Survey: Using Explainable AI (XAI) Techniques on a Data Privacy dataset

31 responses

Publish analytics

If you are a NUS / Yale-NUS student, are you 18 years old and above?

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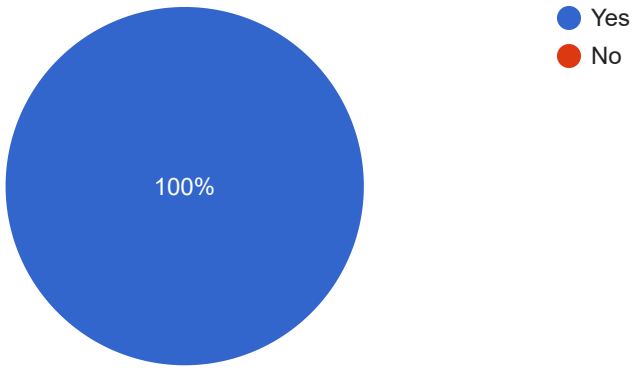
OR

If you are not a NUS student, are you above 21+ years old?

31 responses



Participant Information Sheet

I have read about the purpose of this research study, agree to participate, and understand that I can withdraw at any time.

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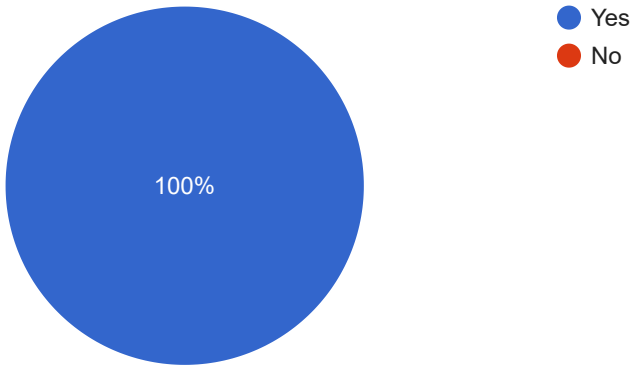
31 responses



Part 1

What is your major / prospective major?

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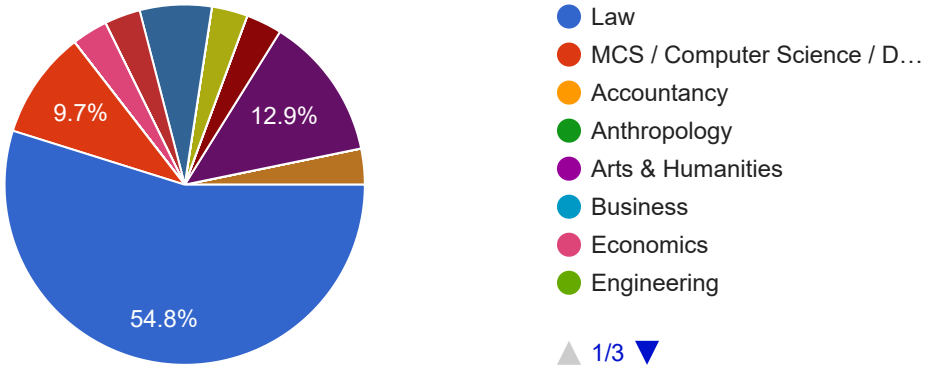
31 responses



What is your age?

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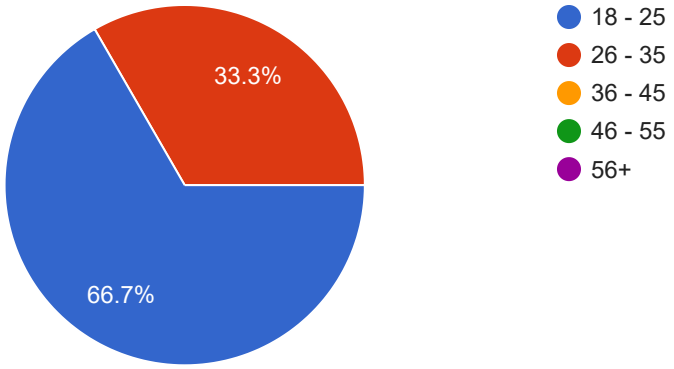
3 responses



Do you have any experience with AI / data science / programming?

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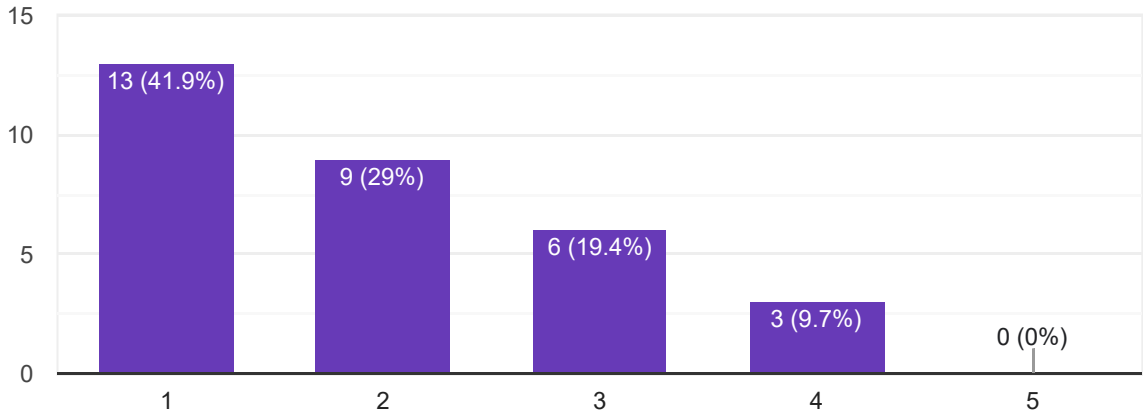
31 responses



Do you have any experience with regarding data privacy / law?

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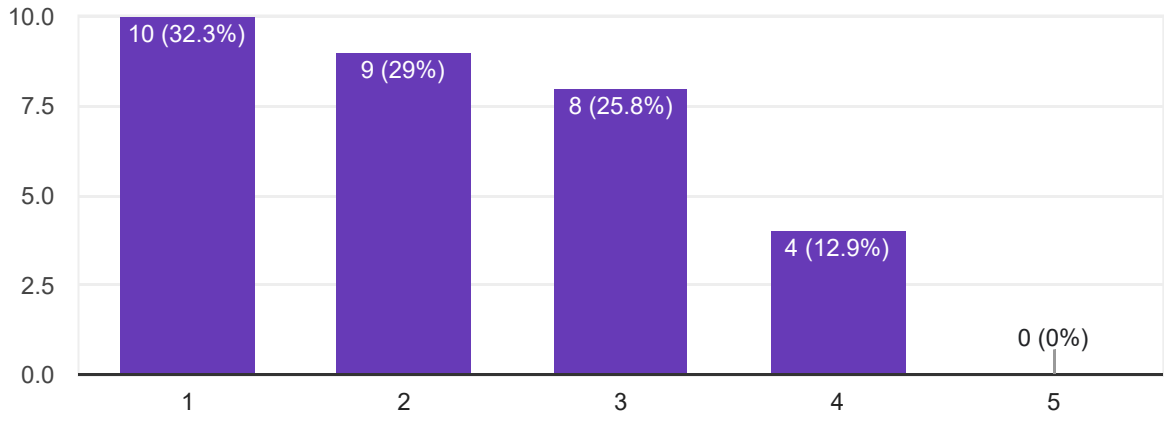
31 responses



Are you concerned about your data privacy?

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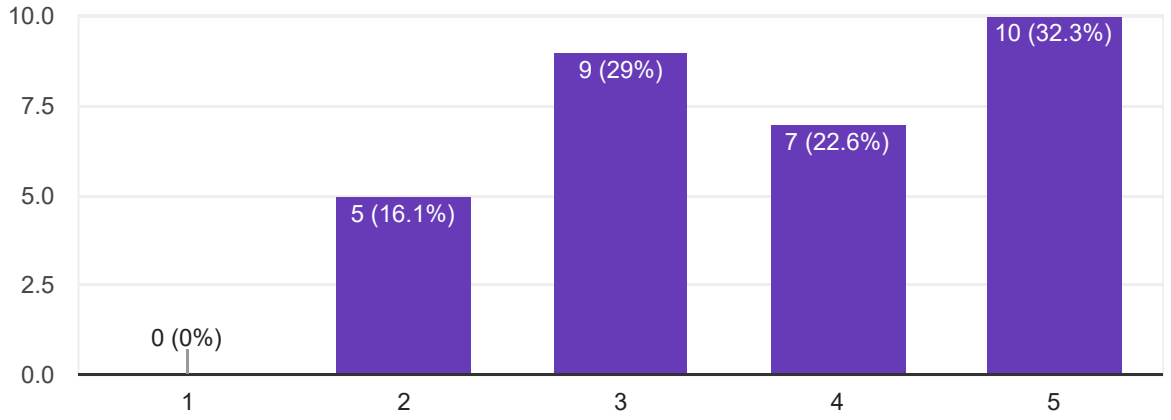
31 responses



How would you rate your capability in protecting your online data?

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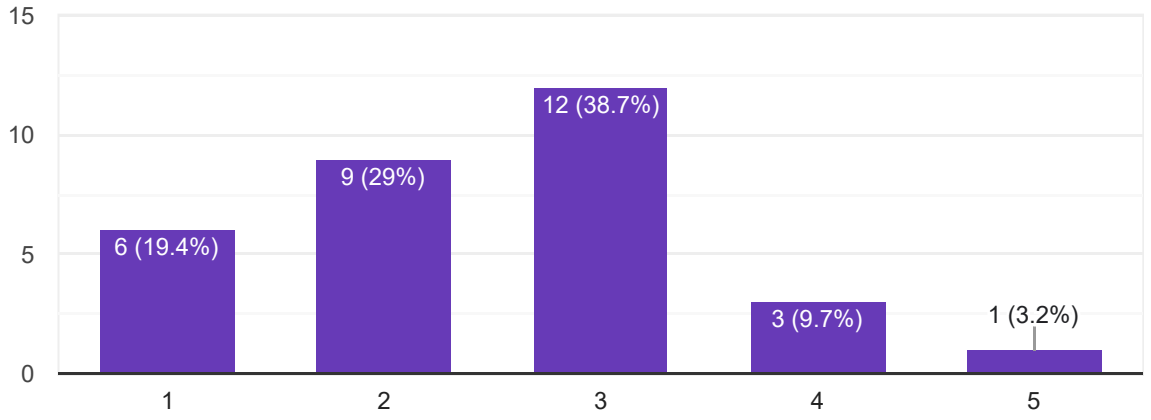
31 responses



Do you think decisions that are made by AI can be useful to society?

