

**“ It can help with learning different terminology and what they mean ”**

To play with a bigger group: The game can be played in teams. Team 1 picks a card and answer questions posed by those in Team 2. This can also help younger groups who might need more support with this game.

Yes/No questions must always provide an example relating it to the online world. E.g. if your card relates to personal habits, then you might say “Is your card relating to personal film interests to target cinema goers.”

For a more advanced version of the game:

“ It can help with learning different terminology and what they mean ”

**CHALLENGE**

Some helpful hints for Yes/No Questions are below:

- Does this card include personal gain?
- Does this card change often?
- Is this about what you do on the internet?
- Is it about you personally?

Below:

- Once a question has been answered, the other players can then work together to eliminate cards from the game, by turning them over so that they are face down.
- Ask the player a Yes/no question relating to the card. Facilitators may wish to adapt the game, for example, setting a maximum number of questions that can be asked.
- Lay the cards out so all the information can be seen by the players.
- The rest of the players take it in turns to ask the player a Yes/no question relating to the card.
- One player selects a card but does not tell anyone else what it is.
- Lay out the cards on the table so they are not familiar with it.
- The card away so they might need to take a photo of the content on the card if they are not selected (the player must not tell anyone else).
- Once a question has been answered, the other players can then work together to eliminate cards from the game, by turning them over so that they are face down.
- Does this card change often?
- Does this card include personal gain?
- Is this about what you do on the internet?
- Is it about you personally?

**How to play:**

**Aim:** For players to guess the mystery card through asking Yes/no questions.

**Suits used:** DATA HIGHS ADULTS

**Play 1 suit per game)**

**Level of complexity:** Intermediate

**Number of players:** 2+

## GUESS WHO?

## DON'T SAY IT!

**Level of complexity:** Simple

**Suits used:** DATA VALUES

**Number of players:** 4+ players in 2 or more teams

**Aim:** For players to guess the title of the card, without saying any of the bullet points below it.

This is a great warm up exercise to help players to learn the cards. Younger players may need extra support with this game.

**How to play:**

- Players take it in turns to pick a card from the top of the pile and describe the title to their team, without using any of the words on the card.
- Facilitator to adapt depending on the needs of the group- players may need to use some of the bullet points at the beginning, especially if they are unfamiliar with the cards.
- Players are given 60 seconds to guess. If the team does not manage to guess the title, then the card goes to the bottom of the pile.
- The team with the most cards at the end of the game wins!

**CHALLENGE**

For a more advanced version of the game:

Players are invited to draw the title of the card, as opposed to trying to explain it using the bullet points.

**“ It would be useful to learn the basic ideas of the cards and have a wider understanding of them. It would be very useful to learn the cards before you play a more complex game ”**





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# UNBIAS

# **Facilitator Booklet**

# **UnBias Awareness Cards**

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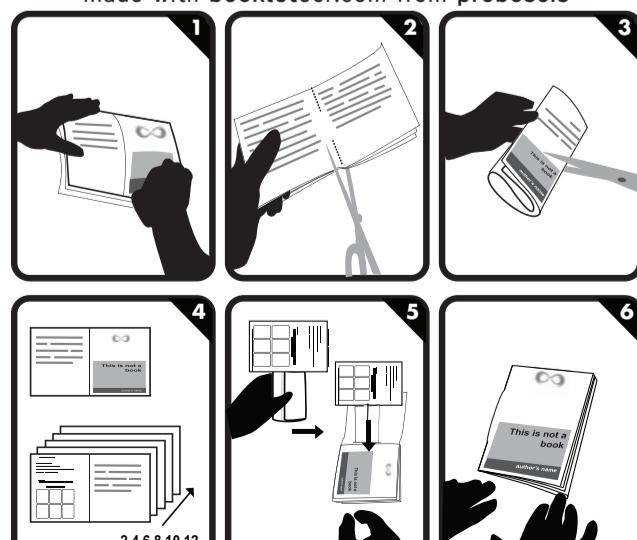
Published by University of Nottingham

A companion to the UnBias Fairness Toolkit

Horizon Digital Economy Research Institute

unbias.wp.horizon.ac.uk

made with [bookleteer.com](#) from proboscis



The Unbias team at the University of Nottingham ran workshops with different age groups to ask them to try out the cards, to give feedback on them and to come up with other ways of using them, which are fun, informative and that further the dialogue amongst these groups.

