



BOTBOT [Human Rights Education] GAME!

Submission to the Australian Human Rights Commission with regards to Young People and Student Responses to the Human Rights and Technology Issue Paper.

Date: 23rd October 2018

Internship and Game Design Journey with Bachelor of Creative Intelligence and Innovation

BOTBOT

Contact:

Authors:

Emily Mundzic, Llewellyn Thomas, Eleanor Salazar, Jerwin Parker Roberto

BOTBOT

Executive Summary

UTS has partnered with the Australian Human Rights Commission to support the Commission's Human Rights and Technology Project between March 2018 and December 2019. The Project is being led by Edward Santow and will explore the impact of technology on human rights.

The project will mainly focus upon:

1. The challenges and opportunities of emerging technology and its impact on human rights
2. Innovative ways to ensure human rights are prioritised in the design and governance of emerging technologies.

The project will report on and make recommendations for responsible innovation to protect human rights in Australia in 2019.

UTS selected four student interns from Innovation and Entrepreneurship Unit to attend the Human Rights and Technology Conference on the 24th July 2018. This aimed to assist with identifying potential research areas that can be further explored in an institutional response to the issues paper. We will provide our perspective on challenges and approaches to designing solutions.

We are students from fourth year Bachelor of Creative Intelligence and Innovation degree who specialise in a wide range of creative and innovative methodologies alongside our core degrees. In this context, we have applied a vast range of methodologies from Complexity theory, Futures thinking to Systems thinking in order to delve deeper into the complex issues addressed in the conference and by the issues paper.

This document features our journey and findings that aims to contribute to community consultation and to provide a voice on how technology impacts young people. It particularly focuses on the development of an educational game for first year BTI (Bachelor of Technology and Innovation) students that focuses on building ethical awareness and consideration of human rights into the (re)development of new technologies.

Table of Contents

Internship Process Timeline:	5
Phase 1: EXPLORATORY	5
Phase 2: UNDERSTANDING AND TESTING	5
Phase 3: REFINE AND FURTHER TESTING	5
Meet the Intern Team:	6
THE JOURNEY	7
1.0 EXPLORING THE PROBLEM SPACE / RESEARCH PHASE	7
1.1 Primary Research: Human Rights and Technology Conference Findings Summary #RightsTechAU	7
1.1.1 <i>How might we better ensure that Human Rights are embedded into the design process from the get-go?</i>	8
Problem Statement	8
1.1.3 First General objective:	8
1.2 Secondary Research/Broad Research Notes	9
1.2.1 Rapid Ideation Brainstorming:	11
2.0 IDEATION PHASE:	13
2.1 [WORKING TITLE - ROY > GAME IDEA] V1	13
2.2 Mind-mapping the game	14
2.3 Card Deck Creations and Description Brainstorm:	15
2) Freedom of Expression Cards	15
3) Right to benefit from scientific progress Cards	15
4) Freedom from Violence Cards	16
5) Accessibility Cards	16
6) National Security and Counter Terrorism Cards	16
7) Right to Privacy Cards	17
8) Right to Education Cards	17
9) Access to Information and safety for children Cards	17
10) Right to a Fair Trial and Procedural Fairness Cards	17
2.4 Game mechanics concept version 1	19
2.6 Potential Post-game (lesson plan) discussion draft	21
2.6 Human Rights Checklist:	21
3.0 Further Ideation and Testing Phase	22
3.1 Testing with the BTI (Bachelor of Technology and Innovation) Students	23



3.2 Testing and feedback from the Australian Human Rights Commission	24
3.3 Testing and feedback from the Faculty of Transdisciplinary Innovation	27
3.4 Testing and Feedback from BCII (Bachelor of Creative Intelligence and Innovation) Students	28
4.0 Refine, Design and Recommendation Phase	29
4.1 Final Rule Sheet/Checklist/Lesson Plan	29
5.0 Conclusion	34
5.1 Future Steps / Recommendations	35
6.0 Other Resources:	35
7.0 Appendix:	37
Figure 7.1.0 First Iteration	37
7.1 Debrief after the Human Rights and Technology conference. How might Human Rights be Implemented into the Design Phase from the Get-go/beginning?	37
7.2 Technology advancing or restricting Human Rights as Identified in the Australian Human Rights and Technology Issues Paper (for use within our game concept).	38
7.3.3 Sample Timeline - Objectives Planned out for the 3 week internship	39
7.3.4 Games that Inspired the development of BOTBOT	39
7.3.5: Logo Design Transformations	40

Internship Process Timeline:

Phase 1: EXPLORATORY

Explore: Primary and Secondary Research.

- Attending the International Human Rights and Technology Conference
- Mandatory debriefing sessions
- Exploring the problem space, 'play testing' at the Games Library @ UTS
- Speak to Susie and Mitra to further explore the idea
- Set up meetings for week 2, further research and refinement for focus group with BTI students
- Objective→ Game Idea + Paper Prototype

Phase 2: UNDERSTANDING AND TESTING

- Tested the first iteration/working prototype with First Year Bachelor of Technology and Innovation Students.
- Visited the Australian Human Rights Commission, discussed findings from the conference, the development of our solution and how it may contribute to the overall Human Rights and Technology Project → Personal growth, learning and Networking
- Visited the Faculty of Transdisciplinary Innovation at UTS and further tested out our solutions mechanics, and gained valuable insights

Phase 3: REFINE AND FURTHER TESTING

- Condensed rules sheet, refined game design and mechanics.
- Refined lesson plan/game debrief
- Finalisation of internship and future steps/recommendation (Capstone)
- Presentation and summary



Meet the Intern Team:

Jerwin Parker Roberto

Bachelor of Business (Extended Marketing and Management)/ Bachelor of Creative Intelligence and Innovation

Eleanor Salazar

Bachelor of Arts in Communication (Social Inquiry)/ Bachelor of Creative Intelligence and Innovation

Emily Mundzic

Bachelor of Communication (Journalism) / Bachelor of Creative Intelligence and Innovation

Llewellyn Thomas

Bachelor of Communication (Media Arts and Production and Digital and Social Media) / Bachelor of Creative Intelligence and Innovation

Supervised by:

Monique Potts

Deputy Director, UTS Innovation and Entrepreneurship

THE JOURNEY

1.0 EXPLORING THE PROBLEM SPACE / RESEARCH PHASE

1.1 Primary Research: Human Rights and Technology Conference Findings Summary #RightsTechAU

After attending the Human Rights and Technology conference, we had a debrief session, extracting main insights we gleaned from the conference. As a team, it was clear that the conference broached an array of complex themes and issues facing the community and future citizens.

From the debrief section, the following themes were identified:

- *AI is not neutral and greater awareness is needed to monitor and rectify built in bias*
- *The worldview and experience of developers and designers can impact the way AI is built and operates.*
- *A need to question and enforce systems of accountability and transparency into existing, developing and new technologies.*
- *How can you build in potential for surprise and difference when data is reflective of past experience only and likely to replicate this?*
- *How much human intervention is needed or desirable with AI systems?*
- *What are shared vocabularies that can be used to increase inclusivity, transparency and reduce confusion and fear?*
- *How can a right to privacy be built into a system?*
- *What is the difference between values driven design and social system design?*
- *How can you hardwire human rights into an MVP?*
- *Is it important to have target users of a technology involved in actually designing and developing the system/platform?*
- *What is the obligation of private companies designing AI for use in public systems (e.g. health and legal systems) to provide access to source codes and transparency of how algorithms work?*



We explored a range of methodologies, including complexity theory, futures thinking and systems thinking to narrow down these complex themes into areas we wanted to explore in the timeframe that we had:

- **AI and Ethics**
- **Systems of accountability**
- **Responsible and inclusive innovation**
- **Community consultation and a multi-stakeholder approach**

From there, we developed a statement to launch our brainstorm:

1.1.1 How might we better ensure that Human Rights are embedded into the design process from the get-go?

Debriefing on the conference with Susie Pratt, course coordinator of the Bachelor of Technology and Innovation, we spoke about testing our assumptions and learnings from the issues paper with target segment. As university students, we decided that providing the commission with a millennial perspective would be an area we would be best equipped to exploring. We were interested in starting the conversation around human rights and technology with first year University Students who study the Bachelor of Technology and Innovation by creating a game. We developed the following problem statement:

Problem Statement

“How might we facilitate greater awareness of the issues emerging at the intersection of human rights and technology for first year BTI students so that they critically consider human rights in the use and development of new technologies?”