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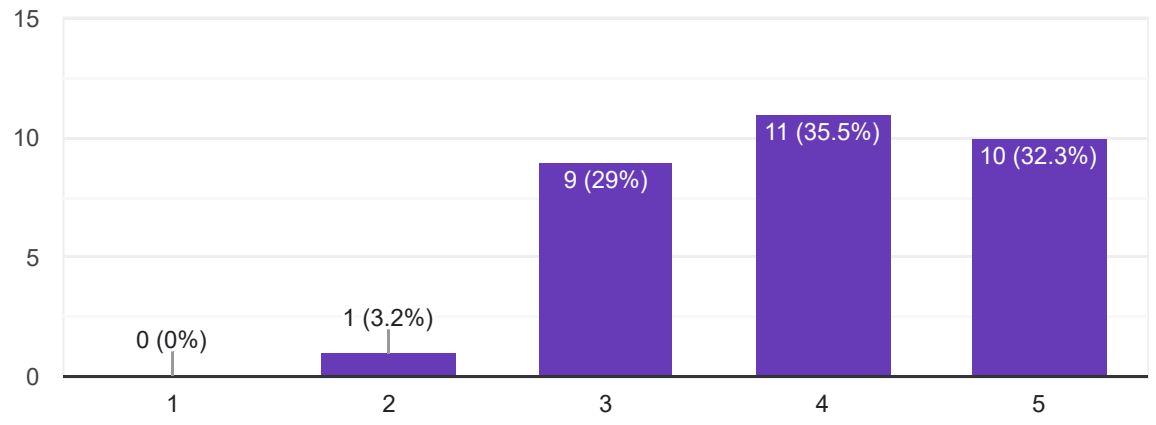
31 responses



Do you think decisions made by AI are fair?

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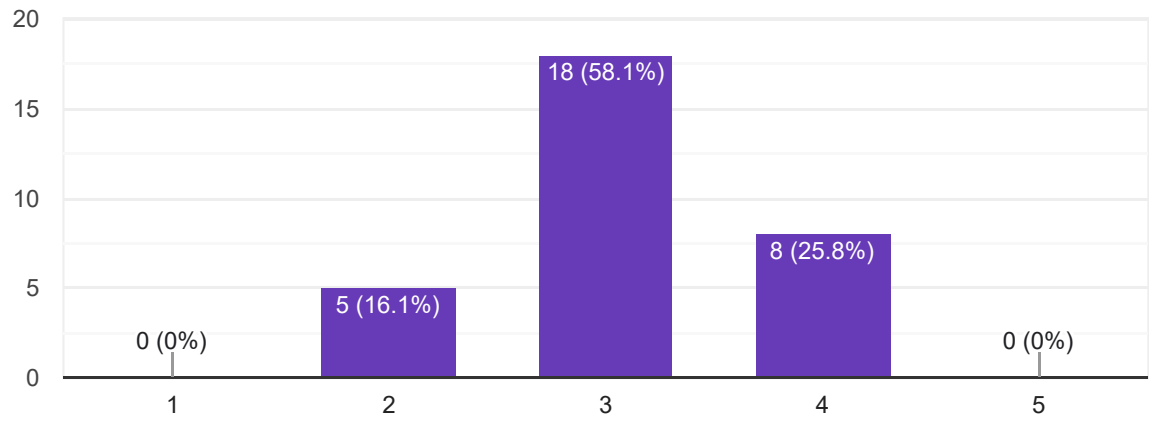
31 responses



Do you think decisions made by AI can be a risk to society?

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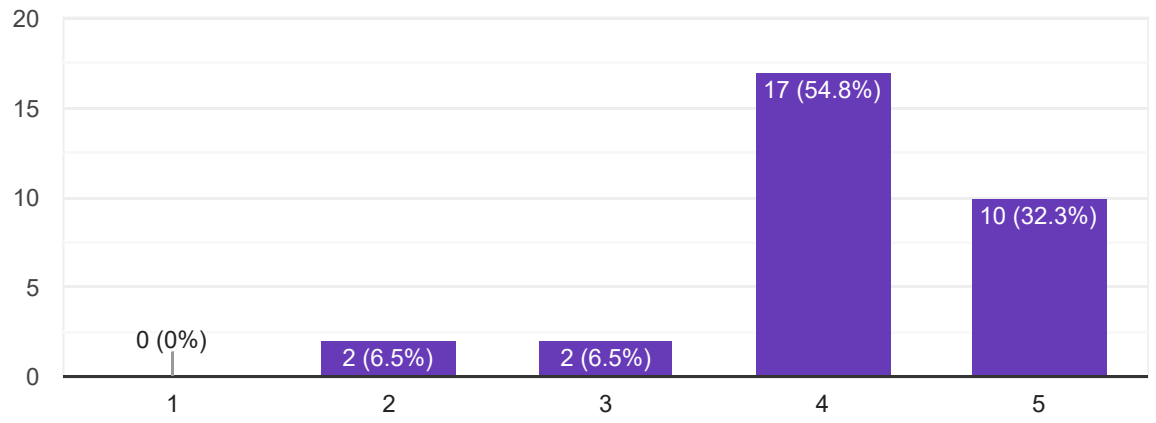
31 responses



Part 2

Please select "strongly agree" to show that you are paying attention to this question.

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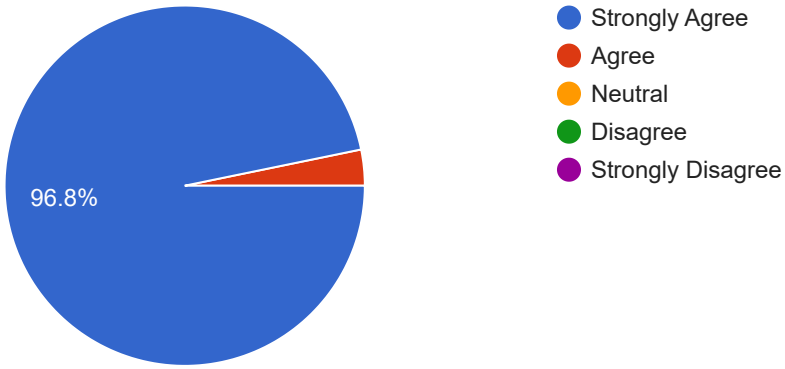
31 responses



In this section, I will describe three different contexts with similar facts that relate to the use of the abovementioned model in analysing data privacy policies.

Each context corresponds with the perspective of an app developer, a member of the Personal Data Protection Commission (PDPC), and an user of the app.

I would then ask you questions to capture how your opinions on the use of AI in decision making would differ based on these three different perspectives.

Context 1: Imagine that you are an app developer. You are developing an app that uses cookies to track user activity online. To comply with the PDPA, you know that you need to include a sentence in your app's data privacy policy that notifies and asks for users' consent to use cookies.

Since you have no knowledge of the PDPA, you use the abovementioned model to analyse a pre-drafted data privacy policy that you found online. The model informs you that there is a sentence which states that cookies are being used.

You are deciding whether to rely entirely on the model's prediction, or pay costly legal fees to confirm with your friend who is a lawyer.

If the pre-drafted data privacy policy actually does not state that cookies are being used but your app uses cookies, you could face a fine of up to $10,000 in breach of the PDPA as you would have failed to notify your users.

How far do you, as the app developer:

Think that using the model is an effective method of identifying violations of the PDPA?

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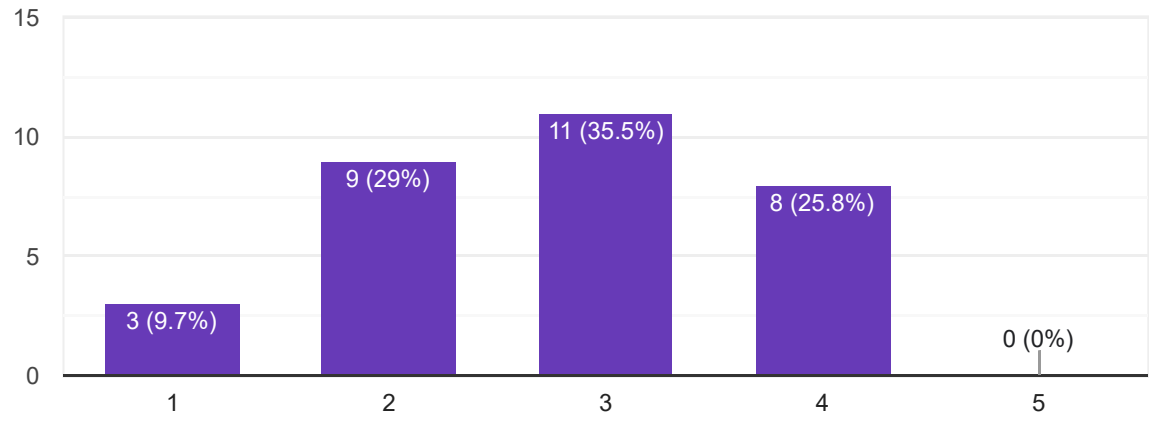

Think that using the model is a fair method of identifying violations of the PDPA?

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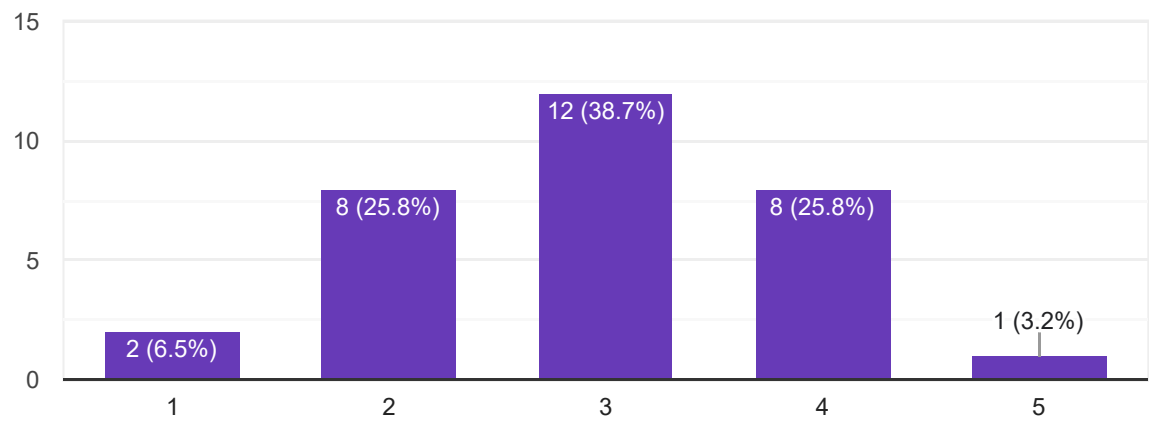

Think that using the model is a method that could be a risk to society?