Two workshops each were run with people aged 15-17 years, 18-29 years, 30-50 years and the over 65s. This booklet provides a selection of the games and activities that from the over 65s. We hope that these were created or co-designed with people who are useful for facilitators, whether they be teachers, group leaders or others who would like to run workshops with these age groups, or to provide inspiration for other and others, or to discuss issues of bias, trust and fairness in algorithmic systems.

For a free download of the Fairness Toolkit, including the Awareness Cards, please visit: [unbias.wphorizon.ac.uk/fairness-toolkit](http://unbias.wphorizon.ac.uk/fairness-toolkit)  
Please visit: [unbias.wphorizon.ac.uk/fairness-toolkit](http://unbias.wphorizon.ac.uk/fairness-toolkit)  
Professionally produced decks of cards can be purchased at cost-price online at [www.makemeplayingcards.com/sell/marketplace/unbias-awareness-cards-set.html](http://www.makemeplayingcards.com/sell/marketplace/unbias-awareness-cards-set.html)

Algorithms are everywhere. They are increasingly being used to make decisions that affect many aspects of our lives, on a scale that is now unprecedented. The ‘Fairness Toolkit’ Awareness Cards are designed to help people to engage in a public civic dialogue about algorithms, to encourage people of all ages to think about the impact that algorithms may have.

# INTRODUCTION

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## THE AWARENESS CARDS

The UnBias Awareness Cards are part of a Fairness Toolkit, which has been created to explore issues of bias, fairness and trust in algorithmic systems. Each pack of cards contains eight suits:



In You enjoyed engaging with your group on issues of training, trust and bias in algorithmic systems, and you would like more inspiration to run future workshops on these topics, please see our Open Educational Resources: [wp.horizon.ac.uk](http://wp.horizon.ac.uk)

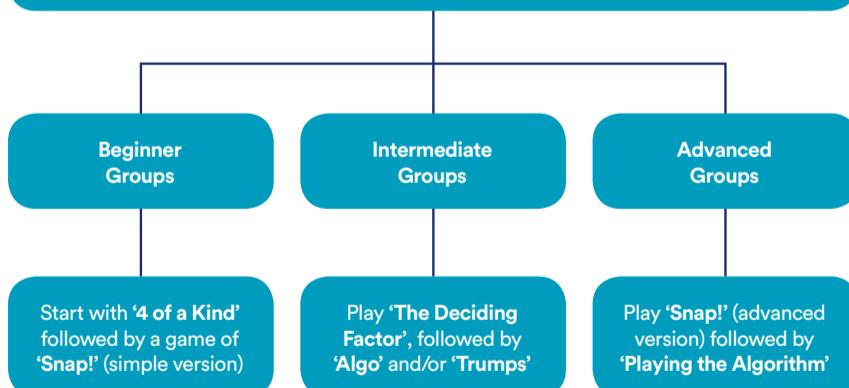
- Have a starter activity or ice-breaker that helps your group to start thinking about algorithms and how they might be affected by them.
  - We suggest that Facilitators familiarise themselves with the pack of cards, or the suits that they will be using, prior to their workshop.
  - Allow time for a really clear introduction to the cards (or the suits of cards that you will be working with in the session).
  - Using an Example card can help to frame the discussion and introduction to the cards.
  - A Process card can be easily used with cards using/familiarising themselves with the cards.
  - Give people time to ask questions!
  - School aged groups prefer quick fire games such as Snap!, and games where there is a winner.
  - Be aware that some people may require extra time to familiarise themselves with the cards, especially if they are not familiar with the concept of an algorithm.
  - If it is possible to run the activities over two sessions, then this may help some groups to absorb the information.

# RUNNING A WORKSHOP: ADVICE

# RUNNING A WORKSHOP: SESSION PLANS

Below are suggestions for how to run a full workshop using the Awareness Cards, according to the level of ability that the group may have.

Start with a warm up activity such as '**The Data Game**' to get the group started in thinking/talking about algorithms and how they operate.



# ACKNOWLEDGEMENTS

The UnBias team would like to thank all the participants who took part in the Fairness Workshops for their time, thoughtful and constructive feedback on the Awareness Cards, and for their ideas for games.

We would also like to thank the EPSRC for the Impact Exploration Grant funding, without which we could not have carried out this important and impactful work.

We are grateful to Giles Lane at Proboscis who conceived, created and designed the Fairness Toolkit, Alex Murdoch for devising the Exercises for the cards and Alice Angus who illustrated the cards.

Thank you also to Jiahong Chen for his thoughtful input in the write up of these games.