1.1.3 First General objective:

- Create a game (or a suite of games) that aim to inform **first year BTI students of their rights and responsibilities in the development and use of new technologies.**
- To facilitate the practice of embedding human rights into the process of (re)developing new technologies for the future.

- To utilise the game as a learning tool, and to potentially harness the findings of such research to effectively present the data back to UTS. This could potentially shape the student perspective of UTS' submission to the Australian Human Rights and Technology Project.

1.2 Secondary Research/Broad Research Notes

HUMAN RIGHTS AND TECHNOLOGY

Game:

- Focus on introducing players to human rights being restricted/impacted by technology
- Game lessons to be subtle rather than overt
- Chance element
- Social emphasis
- ROY: working title (often voice command AI's have a female voice)

Themes:

- AI bias = human bias built into the algorithms
 - Historical data
 - Privileged populations developing the tech, aren't aware of the consequences
 - AI & Decision-making
- Accounting for difference
- Worldviews - potential for future scenarios - quadrant matrix
- Point of contentions = human intervention
- Empathy (privilege game)
- Accountability and the repercussions of decisions

Goals:

- (Re)introduce players to human rights
- Human rights should be embedded into the design process of tech from the get-go.
- Change the current perception and attitude of human rights as an afterthought.
- Addressing the educational gap in the ethics of AI and emerging tech.



Target audience:

- Main focus: 1st Year BTI Students
- Secondary and Tertiary students

Key Resources:

- Human Rights and Technology Conference (24th July)
- Human Rights and Technology Issues Paper
- The UTS Social Impact Framework

RESEARCH

Human Rights and Technology Issues Paper:

Human Rights being advanced and restricted by emerging technologies:

1. Right to equality and non-discrimination
2. Freedom of expression
3. Right to benefit from scientific progress
4. Freedom from violence
5. Accessibility
6. National security/counter-terrorism
7. Right to privacy
8. Right to education
9. Access to information and safety for children
10. Right to a fair trial and procedural fairness

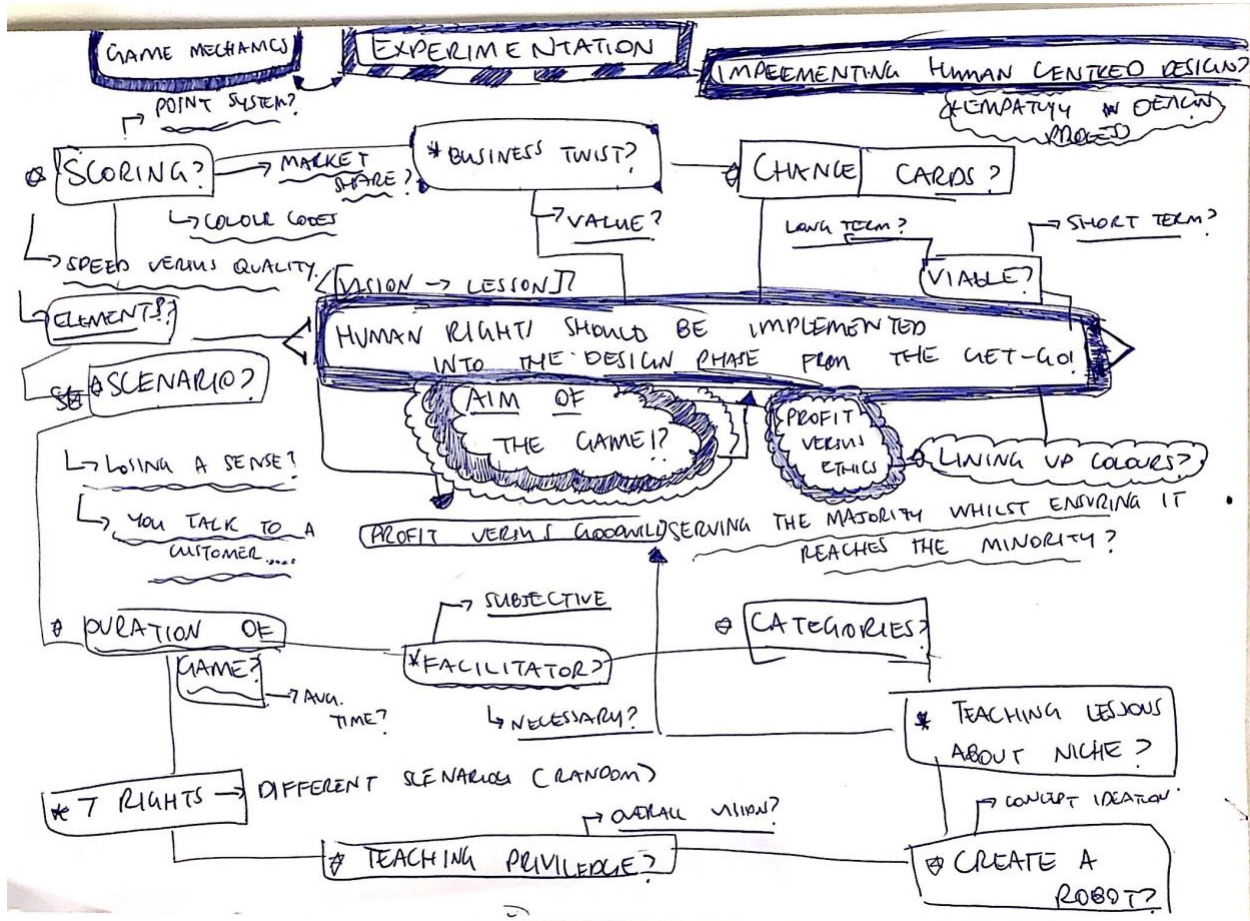
UN Declaration of Human Rights

The United Nations Declaration of Human Rights - point of reference for an international framework for human rights governance.

AUS National Innovation & Science Agenda Report

What are the ethical dimensions surrounding the practice of innovation and current policy?

1.2.1 Rapid Ideation Brainstorming:



Empathy Game

- Example: Last Year Eleanor facilitated a game that highlighted the presence of power and privilege. Each participant was provided with a character profile of a person who was considered a minority or 'extreme' in comparison to their own personal lives.
 - Profile Example:
 - Irra, 46
 - Indigenous single-mother of 2 children aged 8 and 15
 - Filed an AVO against the father of her children on the grounds of domestic violence
 - Has resided in public housing on Millers Point before being evicted, relocating to Lurnea, South-West Sydney



- She receives some government assistance to support her children and works part-time as a cleaner at UNSW
 - She suffers from type 2 diabetes but often sacrifices medication to pay for food for her children
- Each participant was then placed on a equal horizontal line. The facilitators would then call out such commands as: step back if you require government assistance to support your children or move forward if you have a bachelor degree. At the end of the exercise, participants were scattered widely across the room. A target sign at the front of the room was put up and participants from different parts of the room were asked to throw a scrunched up paper at the target. Those furthest away showed greater difficulty to those who were positioned closer to the front. Ergo - privilege y'all.
- The aim of the exercise was to not only demonstrate the work of our epistemology, but also to teach empathy, the recognition of difference and how privilege works to empower a few and displace many. The position in which you stood at the end of the game reflected your privilege; your social standing in society. In the context of public policy, your social capital, social mobility, your socio-economic background significantly influences your capacity to participate in society. More so, policy has traditionally been developed by privileged populations. The endeavour now is to empower those who have been long pushed to the periphery and move them to the forefront of discussion.
- **Inclusive Design:**
 - Game mechanic: idea of imposing limitations on participants to emphasise the challenge of living with a disability. Example: Hand behind your back to perform a task.
 - These game mechanics demonstrate the need for inclusive design. Although it will be a small change to the gameplay it will add to the experience for players. The idea of inclusive design will be challenged through the use of playing cards that will give the drawer the power to impose a negative move on a player of their choice, and there will be cards to counter-act, etc.
 - If we were to continue developing the game for a longer period of time we would think about how we could make the card game more inclusive through the use of braille, exploring how to make the deck colourblind-friendly, using dyslexie font (a font face developed to aiding in reading and learning for those

with dyslexia), and making the scenarios on the cards more applicable to different members of the community.

How do we introduce the themes of Human Rights in the game?