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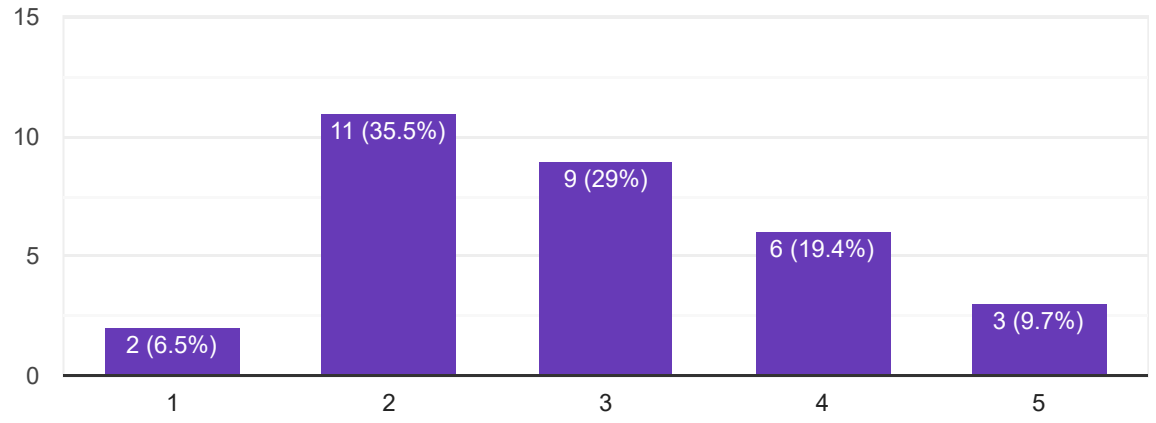

Trust the prediction made by the model?

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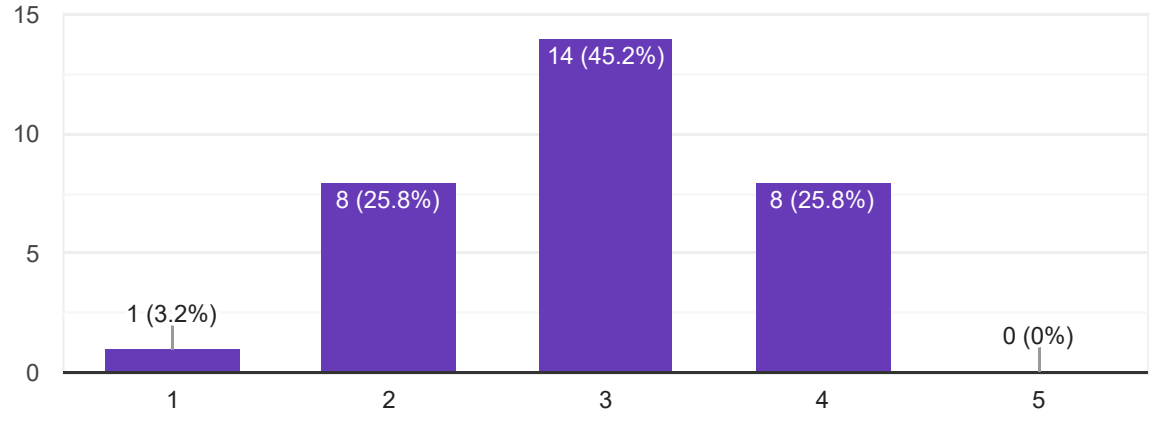
31 responses



Context 2: Imagine that you are a committee member part of the Personal Data Protection Commission (PDPC). A user of an app has informed you that an app is using cookies but has not notified its users.

Your team checks the code of the app and confirms that the app is indeed using cookies. Your team uses the abovementioned model and the model informs you that the data privacy policy does not contain any sentence that notifies its users that it uses cookies.

To increase the efficiency of the PDPC, your team is considering whether to adopt the abovementioned model to automate the analysis of data privacy policies. If this new method of analysis is adopted, the PDPC would rely entirely on the model's predictions to confirm whether app developers have breached the PDPA. The app developers would face a fine of up to $10,000 if they are found to have breached the PDPA.

How far would you, as a committee member of the PDPC:

Think that using the model is an effective method of identifying violations of the PDPA?

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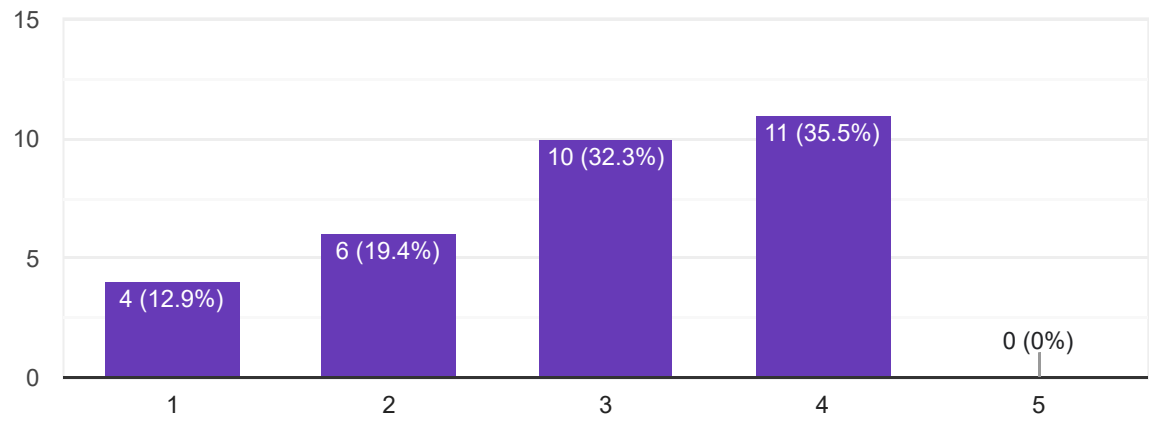

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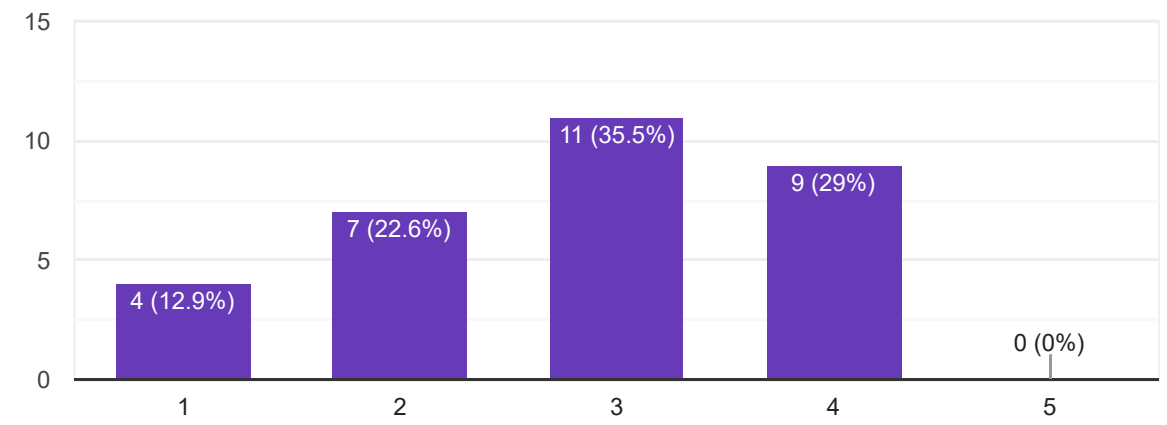

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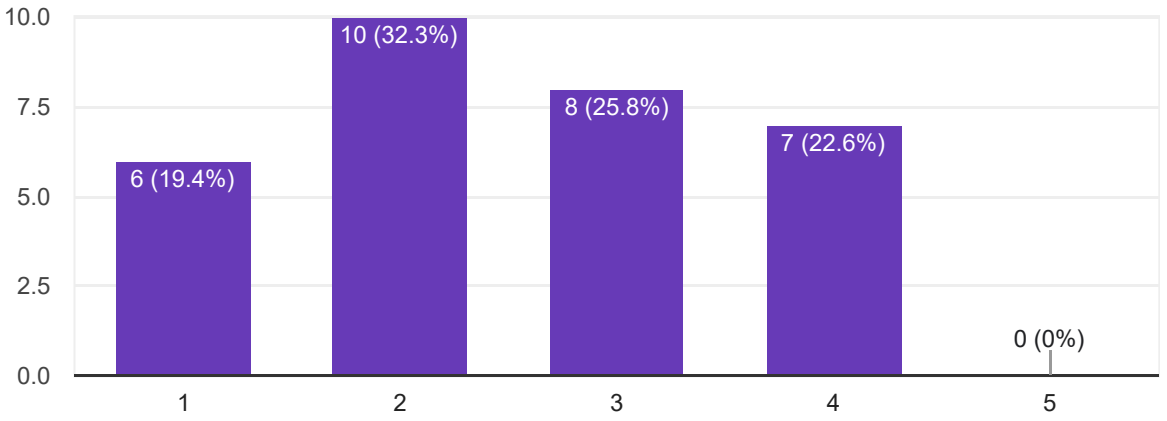

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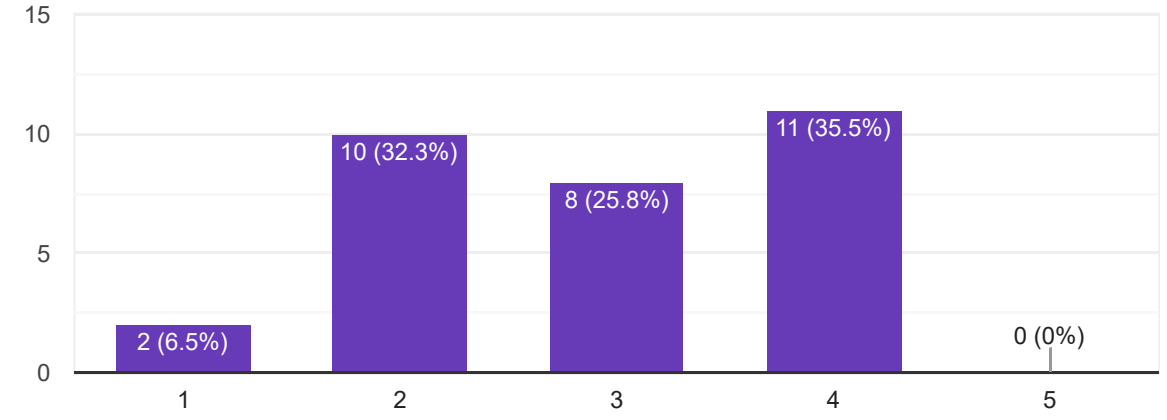

Context 3: Imagine that you are a user of an app. You read in a forum where other users allege that the app uses cookies. You decide to analyse the data privacy policy of the app using the abovementioned model and the model informs you that the data privacy policy does not contain any sentence that notifies its users that it uses cookies.

You are deciding whether to submit this prediction as the only supporting piece of evidence to the PDPC to claim that the app has used cookies without notifying you.

If the PDPC decides that the developer has indeed violated the PDPA, you could claim compensation from the app developer of up to $10,000.

How far would you, as a user of the app:

Think that using the model is an effective method of identifying violations of the PDPA?