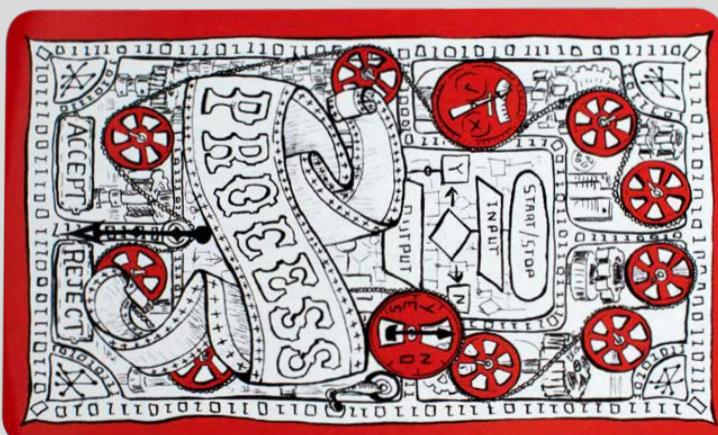
- What data is the scenario? What does the algorithm do? Choose a process card, and create the context in which the algorithm will be used. To help with this it might influence! From the created list, decide what secondary data would improve the algorithm? Discusses the remaining data and decide on FIVE more types of data which would help the algorithm to make the decision it is designed for.
  - What are the challenges? Once the above stages are complete, the algorithm is built. Use the remaining time to actions as fair and trustworthy? Is the algorithm fair? Does it discriminate against certain people?
  - Rights: What rights would you need to be violated by using an algorithm in this way?
  - Values: What could the consequences be? Could someone with conflicting values use this algorithm for other purposes?
  - Who is the target audience? Discusses the people or groups the algorithm would target or prioritise. Note that this might not be relevant to every card, and it will be related to the context chosen in the previous step.
  - What data is relevant and why? Deal out all of the Data cards, and choose every piece of data that might be useful to the algorithm – not just the title of the card, but take each bullet point as separate.
  - You may also want to discuss why each is important.

# INTRODUCTION TO THE PROCESS CARDS

**Process cards** are intended to help people to think about how algorithms are programmed, and what purpose they may have. These cards also help to introduce and familiarise people to the deck as a whole, as the cards generally require users to engage with most if not all of the suits.

We found that all age groups enjoyed working with this suit. However, facilitators should pick a card from the suit that they think their group will be able to engage with the most. The young adults could relate best to the 'Going to University' or 'Hiring Staff' cards, whilst the older adults found the 'Offering a Loan' and 'Selling Insurance' most relatable. It helps to split your group into small groups of four or five, and to have one pack of cards per group.

Whilst each *Process* card forms a complete activity that often uses the *Values*, *Rights*, and *Data* cards, each card has a slightly different method. In situations with several groups, it might be useful to have the same steps for each *Process*, the following provides a suggested format. It helps to have a large sheet of paper and post-it notes to build the algorithm.





# THE DECIDING FACTOR

# A STORY TELLING GAME

<b>Level of complexity:</b> Advanced	<b>Number of players:</b> 4
<b>Suits used:</b> <b>FACTORS DATA RIGHTS</b> <b>EXAMPLE PROCESS VALUES</b>	<b>Aim:</b> To help players to collaborate to put together a story around the cards selected.

- The Facilitator picks and reads out an *Example* card, which they think would be of most interest to their group.
- Separate all suits into piles.
- A player picks a suit and turns over the top card. The player must then start a story based on this card. The story can be fictional or real, and must be related to the *Example* discussed.
- Players take it in turns to turn over the top card of a different suit, and add something to the story, using the card as a guide. Note that if the player cannot find a link to the story using the card, they may discard it for another. The Facilitator may wish to help players to add to the story by asking them to consider particular issues that they consider to be pertinent to the theme of the story.



# INTRODUCTION TO THE EXERCISE CARDS



**CHALLENGE**

“ Wide range of applications and game-players: stand-alone or opens into wide range of discussion topics around cards, problem solving through scenarios ”

**How to play:**

- During each round, the Facilitator may pick different cards from the deck to encourage players to think about different aspects of their story, like Consequences.
- Facilitator to help players to reflect on aspects of the story to discuss how Values and Data impact online experiences.
- Next, go around the room and read out the narratives.
- Each player is given a piece of A4 paper.
- Players are asked to write the following at the top of the page, [Name] went online...:
- Each piece of paper is then folded over and passed to the player next to them. Players are then asked to write the answer to the statements/questions below. After each passed along to the next player. Note, each response is written, the paper is folded and responses should be on the same side of the paper. After each player must write the responses to the same story the whole way through.
- What are the top 3 Values underlying what I am looking for?
- To... e.g., go shopping, get a recipe.
- Allow 15 minutes for game play and 15 minutes for discussion of learning.
- Facilitator to help players to reflect on aspects of the story to discuss how Values and Data impact online experiences.
- Next, go around the room and read out the narratives.
- Each player can add in another statement that asks, How might this have gone wrong?
- Facilitators can add in another statement that asks, How might this have gone wrong?