Brainstorm/themes	<ul style="list-style-type: none"> <input type="checkbox"/> Limiting actions e.g. closing one eye <input type="checkbox"/> Right to privacy- a card that allows you to block/another that allows a player to see a person's hard (no privacy) <input type="checkbox"/> Ones actions leads to an unintended consequence <input type="checkbox"/> Double Crossing and tactical playing <input type="checkbox"/> Dystopian/future setting for the game... <input type="checkbox"/> Chance/Strategy <input type="checkbox"/> Chance element <input type="checkbox"/> Mafia/Werewolf- social interaction in games <input type="checkbox"/> Human Rights scenarios <input type="checkbox"/> 'Taking' human rights away= emotional element
-------------------	---

2.0 IDEATION PHASE:

2.1 [WORKING TITLE - ROY > GAME IDEA] V1

- Card-based Game
- **Purpose/context:** *Identified that the best games created a sense of purpose and an atmosphere of competition where players are placed against each other*
- Everyone starts on an equal playing field, the loss of rights throughout the game disadvantages some players while advancing others.
- **Aim:** The aim of the game is to build a functioning robot - based on the collection of cards.
 - ◆ Action Cards
 - Related to the 10 human rights that each have positive or negative scenario.
 - There are physical playing hindrances.

◆ Robot Part Cards

→ **Number of robots:** 6 different Robot Versions

→ **Quantity required to win:** 6 cards to make a robot

◆ Head | Arms | Torso | Legs

◆ Players can mix n match across the colour sets, however connecting body parts need to be compatible e.g. **head and torso**

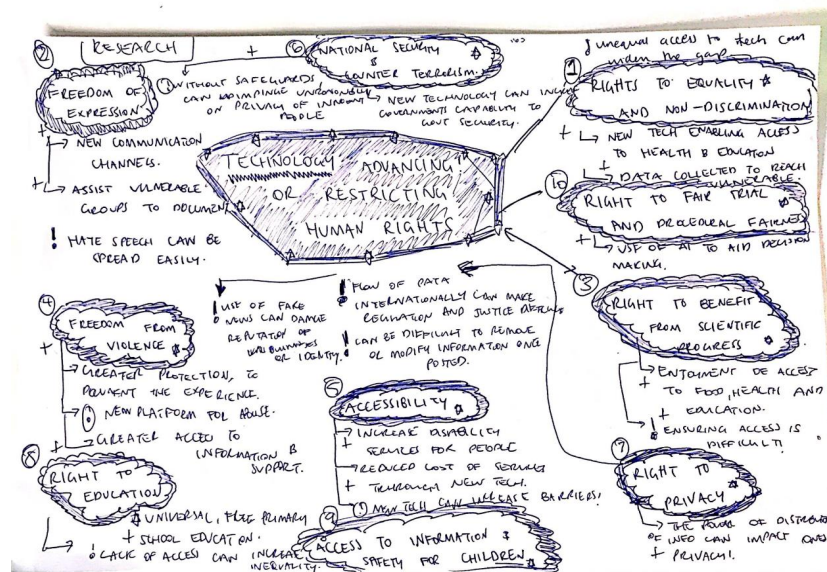
→ Some cards are worth more than others (**scoring system**)

→ Bonus cards = **a pure robot heart, soul**

→ Scoring System, utilised to promote different game styles and strategies.

2.2 Mind-mapping the game

We decided to create action cards based on the Human Rights Technology Issues Paper that identified 10 human rights that are impacted by new technologies (AHRC, 2018). In consideration of our limited time-frame and resources, we have directed our efforts toward young people and the education of human rights in the university context. We then thought how we could gamify these 10 human rights. Supplemented through secondary research, we identified gamification for learning as an engaging way to introduce students to human rights and technology. We have identified appropriate learning outcomes and used scenario mapping to develop scenarios for the context of each action card.



2.3 Card Deck Creations and Description Brainstorm:

FIRST ITERATION OF SCENARIOS:

1) Rights to Equality and Non discrimination Cards

- **Positive:** Ultimate Equality Card: This card blocks any attempt at taking a human right from you either physically or from your robot.
- **Negative:** You live in the poor neighbourhood of Pirate Town, play the rest of the game with one eye. If someone catches you with more than one eye open, they get to take one of your robo parts to their choosing.
- **Negative:** Hah! Equality you say? Equalise this! Player who gave you this card gets to steal 1 robo part.
- **Negative:** Swapsies! True equality is a fair trade. But unlucky for you, this is enforced! You must give 2 robo-parts to the player who gave you this card. They will give you 1 card of their choice back to you.

2) Freedom of Expression Cards

- **Positive:** Congratulations, you have a 30 minute spot on primetime tv everyday to broadcast your thoughts to the masses. +2 points
- **Positive:** You've got a super popular online life advice blog. You say whatever you want, do whatever you want and no-one ever gets offended. A UTOPIA indeed. Enjoy using this card to reverse any physical hindrance or block anyone from taking a robo piece.
- **Negative:** The people find the things you say very upsetting and controversial. You can now only speak by asking questions, if they forget, the person that gives you the card, gets to take a robo part.
- **Negative:** Yikes! You've been spitballin' some madness about the effects of global warming and AI on the streets and freak out passers as they go by. You must give away 1 robo part to the player who gave you this card.

3) Right to benefit from scientific progress Cards

- **Positive:** Scientists have returned and found a groovy new breakthrough planet way better than earth. Cool! Draw 2 extra cards on behalf of sick science!
- **Negative:** All of your technology is super outdated, give one of your robo parts to the player who gave you this card.
- **Negative:** Dangit! All of the people in the world have time-travelled back to a more peaceful, wholesome time on earth - 2003. You've been left behind. The player who gave you this card gets one robo part.



4) Freedom from Violence Cards

- **Positive:** You save a Civilian by fighting off a small army of Nano-pythons, +2 points.
- **Positive:** Did someone just try to steal a robo-part from you? How violent! That offends your basic human rights! Put this card down to block their ludicrous act of mayhem + violence.
- **Negative:** A bunch of angry mobstars attacked you in the street because you wore your lab coat grocery-shopping and they don't like nerds. You can't use your right arm anymore.
- **Negative:** Robot rampage! the robot you've built had a sudden meltdown, and broke everything! Get rid of all robot parts, put them back at the bottom of the deck - re-shuffle, and draw the same amount that you gave up in robot parts.
- **Negative:** Uh-oh. Violence looms in this part of town. The player who drew this card has developed a weapon of mass destruction. They can take any 1 robot part from any player.

5) Accessibility Cards

- **Positive:** Congratulations! You have an abundance of accessibility because your Papa is Elon Musk. +2 points
- **Positive:** Enough of this stealing and plundering! This card allows you the 'ability to access'. Pick up 2 extra cards when you play this card in the centre.
- **Negative:** You've been forced to go live in a rural lab far from society, the player who gave you this card gets to take one of your robo-parts.
- **Negative:** You been blocked out of the cool scientist club, you have to sell your left arm to get back in. As a consequence, if you accidentally use your left arm, then you have to give the player a robo part.
- *You weren't able to create a bionic arm for your robot so you can no longer use your left arm.*
- **Negative:** You've been a sim(™) in Sims 2 (™) this entire time and your creator has trapped you in a 3x3m walled square. You cannot escape. Give up 1 robo part and put it at the bottom of the deck.

6) National Security and Counter Terrorism Cards

- **Positive:** Your lab is extra secure! Your papa is the head of national security. +2 points.
- **Positive:** Your robot identified a national security threat + 2 points.
- **Negative:** A small Nano Leech has burrowed into your ear and therefore accessed sensitive information, the player who gave you this card gets to choose and take one of your robo parts.
- **Negative:** You are being watched. Sensitive information of your favour sushi & coffee order are exposed! Better give one of your cards away to keep them' on their toes.



7) Right to Privacy Cards

- **Positive:** Super encryption power, this card can block any action a player made against you. This can be a physical hindrance or an attempt to steal a robo part.
- **Positive:** Your entire society now has the right to complete privacy. Everyone has magnificent underground solar-powered lairs! Rejoice! + 2 points.
- **Negative:** Techno-Clairvoyant. Person who gets this card, gets a peek at everyone's cards and gets to take one of their choosing.
- **Negative:** Move everything to the left! (move your hand of cards to the left)

8) Right to Education Cards

- **Positive:** TA-DA, You've finally finished reading how to make Robots 4 dummies. +2 points.
- **Positive:** You take a course in human-centered design. You can draw an extra card!
- **Negative:** You don't have enough money to pay for your tuition at robo-academy. You must give up one card to the player who gave you this.
- **Negative:** Your little robot just cannot seem to download the 6 timetables or comprehend Shakespeare's Henry VI, PT 1. The player who puts this against you gets to take any 1 robo part from you. Better enforce some more holistic, supreme education.