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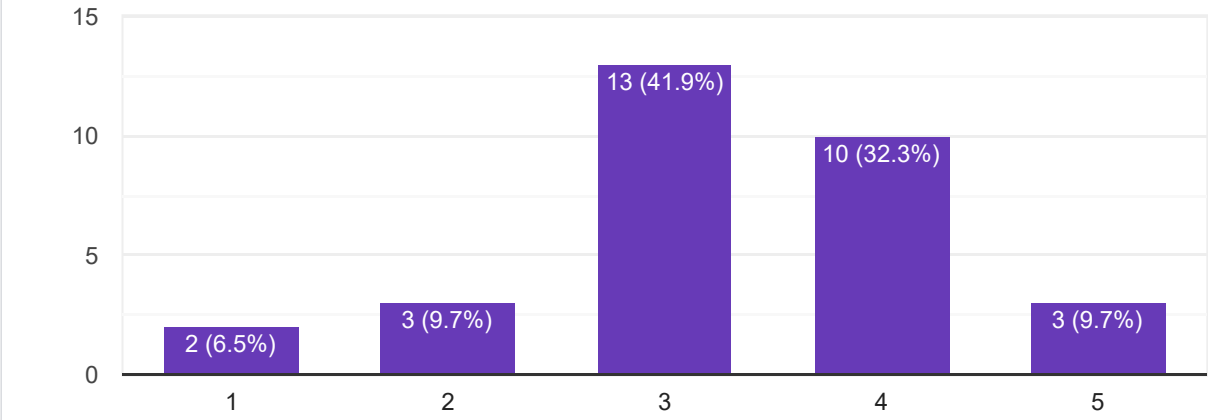
31 responses



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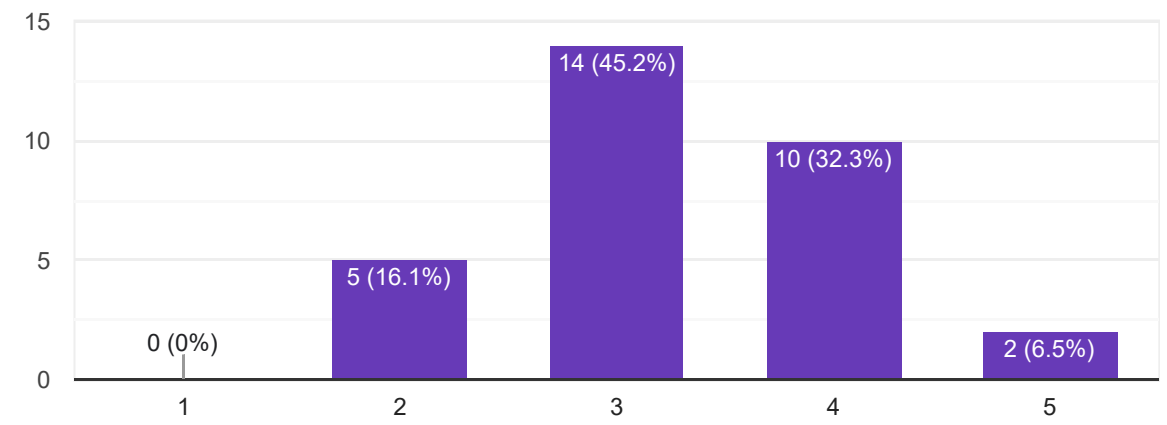

Think that using the model is a method that could be a risk to society?

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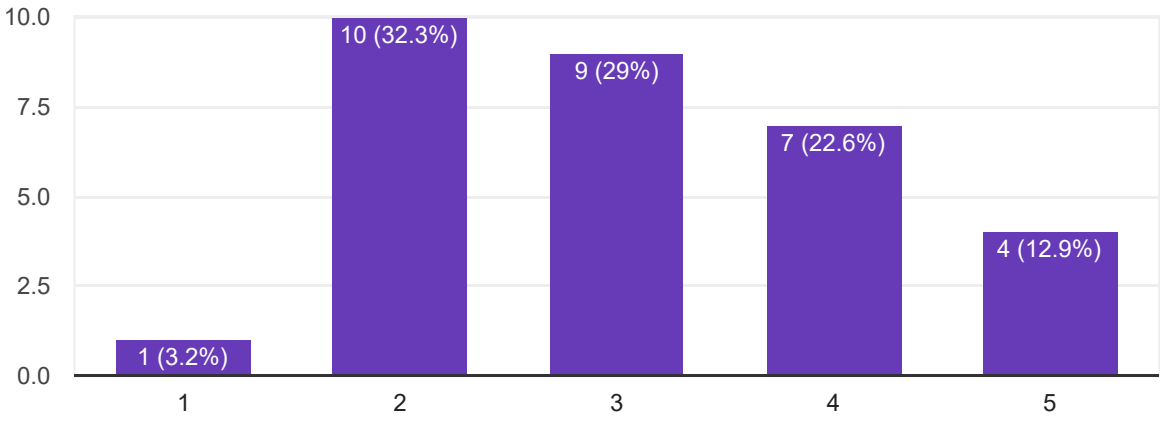

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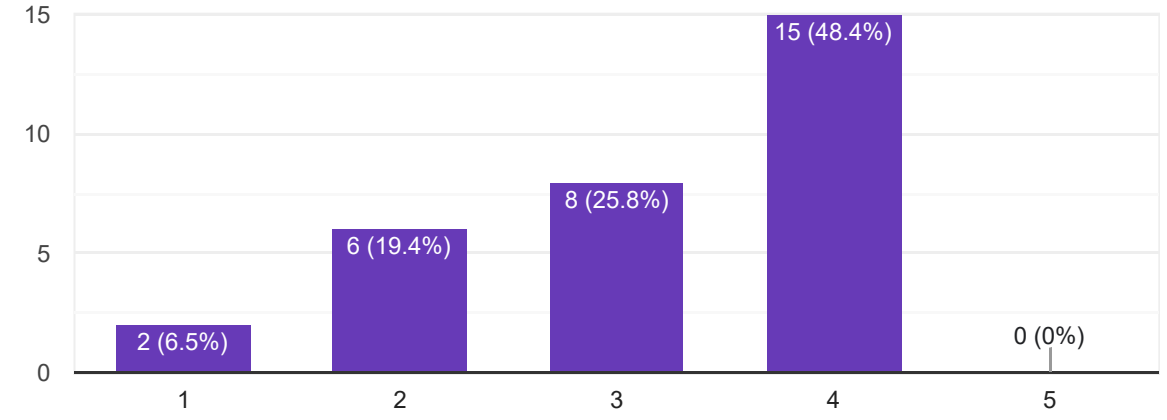

Part 3

Do you understand why the model made the prediction?

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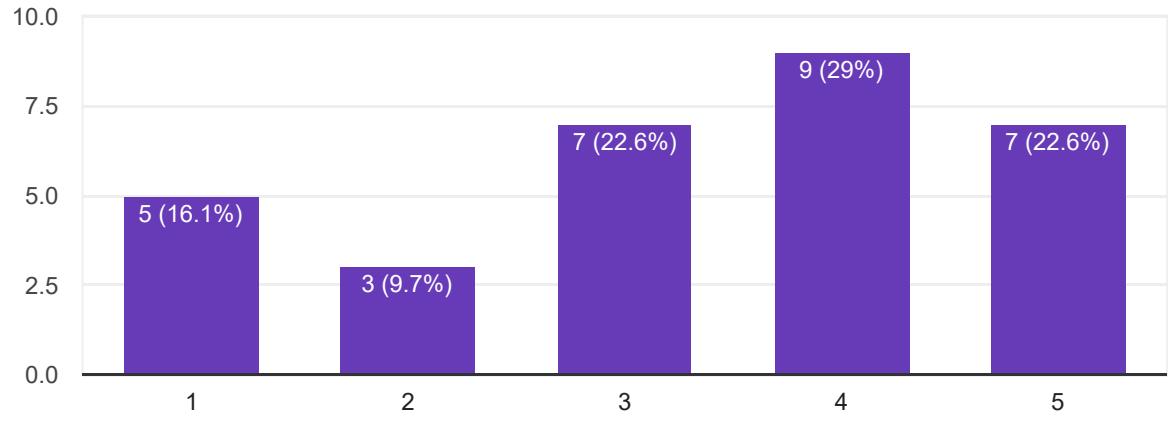
31 responses



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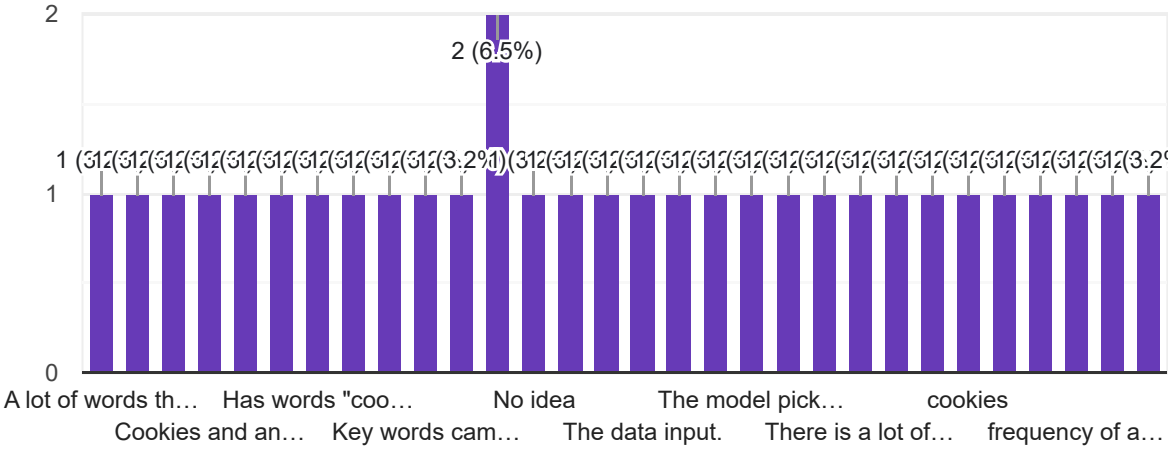

Did you find the visualisation easy to interpret?