**Feedback:**

“ Wide range of applications and game-players: stand-alone or opens into wide range of discussion topics around cards, problem solving through scenarios ”

**Aim:**

For players to reflect on their online experiences through a fun, team based story telling activity. This is a fold-over story, like Consequences.

**Suits used:**

DATA ADULTS

**Level of complexity:**

Simple

**Number of players:**

4-6 (can be pairs)

**Resources needed:**

Resoures needed: 2-7

## JUMBLE THE LINE

## ALGO

**Level of complexity:**  
Intermediate

**Suits used:**  
**PROCESS VALUES FACTORS**  
**DATA RIGHTS**

**Number of players:**  
4-6 (can be pairs)

**Aim:**  
For players to collect 4 cards that support their Process card.

**How to play:**

- Each player chooses a Process card at random and hides it from the other players throughout the game.
- Shuffle the remaining cards and deal out four cards to each player.
- Place the remaining cards in the middle.
- Players take it in turn to pick up a card from the middle.
- Players must then decide which of their cards are most suited to their Process, keeping the four most important cards in their hand. The remaining (fifth) card should then be discarded.
- The discarded card is placed face up to form a 'Discard' pile next to the main pile of cards. Players may pick up cards from their main pile or the 'Discard' pile.
- Play until all the cards from the pile in the middle have been picked up.
- Once all the cards from the middle have been picked up, players must reveal their hand of cards along with their Process card, and debate which player's cards are most suited to their Process, until a winner is declared!

**Rules:**

- Players always need 4 cards in their hand.
- Players can only have a maximum of 2 cards of the same suit in their hand at the end of the game.

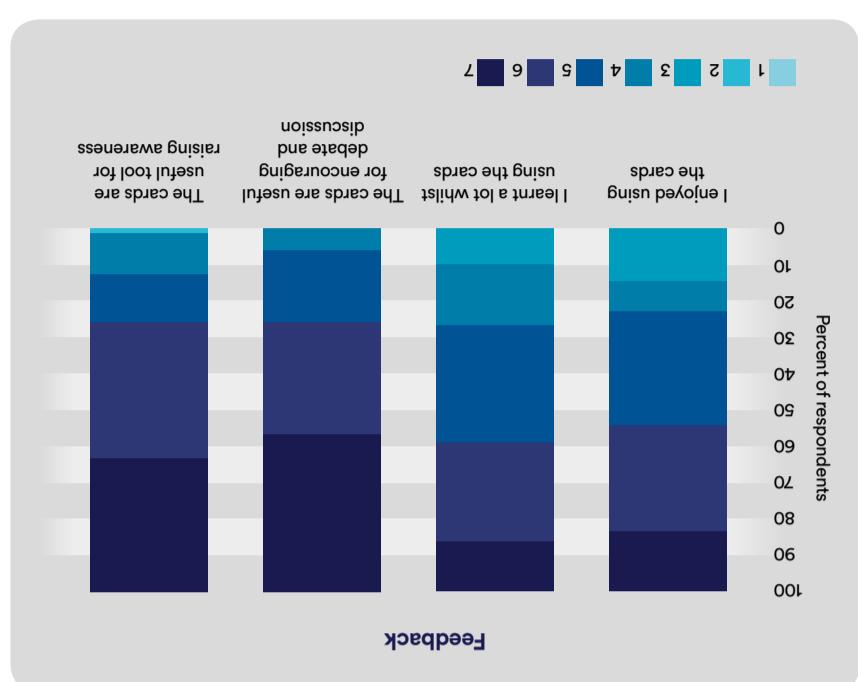
**CHALLENGE**

Really gets you thinking about how algorithms are set up and work

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A score of 1 = completely disagree, whilst a score of 7 = completely agree.  
Figure 2: Graph showing the scores participants gave to statements relating to the Awareness Cards.