9) Access to Information and safety for children Cards

- **Positive:** Your robot receives its working with Children Check, pick up 2 extra cards.
- **Positive:** Your underdeveloped robot saved a burning orphanage! The homeless children rejoice! Their lives full of hope, their eyes gleaming with a zealous fixation. They hug your robot, kiss it with their youthful, bedraggled lips. + 2 points
- **Negative:** Your newly born robot dabbled into the dark web and sold your robo parts. Give one part to the player whom gave you this card.
- **Negative:** Children of the world choose you to be their father. This is a good thing for them, but it seems pretty problematic and dystopian that all their biological fathers have become redundant. Maybe safety for children needs to be improved in this sketchy society. Give up 1 card the other player chooses.

10) Right to a Fair Trial and Procedural Fairness Cards

- **Positive:** Challenge one of your competitors to a game of rock-paper-scissors (best of 3). Winner takes a robo part.
- **Positive:** The most ancient, sacred, fairest form of physical combat. Rock-paper-scissors (best of 3). Winner gets to take one of the losers robo part.
- **Negative:** White Middle-Aged Man Privilege! Give one robo part to the player who gave you this.

- **Negative:** Everyone thinks you stink - You stink of gross old greasy 20th century technology and hardware they say! They banish you! Don't you wish you could get a fair trial? The person you present this card misses their next go.

BOTBOT [HR] GAME PAPER PROTOTYPE:



BOTBOT

2.4 Game mechanics concept version 1

GOOD RULES

START WITH ⑦.

DRAW ① play ② each round. (or less)
can't have more than 1 physical kind.
once, they cancel each other out...

Can steal xp cards.

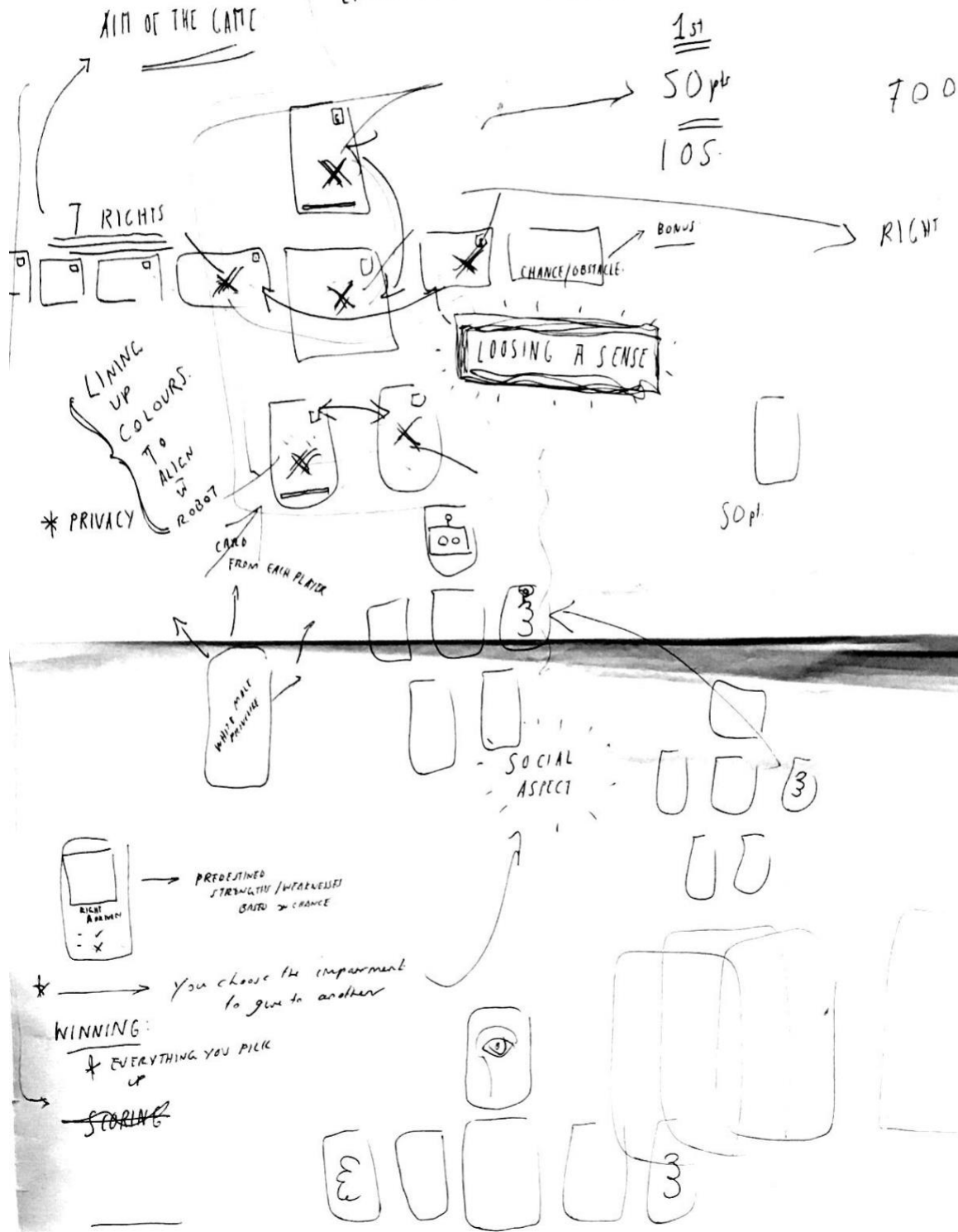
If a player runs out of cards, they can
draw ② for their go.

→ add more draw extra cards!! +2
(already changed some?)

LESSON:

HUMAN RIGHTS MUST BE EMBEDDED INTO THE DESIGN PROCESS FROM THE GET GO.
(TEACH ABOUT IMPORTANCE OF HUMAN RIGHTS IN AN INCREASINGLY TECHNOLOGICAL WORLD, WHERE THESE
BASIC RIGHTS ARE BEING ADVANCED & RESTRICTED)

CREATING TO WIN → PHYSICALLY CREATE





2.5 Potential Learning Outcomes

1. Knowledge about the human rights outlined by the issues paper
2. An opportunity to reflect on the challenges that technology poses upon your human rights

2.6 Potential Post-game (lesson plan) discussion draft

- How do we rise to the challenges posed from the conference?
- How do we embrace the opportunities of emerging tech and AI?
- What types of technologies raise particular human rights concerns?
- Specific case studies e.g. Cambridge Analytica, COMPAS

2.6 Human Rights Checklist:

After playing the game we hope that the next time you are designing a project or idea, consider human rights in the design process.

To help you out, we have designed a human rights checklist that will get you thinking and reflecting on your next idea/product/service:

- ☐ What are the economic, social and environmental impacts raised by your idea/product/service?
- ☐ What are the specific gender implications?
- ☐ Does it give less or more favourable treatment to any person or group of persons based on sex, race, colour, religion, social or economic standing, political opinion or disability?
- ☐ Does it provide for equal treatment and non-discrimination?
- ☐ Does it require a person to identify with a particular behaviour, society or group of persons?
- ☐ Does it recognise and respect confidential information?
- ☐ Can a person express consent before having their information accessed?
- ☐ What have you done to ensure transparency and access to information?
- ☐ How will your idea/product/service available and accessible? To whom?
- ☐ What is the purpose of the limitations you have made in your idea/product/service? Are there less restrictive means?



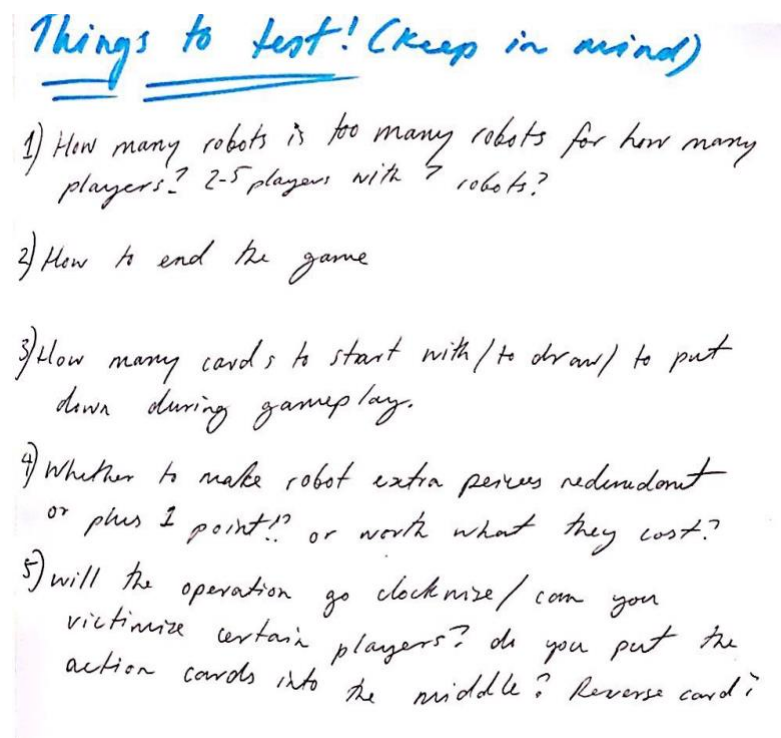
- ☐ What have you done to gain an empathic understanding of the problem you are trying to solve?
- ☐ Have you checked yourself for your bias and assumptions along the way?