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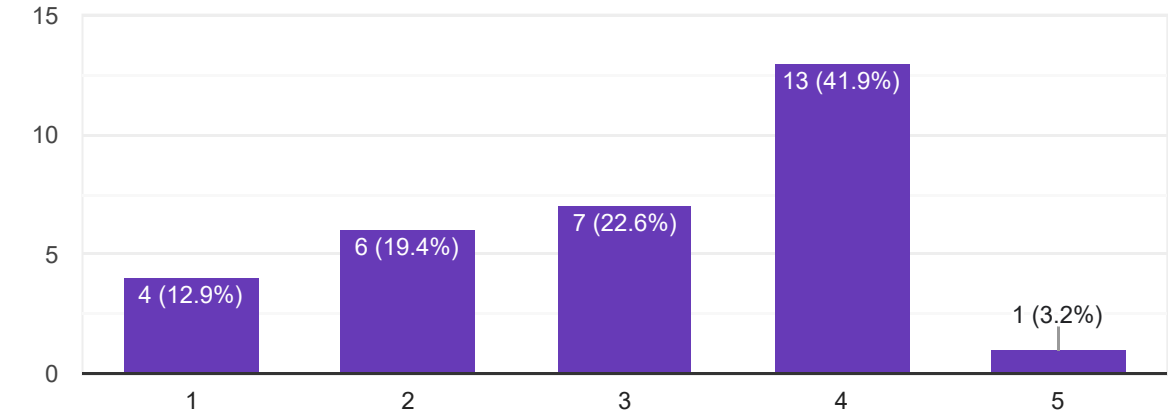
31 responses



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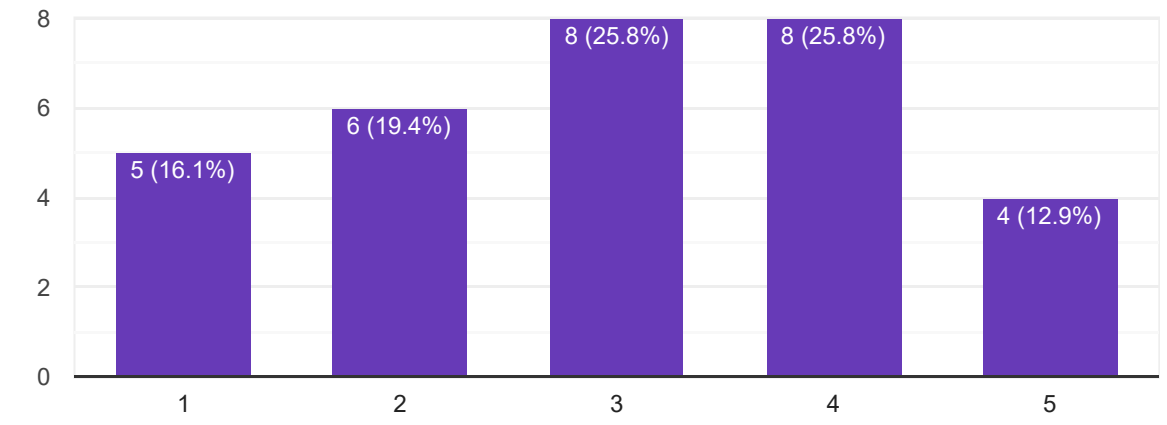

Why do you think the model made this prediction?

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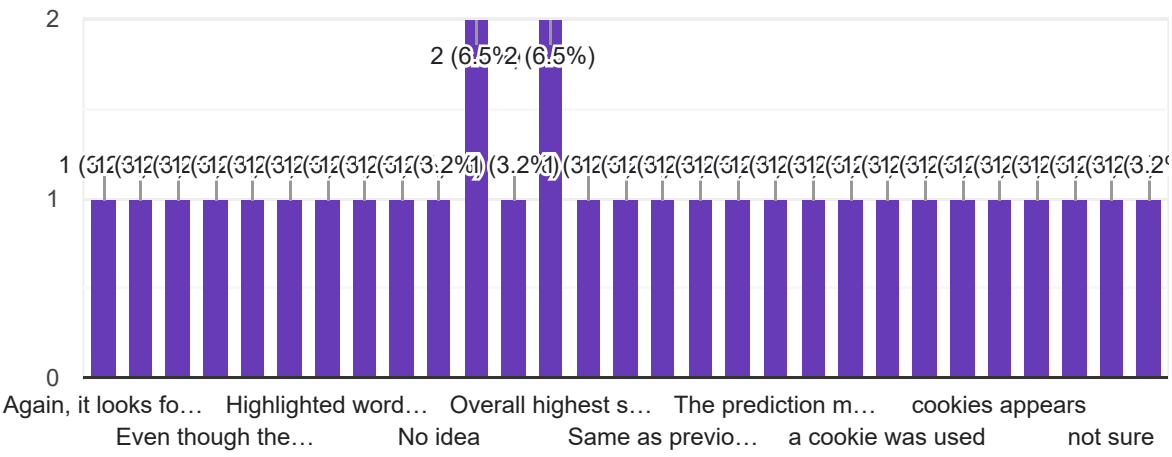

Did you find the visualisation easy to interpret?

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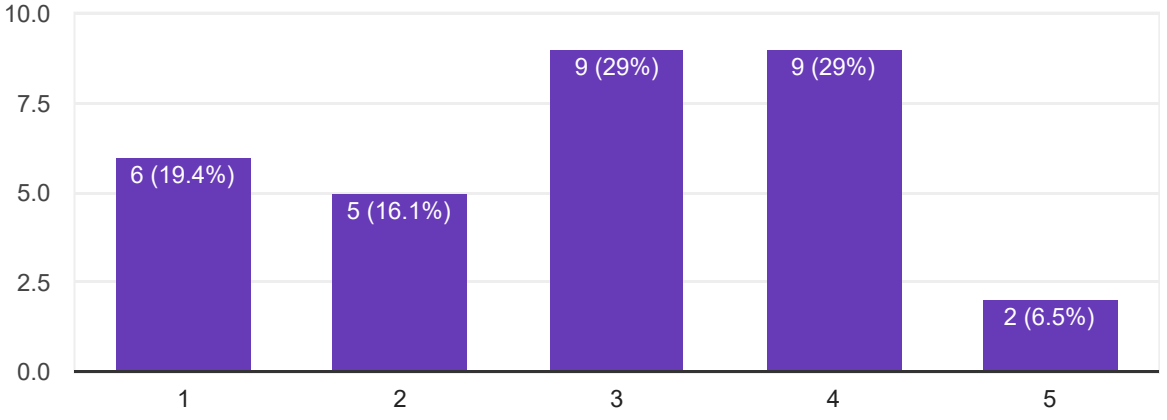
31 responses



Based on your current understanding, do you think that the sentence below would be predicted to be "Identifier_Cookie_or_Similar_Tech_1stParty"?

"We also use **tracking technologies** to keep records, store your preferences, improve our advertising, and collect Non-Identifying Information, including Device Data and information about your interaction with the Site and our Business Partners' web sites."

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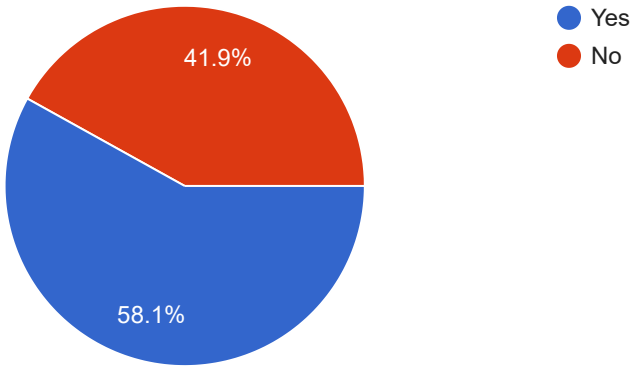
31 responses



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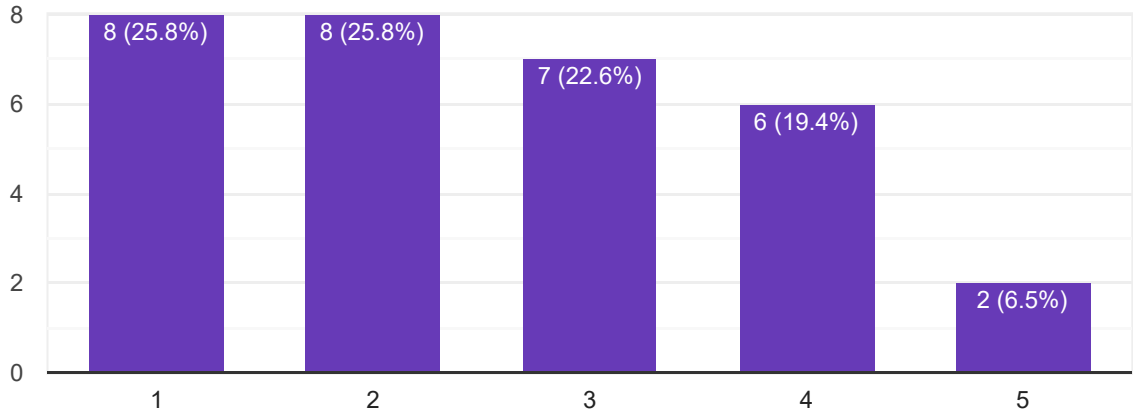

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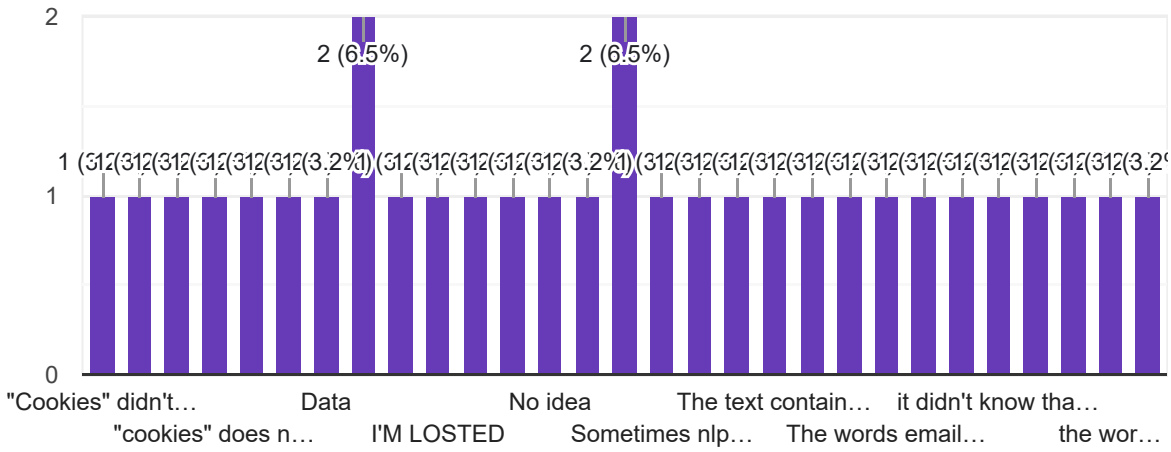

Did you find the visualisation easy to interpret?

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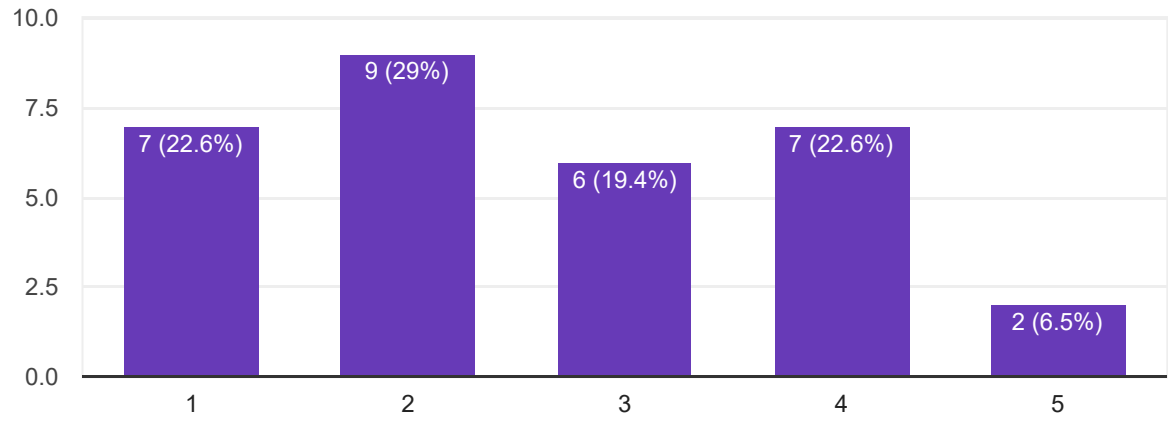

Based on your current understanding, do you think the sentence below would be predicted to be in "Identifier_Cookie_or_Similar_Tech_1stParty?"