“ I think the cards are useful to anyone who does not have a lot of groups which will facilitate discussion beyond basic conversation ”

## KNOWLEDGE AND LEARNING

During each of the workshops, we distributed questionnaires to gain feedback from participants on the Awareness Cards, and to find out how much they felt that they had learnt from using them. They showed that the cards were well received, and effective as educational materials (Figures 1 and 2).

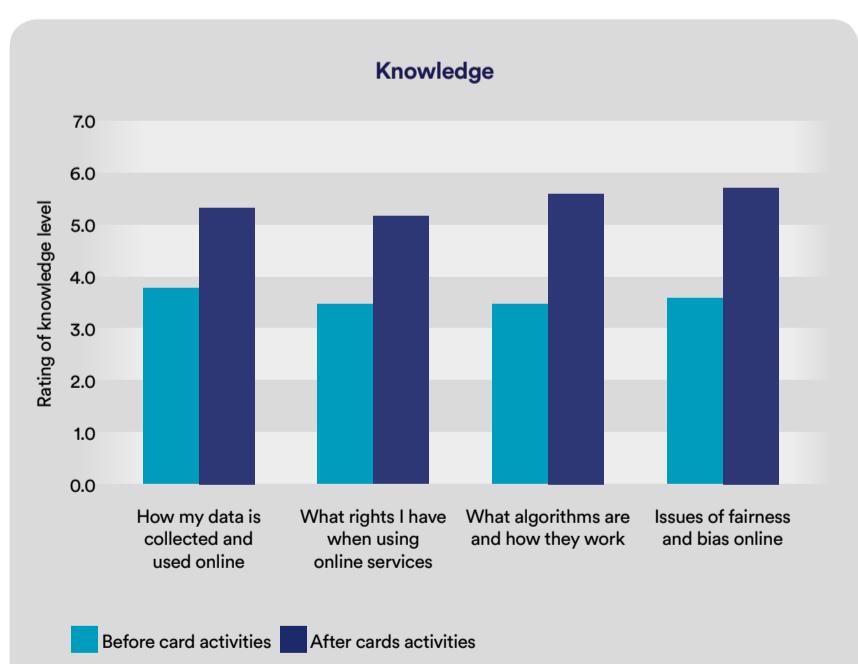


Figure 1: Graph showing the increase in self-rated knowledge before and after taking part in two sessions involving the Awareness Cards. A score of 1 = no knowledge at all in this area, whilst 7 = I am an expert in this area.



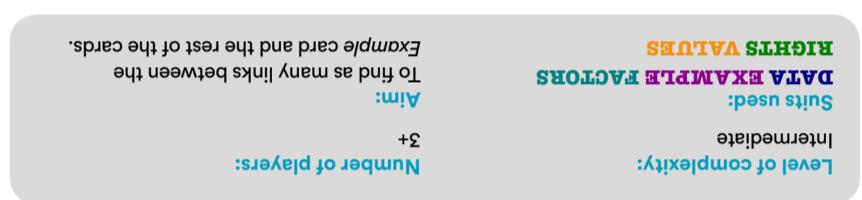


# PLAYING THE ALGORITHM!

# 'SNAP!' VERSION 1

A quick fire game to help players to become familiar with the cards and to encourage players to think about the **links and connections** that can be made between the cards. Different versions are available, depending on the desired complexity and what the Facilitator would like to achieve using the cards.

<b>Level of complexity:</b> Simple	<b>Number of players:</b> 2-6
<b>Suits used:</b> <b>DATA VALUES RIGHTS FACTORS</b>	<b>Aim:</b> For players to gather as many pairs of cards by finding links between them.
<b>How to play:</b> <ul style="list-style-type: none"><li>Shuffle the cards and deal equally amongst the players.</li><li>Players take it in turns to put their card down (face up) to form a pile.</li><li>Any player can shout 'Snap!' by placing their hand down onto the pile of cards. After shouting 'Snap!', the player has to find a link between the two cards in order to keep the pile.</li><li>The Facilitator might need to act as a 'Judge' to decide if it is a valid link.</li><li>If the player's reason is accepted, then they can put their winning pair of cards to the side and add the remaining cards from the pile to their hand.</li></ul>	
<b>CHALLENGE</b> Another player can challenge the rest of the group if they can find a <b>better link</b> between the cards!	



**TRUMPs**

# FOUR OF A KIND

<b>Level of complexity:</b>	<b>Number of players:</b>
Simple	4
<b>Suits used:</b>	<b>Aim:</b>
<b>DATA VALUES</b>	For players to gather as many sets of four cards as possible.