Extra activity

Rather than providing students with the human rights checklist, ask them to create their own checklists keeping in mind the themes of the game.

3.0 Further Ideation and Testing Phase

During Phase 2 and the second week of internship, our first iteration and paper prototype of the game changed significantly. Below is an image of things we wanted to keep in mind while testing with our target audience. We were fortunate enough to play test with first year BTI (Bachelor of Technology and Innovation) students and the Faculty of Transdisciplinary Innovation at UTS, as well as gain feedback on the rules and lesson debrief from the Australian Human Rights Commission Education Team.



3.1 Testing with the BTI (Bachelor of Technology and Innovation) Students

By the beginning of the second week we had decided on the game concept and prepared a second paper prototype to test with the Bachelor of Technology and Innovation Students, courtesy of Monique Potts and Susanne Pratt. We arranged to conduct a play test shortly after class finished, and we were fortunate enough to provide pizza's as incentive for students to play our game and act as an icebreaker while we explained the purpose of the testing.

Main Feedback from the Bachelor of Technology and Innovation Students included:

- Action cards need to have a 2 or 3 word description of what the card does and make it **bold**.
- Impose some sort of restriction in the start about playing action cards
- Need a consistent action line
- Generally edit the wording of the cards
- Can only take cards "in play", so that cards that are on the table
- Only the techno-clairvoyant action card can take cards from a player's hand
- Consider the amount of space area the game needs
- If you steal a robo-card, you have to immediately play it
- The first iteration of yellow and purple cards were too similar, make them more distinct
- Can you transfer hindrances?
- If you have no cards, can you pick up 2 instead of 1?
- Add photos or illustrations into the human rights cards
- Increase the number of robot cards?
- Add profiles or backstories on the robots
- Play 2 robo cards in the first round
- Different variations or intensities of the game - thinking timewise because this game can go on for quite some time
- Game tweaks, including design of robo-parts.
- Context?
- Players felt like it was a negative spin on human rights, in the objective being to gain ultimate power [debrief - use this to reflect on 'power' and 'privilege' in the lesson plan]

Photos from the play test groups with BTI students:



3.2 Testing and feedback from the Australian Human Rights Commission

During the visit to the Australian Human Rights Commission, we were able to learn more about the commission's interest and focus for their research. The meeting commenced with an introduction to each Human Rights Employee, their background and interests in the Human Rights and Technology Project. We were also able to voice our backgrounds and main insights from the Human Rights and Technology Conference.

Main Insights/Feedback from the AHRC Education Team:

- The objective of the game has fulfilled many of the principles of Human Rights Education from the Asia Pacific Forum
- Advice was to read the Human Rights Education resource and adjust the game/learning outcomes.
- Australian Human Rights Commissioner Edward Santow was enthusiastic and excited about the proposition and the game.
- Human Rights Education is based on: about, through, for
- Game has the power to provoke thoughtful action, it is participatory and engaging
- Commission sees the person being educated, as a potential educator in the future
- Encourages information sharing and reflecting on a point in time ('how did that make you feel?')



- Inspires emotion
- More development: Community Development (could it be placed in a different context and still be engaging? Would the game need different scenarios?)
- Decide what communities we would be able to use the game with or whether to tailor to a certain audience.

The Human Rights Educator explained that there is a difference between providing people with information about Human Rights (e.g. Article 26), versus educating users about true definition of Human Rights. As defined in Asia Pacific Forum, Human Rights Education includes raising awareness, participation, empowerment and motivation to act (Asia Pacific Forum, 2018). Human Rights education is a lifelong process that involves all ages and levels, it includes all forms of education, training and learning - it can take place in public, private, formal, non-formal or informal.

BOTBOT would apply to the non-formal Human Rights Education, where it is outside the formal school curriculum. The game is designed specifically for different learning groups, with particular learning objectives. Originally, BOTBOT was created for 1st year BTI students, where the design and context was suited to them. However, feedback from the Human Rights Commission was to take into consideration how other users of the game may engage with the game, i.e: older generations, rural Australians. We were advised to think about how we could consider inclusivity or develop an expansion pack of cards.

2.1. The six principles of human rights education

The six principles have been developed specifically for this Manual but are informed by the work of educationalists, human rights educators and by the contributions of NHRIs in the Asia Pacific region.

Figure 4.2: The six principles of human rights education



BOTBOT Linking to the six principles of Human Rights Education:

1. **Relevant to participants:** Gamification has proven to be a powerful and immersive tool for education.
2. **Collaborative:** BOTBOT involves social interaction and collaboration in directing scenarios to players, and in some cases playing rock, paper, scissors. The game can be used as an icebreaker and a way of introducing the notion of Human Rights.
3. **Participatory:** An area for consideration as noted by AHRC Head of Education. The potential to conduct deeper research and pursue community consultation.
4. **Probing:** The game debrief probes into themes of Human Rights and technology, allowing players to reflect on their actions and the future. The social aspect and game mechanics acts as an easy way to learn about Human Rights.



5. **Thoughtful action:** The Human Rights checklist included with the game encourages thoughtful action for students future projects/ideas to consider Human Rights from the outset in the design process. The game debrief allows players to distinguish a moment in time when they had their rights taken from them and how they felt. By eliciting emotional reactions, the game encourages reflection and thoughtful action.
6. **Empowering:** BOTBOT encourages accountability and a sense of personal responsibility for the actions they make throughout the game. Whilst it is not an active thought process within the gameplay, it is discussed and reflected upon in the follow up lesson plan.

3.3 Testing and feedback from the Faculty of Transdisciplinary Innovation

Before the end of Phase 2, Susanne, course director of BTi, arranged a play-test game session with the staff at the Transdisciplinary Innovation department, where we were able to polish up the intent of our game and gain valuable insights from expert academics and insights from another stakeholder/group.

Feedback from the FTDi included:

- Explanation needs to be more concise, perhaps a tutorial introduction via a 3 minute video and paper sheet?
- Different learning modules and methodologies
- Changes to the colour scheme and addition of icons + wording of certain scenarios.

Changes made:

- Edited and formatted the wording of the human rights cards, ensuring a consistent 'action' line and making it bold
- Added illustrations to the human rights cards
- Decision not to make an instructional video as we intend not to set up the game in a human rights lens and rather leave that to the follow up lesson plan
- Cut down the instruction sheet, making it more clear and concise
- Made the border colours of the robo cards more distinct to eliminate confusion of cards

3.4 Testing and Feedback from BCII (Bachelor of Creative Intelligence and Innovation) Students

As Bachelor of Creative Intelligence and Innovation Students, we had the opportunity to further test BOTBOT with fellow peers. The game session is part of our legacy project that we intend to leave behind for future BCII students to play. It falls in line with the intention of BOTBOT to continue its lifespan and be open to adaptation as an education tool.

Feedback from BCII students included:

- Learning is about engaging, and I loved learning through playing and drawing themes of human rights out.
- I liked how the game gave people a physical hindrance and show the themes of human rights, empathy in a very direct way.
- Saw commonalities of seeing action cards “just like” other cards and didn’t think about it.
- I don’t really think about how actions will affect other people, which is ironic.
- Down right unfair at times. Unfair like life, “my human rights are being taken away”.
- What are my rights? It made me think about it.
- More robot parts to make the game quicker.
- So much text on the cards, did not make me consider ethics.
- Who is it tailored to?
- Themes - how to graphically represent and brand that.
- Consider redesigning the box and manual.
- For an older audience, be more detailed and realistic.
- Be realistic for the element of scariness.
- Tell a story with the card to enhance the human rights reflection.
- Highlight one colour.
- Show don’t tell.
- Good to have a facilitator.
- Add more hindrances.
- A tutorial video could be helpful.
- Amazing illustrations and easy instructions.
- Would be interesting to introduce some money in the game (reflects how you often need money to do things in the world) eg. buy back your health.