"As explained above, you may either volunteer to us certain information (such as your **phone number**), or we may automatically collect certain information, such as through the use of your mobile device system's permissions, or through the use of cookies or similar tracking technologies."

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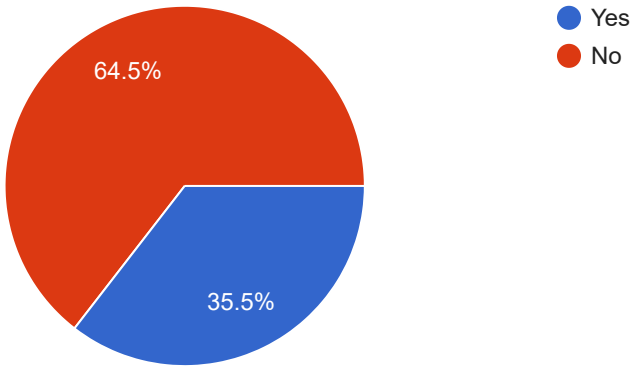
31 responses



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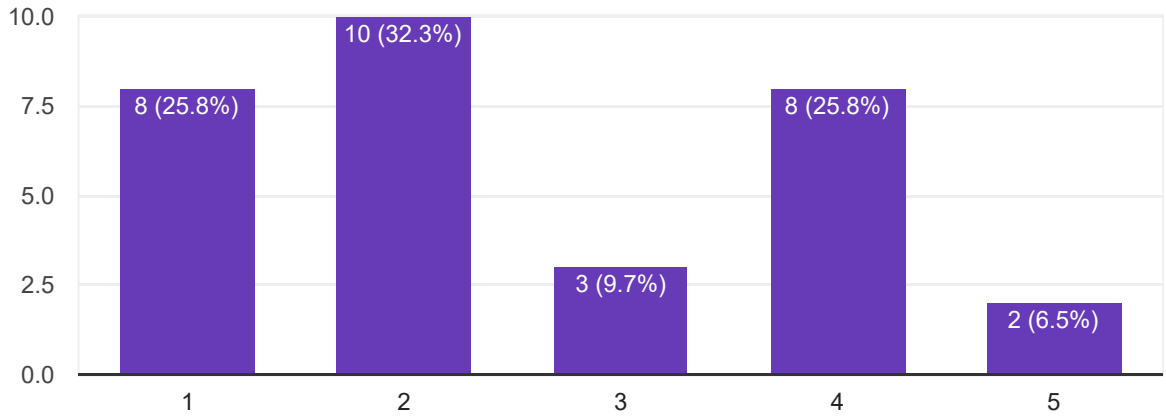

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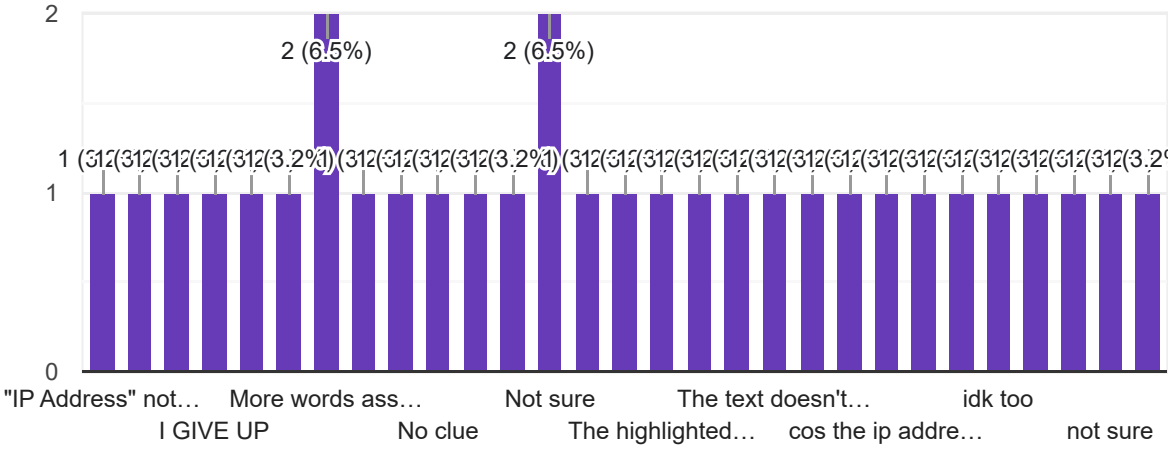

Did you find the visualisation easy to interpret?

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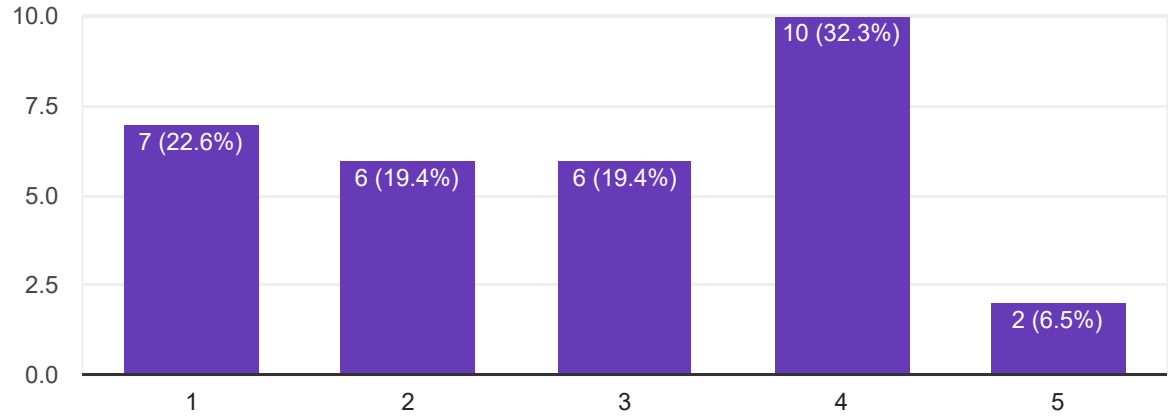

Based on your current understanding, do you think the sentence below would be predicted to be in "Identifier_Cookie_or_Similar_Tech_1stParty?"

"These **cookies and other such tracking technologies** allow the collection of data, such as your device's model, operating system and screen size, the other applications installed on your device, and information about how you use our services."

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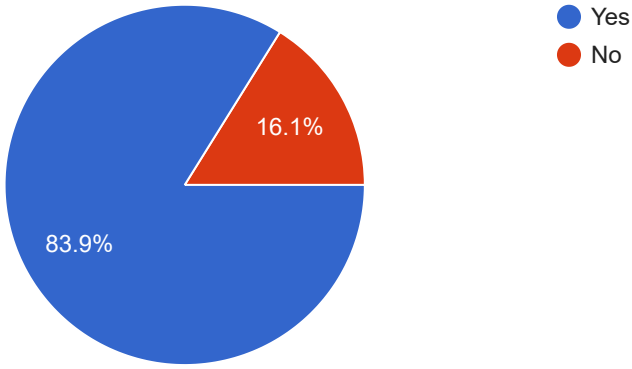
31 responses



Part 4

Which explanation did you find easier to interpret?

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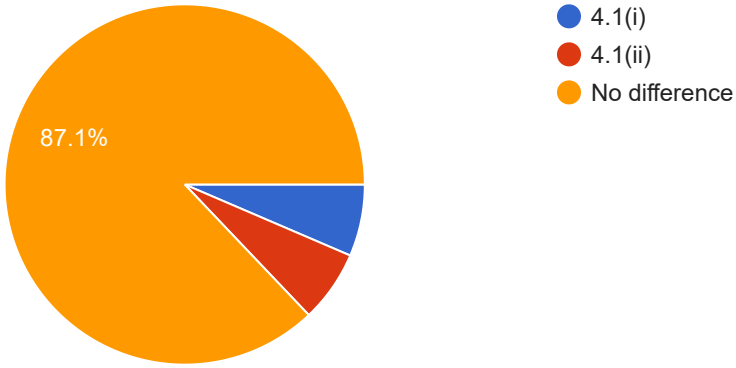
31 responses



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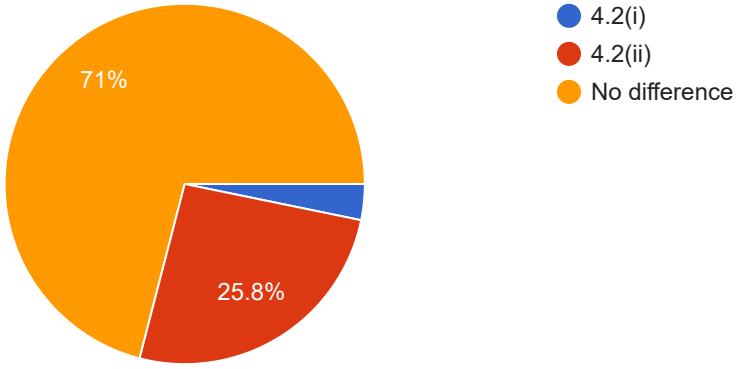

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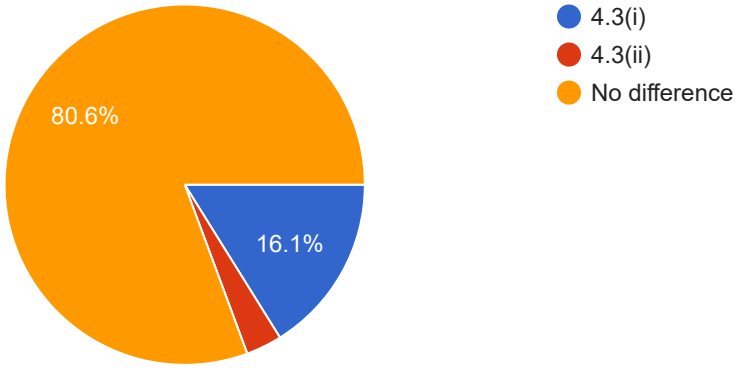

Part 5

Which explanation did you find easier to interpret?

