we trust decisions made by computer systems, even if we can't understand that decision-making process ourselves?</li> <li>• Should we trust decisions made by computer systems, even if the quantity and complexity of the data is such that <i>no</i> humans could understand that decision-making process?</li> <li>• Should we trust our knowledge, experience and intuition to make decisions? Are these resources more or less trustworthy than machine analysis of big data?</li> </ul>	

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