4.0 Refine, Design and Recommendation Phase

Based on the feedback in Phase 2, we used Phase 3 to combine the critical feedback provided by the 3 different stakeholder groups (first year BTI students, the Australian Human Rights Commission and the Faculty of Transdisciplinary Innovation) to further improve on the final concept of the Game. In Phase 3 we will brush up on the gameplay mechanics, rule sheet, debrief, tweak the design and create packaging. We have also used this time to reflect upon the internship and design journey.

4.1 Final Rule Sheet/Checklist/Lesson Plan

Intended Learning Goals:

- Provide knowledge about human rights that are being advanced or restricted by emerging technologies
- Develop a sense that empathy is the foundation for ethical practice
- Make players conscious of who is involved in the development of new technologies and how that influences decision-making and accessibility to products and services
- Realisation that technology is not created with human rights in mind/ consider the impact of emerging technology for people with disabilities.

Primary learning goal:

Develop awareness of human rights that are particularly impacted by emerging technologies and to consider human rights in the design process from the get-go.



Number of Players: 4-6

BOTBOT

Playing Time: 15-30 min

ABOUT THE CREATORS

BOTBOT is brought to you by the recent partnership between UTS and the Australian Human Rights Commission. The game was created by four transdisciplinary student interns who aimed to introduce students to the issues emerging at the intersection of human rights and technology. BOTBOT is based on 10 human rights identified by the commission's Issues Paper that are particularly affected by new technologies.

OBJECTIVE

The aim of the game is to create a compatible, functioning robot. This requires a player to collect and assemble a robot with compatible body parts.

HOW TO PLAY

BOTBOT is a game of chance and the best way to learn how to play is to start immersing yourself!

SET-UP

Shuffle the deck and deal 7 cards to each player. Place the remainder of the deck face down in the centre of the table, forming your draw pile.

FIRST ROUND

You decide who goes first! Then follow in a clockwise order. For the first round, each player draws 1 card from the draw pile at the beginning of their go. Then they must put down 2 robo cards. If you only have 1 robo card, you must play that card for this round. If you do not have any in your hand, you cannot play in the first round.

TURN SEQUENCE: all following rounds

1. Draw one card from the deck
2. Play two cards from your hand (or none)- action card(s) or robo part(s).

TYPES OF CARDS

Action Cards = Human rights cards

- **Positive Cards** - bonus points, ability to block physical hindrances and attempts to steal
- **Negative Cards** - when drawing a red card, **direct the action to a player of your choice**

Robo parts = 6 robot versions/colour sets

Bonus Cards = bonus points*

HOW TO WIN

Quantity required to win: 6 cards to make a robot = head | torso | arms | legs

In order to win, a player must colour-match connecting body parts = head + torso, two arms and two legs (see sample robot). You must yell 'BOTBOT!' when your robot is complete.

There are up to two possible winners! The *first winner* is the player who first assembles a functioning robot. A *possible second winner* is the player who has the most points. Points are only redeemable from the cards you have played. **You cannot count the cards that remain in your hand.**

SCORING SYSTEM

- Collect points from bonus cards and the for each robo-part (scores are located at the top left corner of the card).
- All robot versions add up to 10 points (there is no all powerful robot!)
- **You can put down multiple of the same body parts!** (These will add to your final score. But beware...others can steal these parts if they have been played in your section).

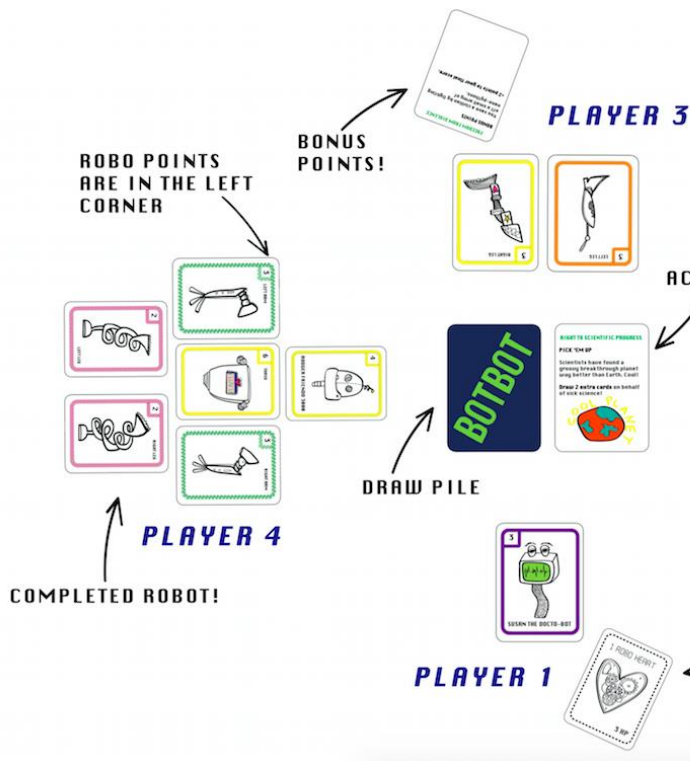
NOTES

- ☐ If the draw pile runs out, shuffle the action pile to create a new draw pile.
- ☐ You can only steal robo parts and bonus cards from another player that are on the table. The card(s) you steal must then be placed on the table in your section, **not back into your hand**. The 'Techno-clairvoyant' card is the only card that can steal from another player's hand.
- ☐ You can only have one physical hindrance at a time. A new one would cancel out the one you currently have.
- ☐ If you have a BLOCK card in your hand, you can play this in immediate response to a negative card.

BOTBOT

SAMPLE ROBOT AND GAMEPLAY

Players can mix n match across the colour sets, however connecting body parts need to be compatible. **Example:** Head, Torso = YELLOW | Left & Right Arms = GREEN | Left & Right Legs = PINK



LESSON OF THE GAME

‘Human rights should be embedded in the design process from the get-go.’



Often, technology is not made with human rights in mind. By playing BOTBOT we hope that players will consider human rights from the get-go when next designing an idea/product/service.

To help you out, we have designed a human rights checklist to get you thinking and reflecting on your next project. [Alternatively get students to create their own checklist!].

Human rights in the design process checklist:

- ☐ What have you done to gain an empathic understanding of the problem you are trying to solve?
- ☐ Have you checked yourself for bias and assumptions along the way?
- ☐ What are the economic, social and environmental impacts raised by your idea/product/service?
- ☐ Are there any specific gender implications?
- ☐ Does it give less or more favourable treatment to any person or group of persons based on sex, race, religion, social or economic standing, political opinion or disability?
- ☐ Does it require a person to identify with a particular behaviour, society or group of persons?
- ☐ Does it recognise and respect confidential information?
- ☐ Can a person express consent before having their information accessed/used?



- ☐ How will your idea/product/service be available and accessible?
To whom?
- ☐ What is the purpose of any limitations you have made? Are there less restrictive means?

DEBRIEF/LESSON PLAN

GAME CONTEXT

It is the year 2100 and you have all chosen the path of a robot-maker. You are immersed in a world thriving on rapid advancements in technology. As you find yourself in the midst of an ever-evolving terrain, new challenges arise and you are tasked to consider the impacts of your actions. What moves will you make to stay ahead? What will you sacrifice in the end? What could you have done better?

In a world where players are competing to create the best robot, rights are removed and privileges sought after as all battle to make the best robot and win the game.

- ☐ What do you know about human rights? When do you first remember hearing/being introduced to human rights?

The human rights cards we have created don't cover all the types of human rights. Rather, the Human Rights and Technology Issues Paper created a foundation for the card-playing game, basing BOTBOT on 10 human rights identified by the commission as particularly affected by new technologies.

- ☐ What human rights do you think are most commonly implicated in the design of new technologies and innovations?/ Can you think of any technology that raise or will raise human rights concerns?
- ☐ What happens when human rights are/aren't considered in the design of new technologies?

**think of groups of people such as children, young people, older people, women and girls, LGBTI people, people of culturally and linguistically diverse backgrounds, Aboriginal and Torres Strait Islander peoples*



In the game, everyone started off on an equal playing field, with no physical hindrances, no human rights taken away from them. Obviously, if human rights were never taken away it would be a lot easier to build a robot.