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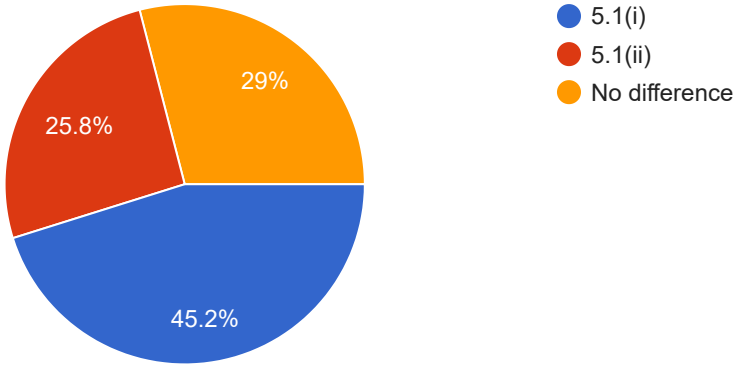
31 responses



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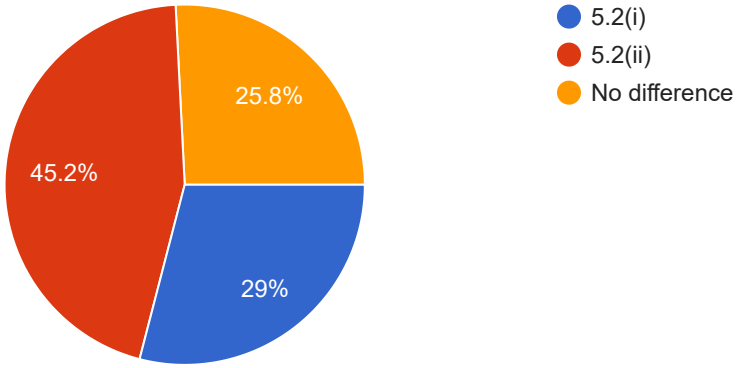

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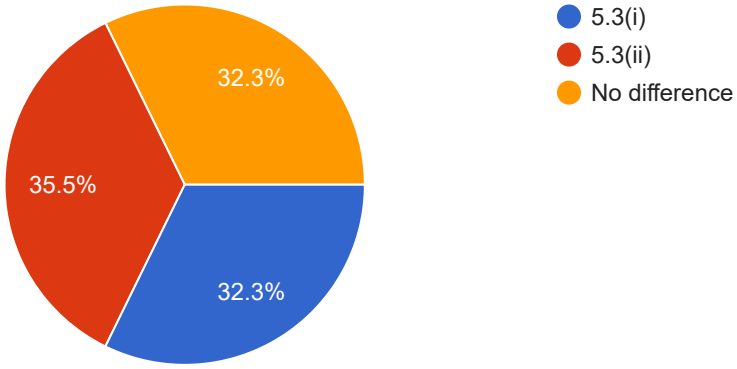

Part 6

Context 1: Imagine that you are an app developer. You are developing an app that uses cookies to track user activity online. To comply with the PDPA, you know that you need to include a sentence in your app's data privacy policy that notifies and asks for users' consent to use cookies.

Since you have no knowledge of the PDPA, you use the abovementioned model to analyse a pre-drafted data privacy policy that you found online. The model informs you that there is a sentence which states that cookies are being used.

You are deciding whether to rely entirely on the model's prediction, or pay costly legal fees to confirm with your friend who is a lawyer.

If the pre-drafted data privacy policy actually does not state that cookies are being used but your app uses cookies, you could face a fine of up to $10,000 in breach of the PDPA as you would have failed to notify your users.

How far do you, as the app developer:

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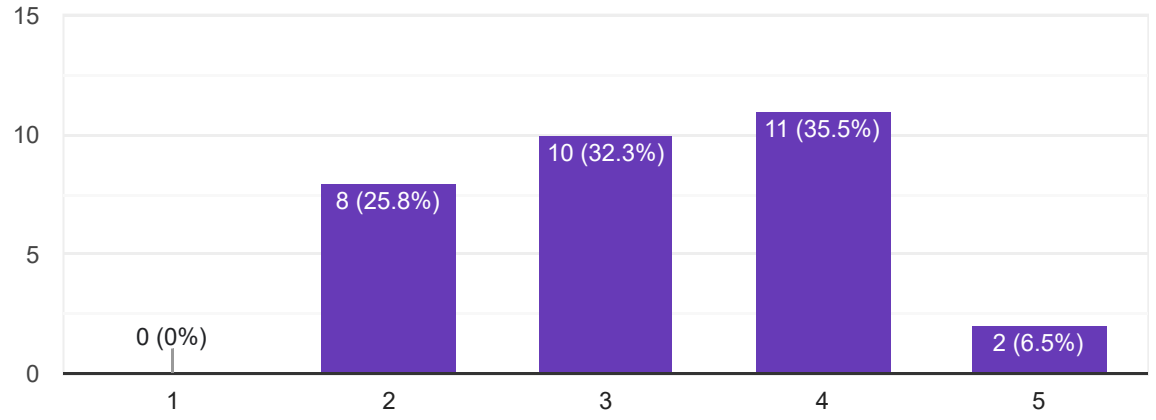
Think that using the model is an effective method of identifying violations of the PDPA?

31 responses



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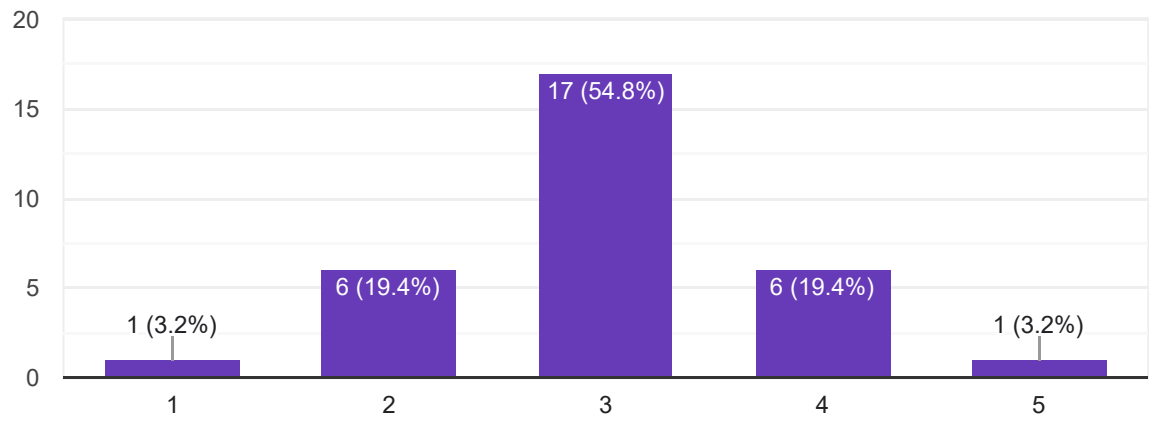
Think that using the model is a fair method of identifying violations of the PDPA?

31 responses



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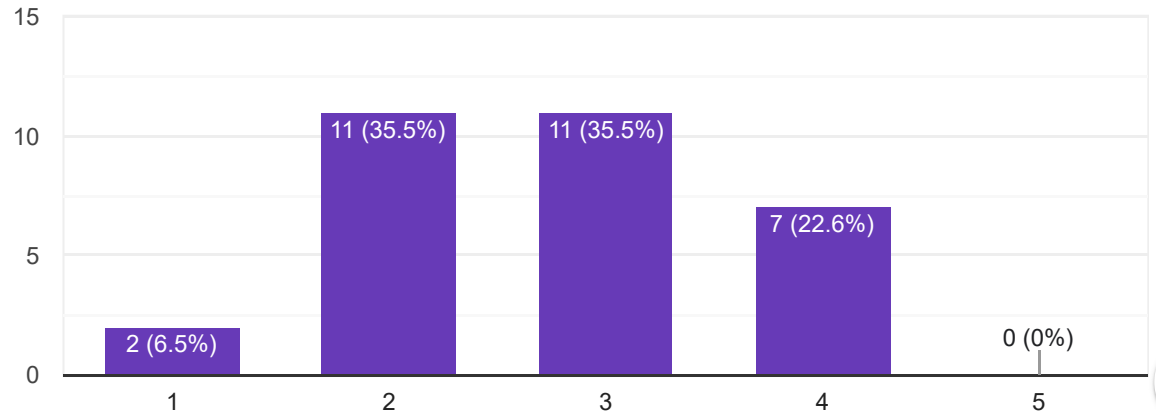
Think that using the model is a method that could be a risk to society?

31 responses



Trust the prediction made by the model?

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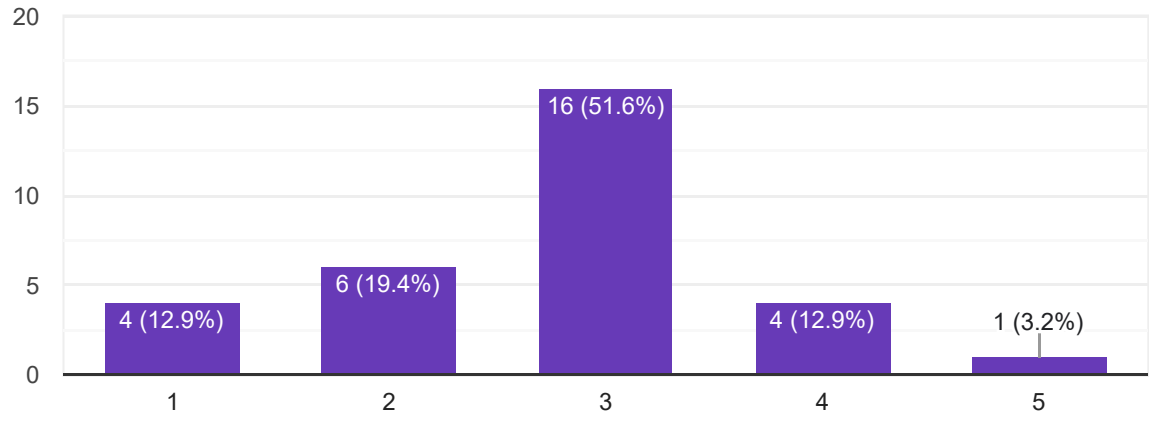
31 responses



Context 2: Imagine that you are a committee member part of the Personal Data Protection Commission (PDPC). A user of an app has informed you that an app is using cookies but has not notified its users.

Your team checks the code of the app and confirms that the app is indeed using cookies. Your team uses the abovementioned model and the model informs you that the data privacy policy does not contain any sentence that notifies its users that it uses cookies.

To increase the efficiency of the PDPC, your team is considering whether to adopt the abovementioned model to automate the analysis of data privacy policies. If this new method of analysis is adopted, the PDPC would rely entirely on the model's predictions to confirm whether app developers have breached the PDPA. The app developers would face a fine of up to $10,000 if they are found to have breached the PDPA.

How far would you, as a committee member of the PDPC:

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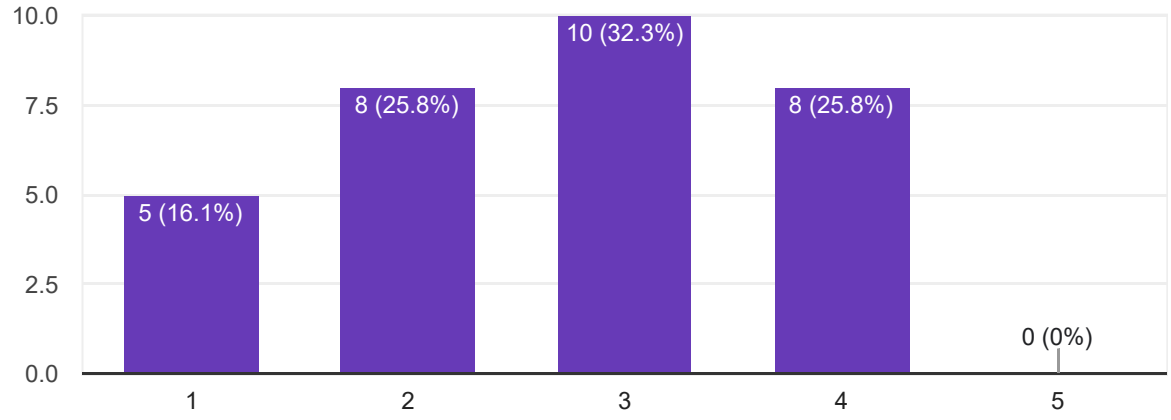
Think that using the model is an effective method of identifying violations of the PDPA?

