

1. Why is it important that our game transforms players?

Demystify AI (so the public could guide the AI development in a human-friendly way and build their trust on AI)

Why?

1. Pamela has been working on explaining AI to the public for her whole life.
2. Public has no or little knowledge about AI
3. AI is already used in many systems in society and it's going to keep developing regardlessly. The public needs to have a better understanding about AI. So we could start taking safety, security and ethics into consideration from the early stage of AI development.
4. Final decisions are made by humans.

Challenge Misconceptions About AI

Why?

- Our client, Pamela has committed her life to documenting and spreading the truth about AI.
- Public opinion is full of misconceptions.
- AI is already a huge part of our lives and its importance will only increase.

Mission Statement: Demystify AI to help the public foster a more informed view towards AI's potential impacts.

2. What is the ecosystem in which our game must create change?

1. Target Audience

- a. Educated people (at least graduated from high school) who is interested or concerned about AI
- b. They read articles about AI but they have no professions related to AI
- c. 18-30 all gender (young demographic that are more likely to be willing to learn and adapt. People who care about their life and society for more than just the next 30 years.)
- d. Have misunderstandings (need specification) to AI
- e. Doesn't have to be a competitive gamer. (Could be casual but not too dumb)

2. Initial State

- a. They already know the general definition of AI
- b. They are aware of a lot of negative impacts/expectations of AI, or misconceptions
- c. They are curious or concerned
- d. They don't have much correct knowledge of AI
- e. What misconceptions?
 - i. We will be slaved by AI one day.
 - ii. AI only brings negative influences to human.
 - iii. Humans are losing jobs because of AI.
 - iv. AI is invading / will invade our privacy.
 - v. AI technology is progressing super fast (far faster than the real speed).
 - vi. AI is intelligence. AI has the same logic/emotion structures with the human.

3. Transformational Motivation

- a. Supporting intrinsic interest & identity

- b. They probably won't be so mad at us since we are not convincing them anything
- 4. Additional Components of Context
 - a. Middle class
 - b. Access to smart devices (iPhone, iPad)
 - c. All culture/region
 - d. English content
 - e. They might be reading Pamela's book
 - f. Not for formalized structures
 - g. They care much about safety and/or their responsibilities.
 - h. They read propaganda about AI.
 - i. They are the majority in using technology.

3. How should players be different after playing your game?

Knowledge + attitudes + perceptions

1. Have a more in-depth knowledge of how AI works
2. Understand the benefits they could bring and they have brought
3. Be able to tell the risks and have a basic idea of how can we stop it from going wrong
4. Aware of the measures humans have to take in order to develop AI in a human-friendly way <- Don't think this is necessary. Our project's goal is to improve players' attitude toward AI.
5. They should have better educated opinions toward AI. (Which means more objective, friendly criticism, etc.)
6. They should feel AI more acceptable in their life.

After game: player could explain AI to friends and family

4. Why aren't your players already transformed?

Barriers:

1. Motivation I think people do not have the motivation to learn them or to use them, just like they already get used to everything in their life.
2. Access I think people do not have the access to these technology, like the Tesla is expensive and the application are not so close to their daily life.
3. Unfamiliar I think people are not familiar with these technology which leads a conclusion that it is hard to persuade people something about AI.
4. Misconception
The misconception prevent them from listening to the truth.
5. Fear
 1. A lot of research and readings needed
 2. Too much unrealistic/spooky media contents - news/sci-fi
 3. It's overwhelming
 4. It's little known
 5. We need more research

5. What is essential to include in the game to transform your players?

Domain Concepts

1. Definitions
 - a. Quote from the AI100 2016 report: Artificial Intelligence (AI) is a science and a set of computational technologies that are inspired by—but typically operate quite differently from—the ways people use their nervous systems and bodies to sense,

learn, reason, and take action. While the rate of progress in AI has been patchy and unpredictable, there have been significant advances since the field's inception sixty years ago.