- ☐ How does it feel to have almost built your entire robot, only for someone to take away a robo-part?
- ☐ Reflect upon having this much power in the real world. How your actions would impact certain people?

The loss of 'rights' throughout the game is symbolic of people at the fringes of society, places where human rights are impeded and who have no access to inclusive technology.

- ☐ How might we design tech with human rights in mind to foster responsible innovation?
- ☐ What challenges currently exist for people with a disability accessing technology?
- ☐ Have you ever heard of inclusive design/technology, what do you think it refers to?

5.0 Conclusion

To conclude, the UTS and Australian Human Rights Commission partnership was a beneficial opportunity as creative Intelligence and innovation students. It allowed us to collaborate and work towards tackling a complex issue, with an interesting focus on the issues emerging at the intersection of Human Rights and Technology and its impact on diverse stakeholders. As young people, we were encouraged to explore and present the millennial perspective, looking at how technology impacts our generation. We applied critical & creative thinking, problem-posing, solving, innovation & entrepreneurial skills to explore the expansive problem space. In creating our educational game and testing it with BTI students, we were able to garner crucial real-time feedback from our intended target audience. Furthermore, this opportunity allowed us to develop our personal goals prior to beginning the internship. Many of us found new learning opportunities, we had not thought about initially such as the use of illustration software.

In reflection of our 3-week journey, we found that the intern team had possessed similar values and were clearly passionate about human rights and technology. As a result, we had a committed and enthusiastic team approach from the get-go. The AHRC/UTS Internship team were also blessed to have a great leader/supervisor in Monique Potts who was involved in every aspect of the Internship, from providing us with working spaces, to connections to various stakeholders and advice which steered the direction and development of the project and our research.

With regards to our finalised solution/tool, it is important to summarise that BOTBOT is intended to be a conversation starter. It an appealing venture for our millennial target audience as they are engaged at

BOTBOT

first implicitly into the benefits and consequences that technology has on human rights and then later encouraged to delve deeper into its impact. From our respective disciplines, and through our unique upbringing into the digital age we saw gamification as a great way to actualise the learning goals of BOTBOT. Based on the 10 human rights identified in the AHRC Issue Paper, BOTBOT addresses the question:

'How might we ensure Human Rights is embedded into the creation of technology from the beginning?'

5.1 Future Steps / Recommendations

In developing and testing BOTBOT with four key stakeholder groups, it illuminated great potential in promoting human rights education for secondary and tertiary students. It has inspired in particular, Jerwin and Eleanor to harness the insights gained insofar and to continue developing on this idea through their capstone project. It is envisioned that BOTBOT would serve as a foundation to shaping the community consultation process which will have a focus on young people. As aforementioned, Jerwin and Eleanor and potentially other BCII students whom are heavily passionate about the project at hand would like to contribute to UTS' overall response to the Issues Paper.

6.0 Other Resources:

Asia Pacific Forum, 'Human Rights Education: A Manual for National Human Rights Institutions' ' 10 March, <<http://www.asiapacificforum.net/resources/human-rights-education-manual/>>

BBC News 2018, *Facebook-Cambridge Analytica Data Scandal*, <<https://www.bbc.com/news/topics/c81zyn0888lt/facebook-cambridge-analytica-data-scandal>>.

Kochi, E. 2018, 'AI is already learning how to discriminate', *Quartz at work*, 16 March <<https://work.qz.com/1227982/ai-and-discrimination-what-tech-companies-can-do/>>.

Kochi, E., Posner, M.H. and Hadzilacos, R. 2018, 'A glimpse into the future of human rights', *World Economic Forum*, 27 March, <<https://www.weforum.org/agenda/2018/03/a-glimpse-into-the-future-of-human-rights>>.



Microsoft Azure 2018, *Cognitive Services*, <<https://azure.microsoft.com/en-us/services/cognitive-services/>>

Oxford Internet Institute n.d., *About the Oxford Internet Institute*, <<https://www.oii.ox.ac.uk/about/>>.

Partnership on AI n.d., *About us*, <<https://www.partnershiponai.org/about/>>.

Unicef Stories 2018, 'World Economic Forum Unveils New Principles to Make Machine Learning More Human, 13 March, <<http://unicefstories.org/2018/03/13/world-economic-forum-unveils-new-principles-to-make-machine-learning-more-human/>>.

Tech Policy Lab n.d., *Our Mission*, <<http://techpolicylab.org/>>.

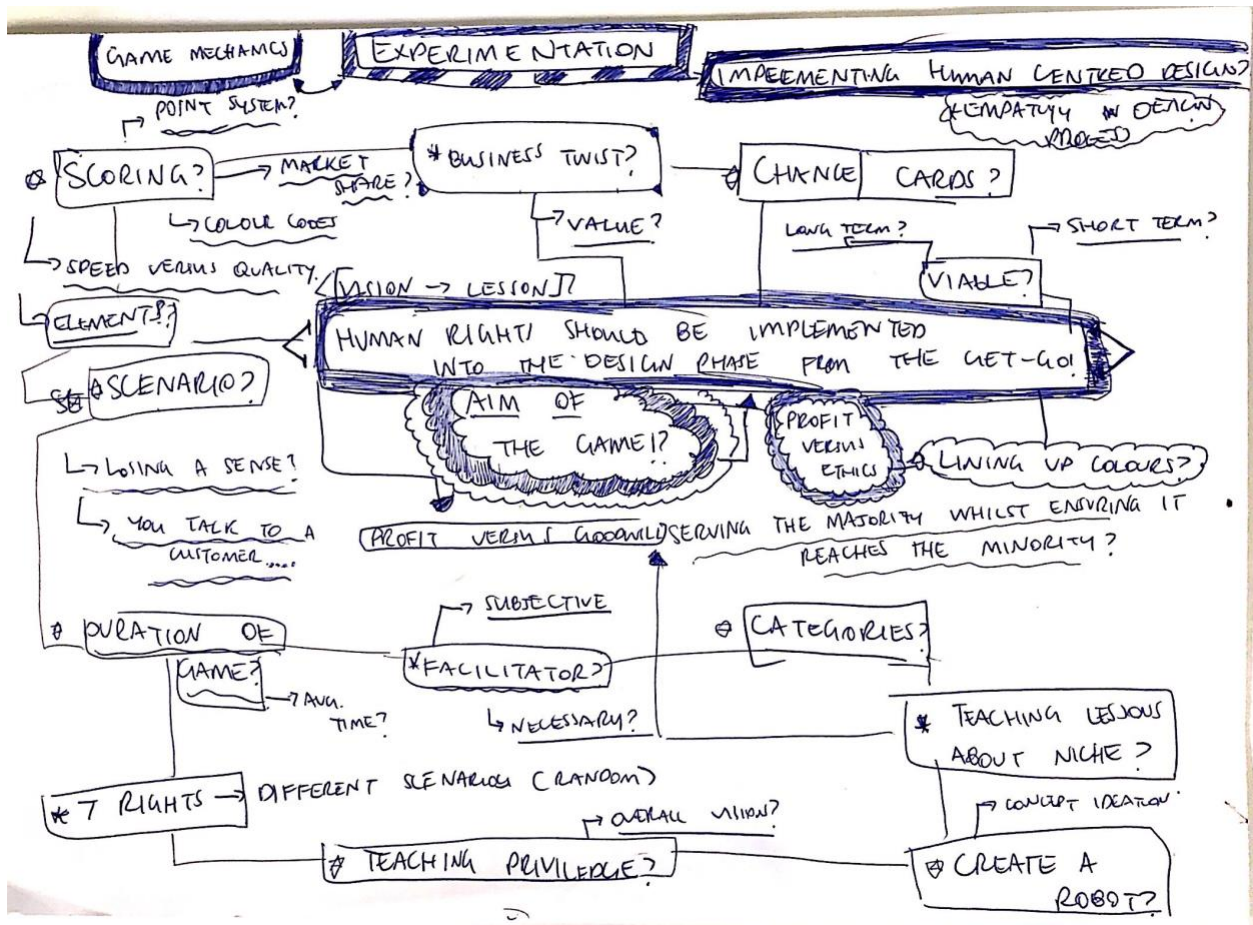
The Centre for Humanitarian Data 2018, 'About Us' <<https://centre.humdata.org/about-us/>>

Thompson, N. and Vogelstein, F. 2018, 'Inside the two years that shook facebook-and the world', *Wired*, 2 December, <<https://www.wired.com/story/inside-facebook-mark-zuckerberg-2-years-of-hell/>>.