31 responses



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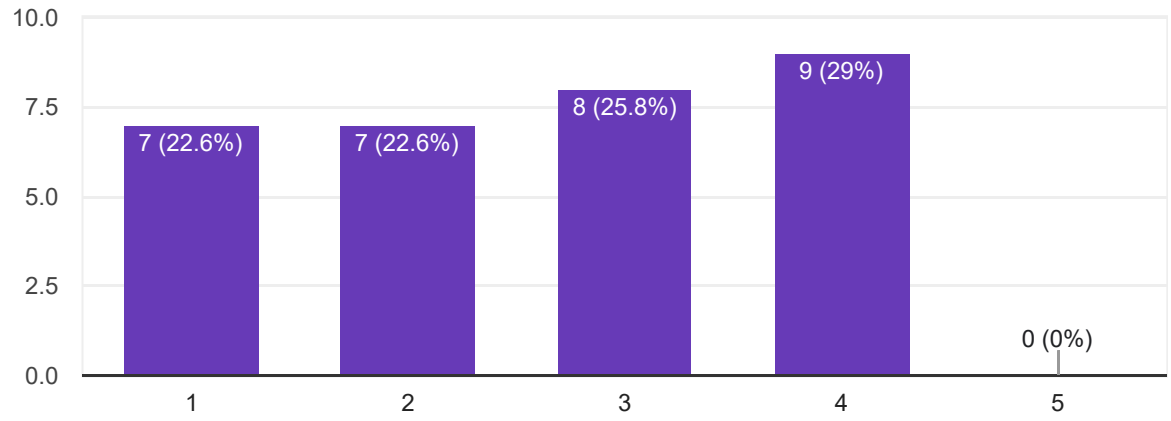
Think that using the model is a fair method of identifying violations of the PDPA?

31 responses



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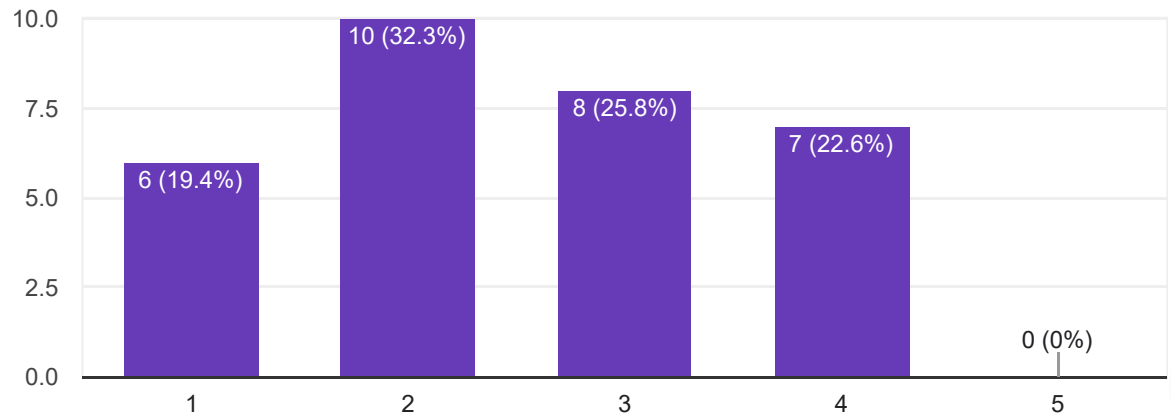
Think that using the model is a method that could be a risk to society?

31 responses



Trust the prediction made by the model?

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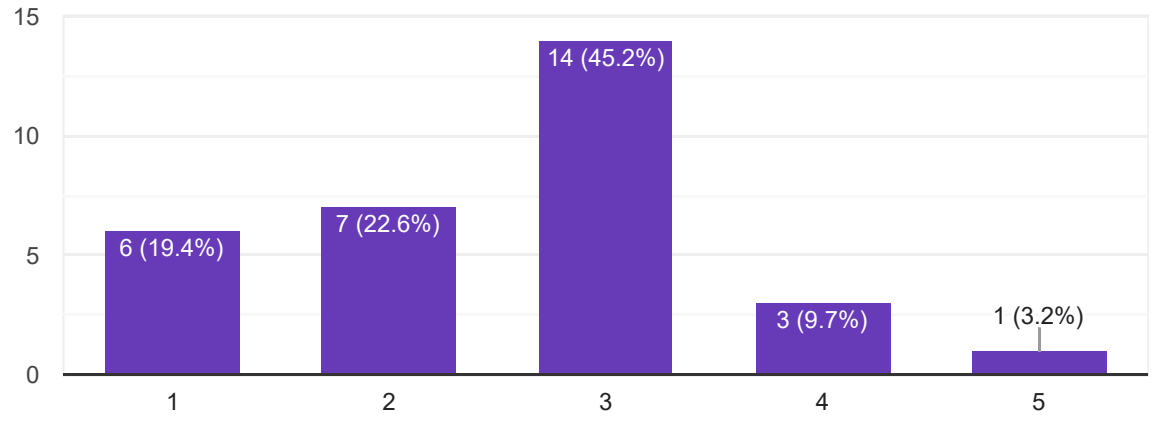
31 responses



Context 3: Imagine that you are a user of an app. You read in a forum where other users allege that the app uses cookies. You decide to analyse the data privacy policy of the app using the abovementioned model and the model informs you that the data privacy policy does not contain any sentence that notifies its users that it uses cookies.

You are deciding whether to submit this prediction as the only supporting piece of evidence to the PDPC to claim that the app has used cookies without notifying you.

If the PDPC decides that the developer has indeed violated the PDPA, you could claim compensation from the app developer of up to $10,000.

How far would you, as a user of the app:

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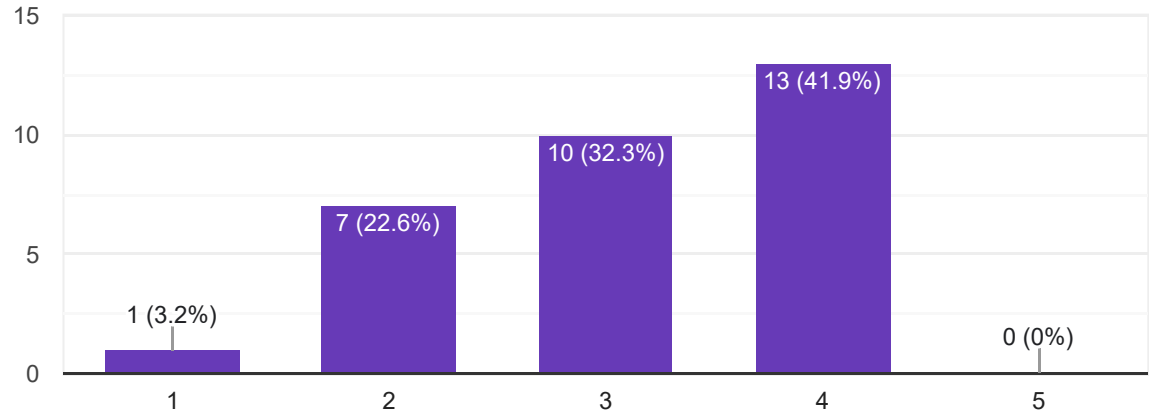
Think that using the model is an effective method of identifying violations of the PDPA?

31 responses



Think that using the model is a fair method of identifying violations of the PDPA?

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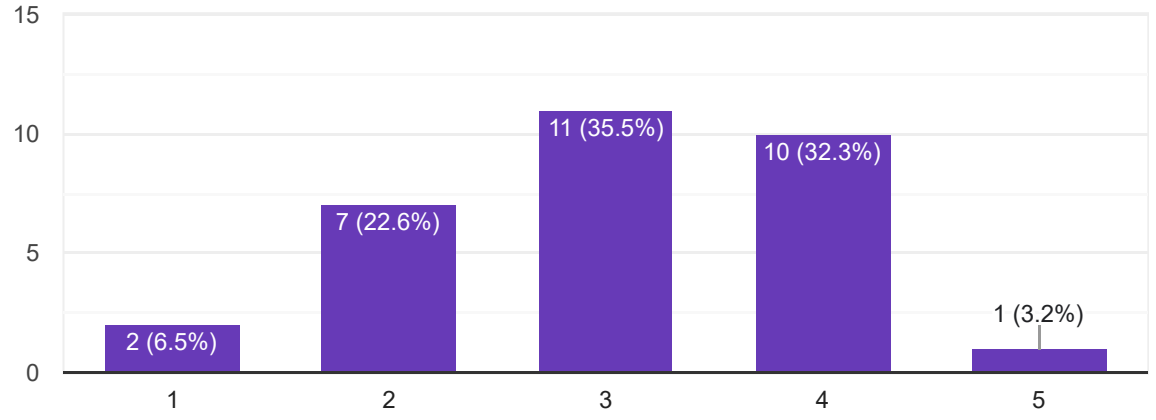
31 responses



Think that using the model is a method that could be a risk to society?

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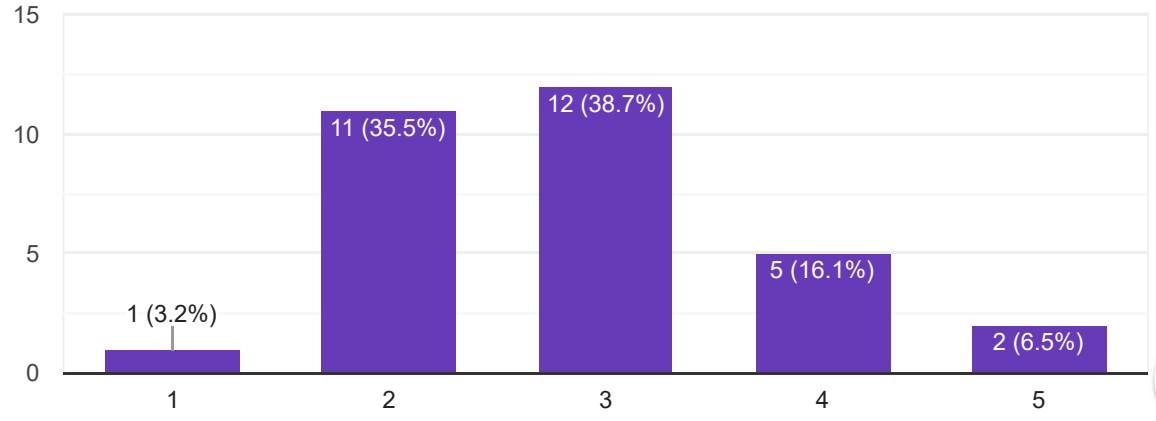
31 responses



Trust the prediction made by the model?

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31 responses