2. Technologies

- a. Computer vision
- b. AI planning
- c. Deep learning
- d. Natural Language Processing
- e. Automation
- f. Machine learning
- g. Reinforcement learning
- h. Collaborative systems

3. Types

- a. Weak → ANI (narrow) - where we are right now
 - i. designed and trained for a particular task
 - ii. E.g. Siri
 - iii. E.g. Deep blue → IBM chess-playing computer
- b. Strong → AGI (general)
 - i. unfamiliar task → find a solution without human intervention
 - ii. generalized human cognitive abilities
- c. Super → ASI (super)

4. Applications

- a. Healthcare
- b. business
- c. manufacturing
- d. education
- e. finance
- f. law
- g. Transportation
- h. Environmental
- i. Agriculture

5. Concerns (here quote from Stephen Cave)

- a. near term - immediate or imminent challenges
 - i. privacy
 - ii. accountability
 - iii. algorithmic bias
 - iv. safety of systems that are close to deployment
 - b. long term - less certain
 - i. wide-scale loss of jobs
 - ii. risks of AI developing broad superhuman capabilities that could put it beyond our control
 - iii. fundamental questions about humanity's place in a world with intelligent machines
6. And what? (still quote from Stephen Cave)
- a. we should consider safety, security and ethics as early as possible, and bake these into the technologies we develop
 - b. if regulatory measures make this a requirement, more funding will go to developing transparent systems, while techniques that are powerful but opaque may be deprioritized.
 - c. The decisions we make now, for example, on international regulation of autonomous weapons, could have an outsized impact on how this field develops. A firm precedent that only a human can make a 'kill' decision could significantly shape how AI is used — for example, putting the focus on enhancing instead of replacing human capacities.
 - d. the decisions we make now, in terms of research priorities and governance, are likely to have a major influence on the trajectories of AI — now and far into the future.

6. Who knows what you don't know you don't know?

Who are our Subject Matter Experts?

- Pamela: Credibility, Expertise, Reference

She has interviewed many computer scientists, spent her whole life recording her witnesses. She has a unique perspective coming from a English background.

Most fitting collaboration pattern: Advisor

- AI researchers at Carnegie Mellon: Credibility, Expertise, Interpretation

They have access and understanding to the newest technologies of A.I. in the academia

Most fitting collaboration pattern: Consultant

7. What can you learn from what others have done?

Prior Works:

1. Related Interventions

a. Films:

- Ex machina
- Her
- Blade Runner
- Ghost in the Shell
- Big Hero Six
- Bicentennial Man

b. Games

Detroit: Becoming Human
Choice of Robots
Subsurface Circular
Florence (mechanics and storytelling style)
Larp games <https://www.theverge.com/2019/2/1/18185945/live-action-roleplaying-larp-game-design-artificial-intelligence-ethics-issues>

c. Books

i. Pamela's Books

1. Machines who think
2. This could be important

ii. Life 3.0: Being Human in the Age of Artificial Intelligence

iii. Homo Deus - Yuval Noah Harari

d. News articles

Initial observations for interventions in films/games genre:

- Tackle interesting topics on the subject of A.I.
- Many focus on the far future
- Some make artistic alterations to dramatize the situation.
- Generally more interest in representing AI with a human-like form
 - Exceptions include Her and 2001: A Space Odyssey
- Some dramatized stories could be the cause of fear towards AI from the general public

2. Supporting Research

a. Research Papers on Technology Development

b. Homo Deus

c. AI100 <https://ai100.stanford.edu/>

d. Future of Intelligence <http://www.lcfi.ac.uk/>

e. Future of Life <https://futureoflife.org/>

8. How will you measure your game's impact?

Questions to think about:

1. Does the game change players in the intended ways?
2. How far does that change transfer beyond the game?
3. How long does that change persist

What we could possibly do:

1. Track player actions
2. Survey player intention and disposition
3. Test the player
4. Incorporate surveys as part of the game mechanic (e.g. Make a choice at the very end)

And?

1. They might develop more interests in researching aspects of AI by reading Pamela's books.
2. They start to talk about AI in a more neutral way in casual conversations
3. They possibly will care more about AI and that could lead to a less opaque system
4. They could probably become early adapters for
 - a. Self-driving cars
 - b. Physical assistance for elder care