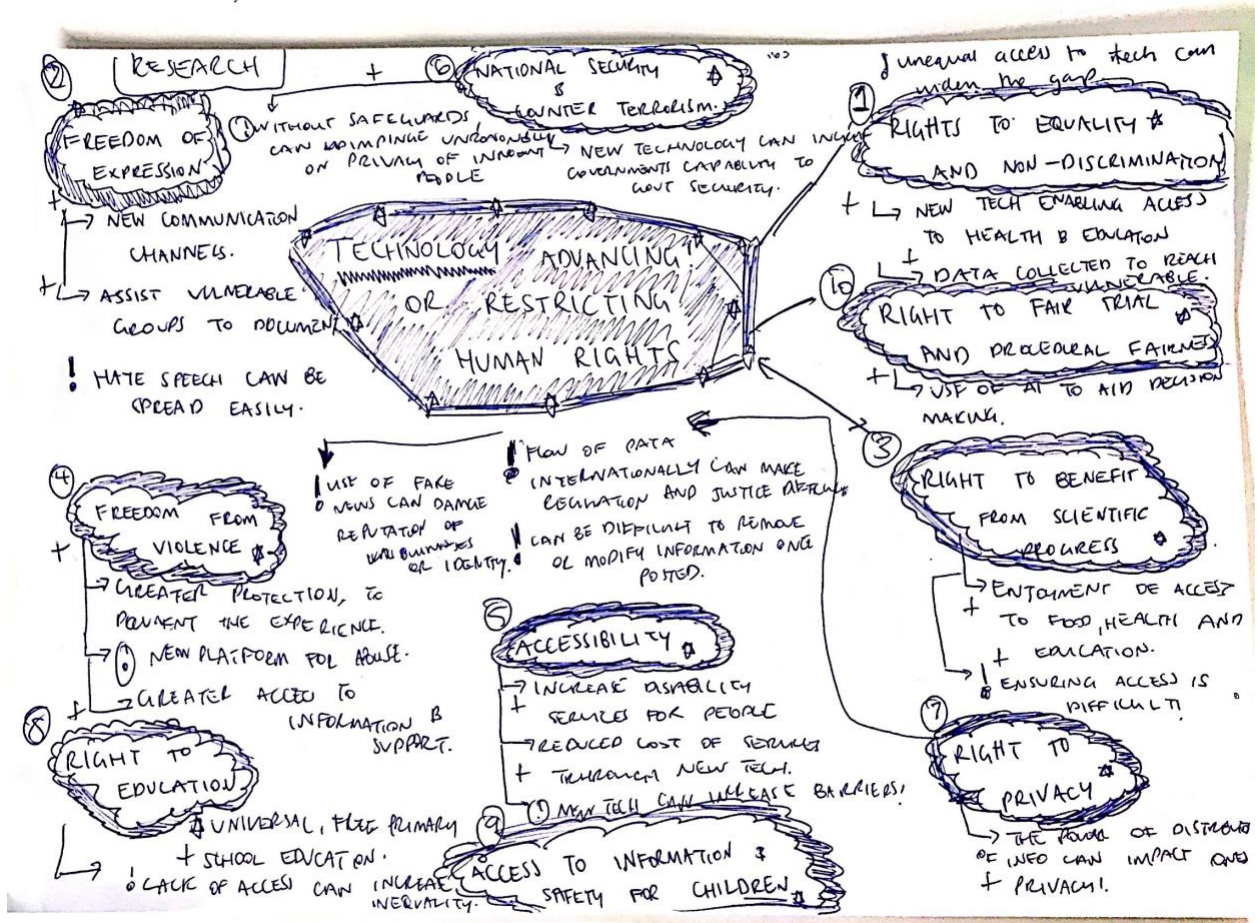
7.0 Appendix:

Figure 7.1.0 First Iteration

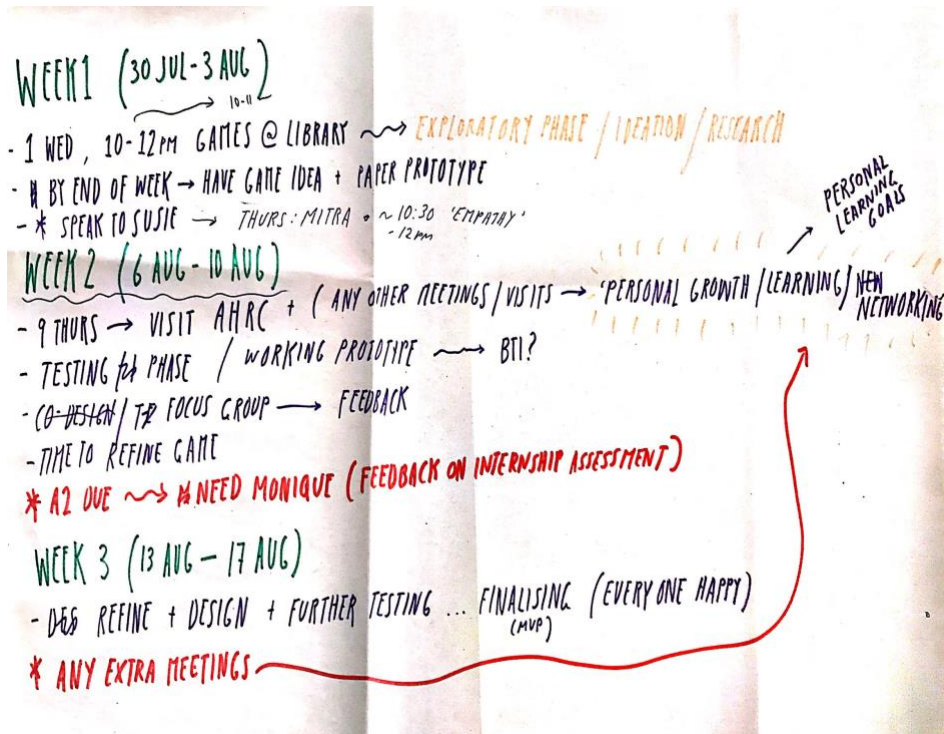
7.1 Debrief after the Human Rights and Technology conference. How might Human Rights be Implemented into the Design Phase from the Get-go/beginning?



7.2 Technology advancing or restricting Human Rights as Identified in the Australian Human Rights and Technology Issues Paper (for use within our game concept).

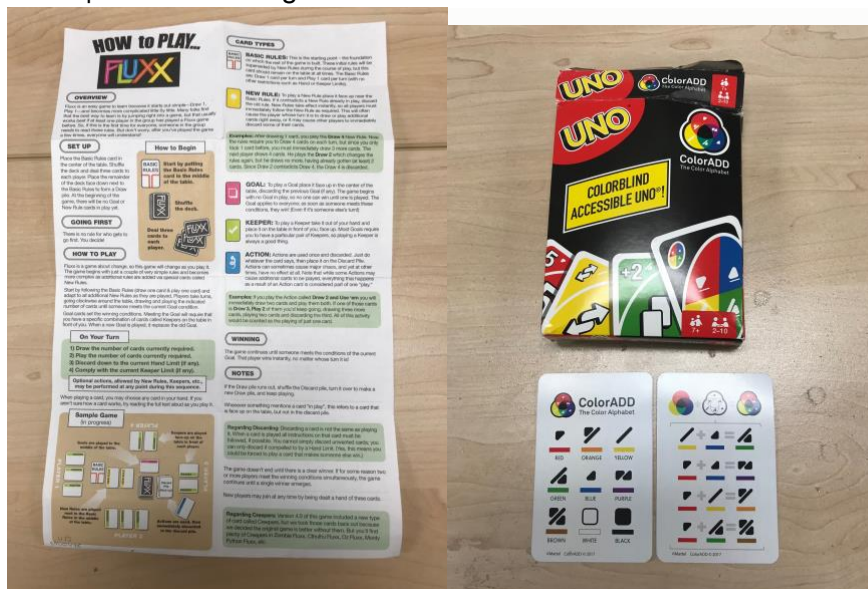


7.3.3 Sample Timeline - Objectives Planned out for the 3 week internship



7.3.4 Games that Inspired the development of BOTBOT

Fluxx | Inclusive Design with UNO.



BOTBOT



7.3.5: Logo Design Transformations

BOTBOT!

BOTBOT!

BOTBOT

BOTBOT