Designing a Feminist Alexa

An experiment in feminist conversation design



Contents

| Introduction | 4 |
|---------------------------------------------------------------------------------------------|----|
| Approaches to Diversity & Inclusion | 6 |
| Fellowship Overview | 7 |
| Workshop Design | 8 |
| Day one Context Purpose Persona Creation | 10 |
| Day two Refining Ideas Storyboarding Conversation Design Idea generation | 12 |
| Day three Prototyping Presenting Reflecting | 14 |

| Protoypes | 16 |
|---------------------------------------|----|
| Conversation Design Without Coding | 20 |
| Feedback | 22 |
| Conclusion | 24 |

Introduction

"...we had talk enough but no conversation; there was nothing discussed."

- Samuel Johnson

Ual creative computing institute

The UAL Creative Computing Institute fellowships represent a substantial part of the Institute's annual public programme which exists to connect students, practitioners and researchers at the

University of the Arts London with an international community of creative computational professionals, artists and activists.

This report aims to give an overview of what the programme involved and how the first UAL Creative Computing Institute's fellowship engaged with the UAL community and the broader technology and arts industry.

When facing the task of how to design a workshop that would allow participants to imagine and prototype feminist conversational interfaces, one question kept nagging at the Feminist Internet team: WTF is a feminist conversation? What kind of exchange between a human and a piece of technology would qualify as 'feminist'? How could the feminist nature of the exchange be measured by the designers of the technology? Could there ever be a feminist response to 'Hey Alexa, what's the weather like today?' Being awarded the inaugural fellowship at <u>UAL's new</u>

<u>Creative Computing Institute</u> was an opportunity to ponder these difficult questions through practice, and to challenge ourselves as designers of education and technology to come up with some answers. The broad context for the project is the gendering of personal intelligent assistants (PIAs) which are so often characterised as female. As <u>Jaqueline</u> <u>Feldman</u> says,

"By creating interactions that encourage consumers to understand the objects that serve them as women, technologists abet the prejudice by which women are considered objects." ¹

As well as this female characterisation, the way PIAs are programmed to <u>respond to abuse</u>

¹Feldman, J. (2016) *The Bot Politic*, The New Yorker: <u>bit.ly/AlexaReport01</u> The fellowship programmed launched with a seminar where we set the issues in context, and heard from industry experts

Alex Fefegha (Founder and Head Creative Technologist, Comuzi)

Josie Young (Feminist Al Researcher)

Elena Sinel (Founder, Acorn Aspirations & Teens in Al)

Check out the seminar on YouTube: <u>bit.ly/AlexaReport1</u>



- and yes, people actually verbally abuse these devices as though they are real women² - is problematic. Responses that are coy, or even flirtatious, or which simply 'don't compute' abusive remarks are woefully inadequate. At Feminist Internet we expect better than this, and believe that PIAs should educate as well as simply comply. We want to see PIAs that reflect interesting, nuanced understandings of gender, that respond adequately when they receive verbal harassment, and which support the advancement of internet equalities.

² Fessler, L. (2017) We tested bots like Siri and Alexa to see who would stand up to sexual harassment, Quartz: bit.ly/AlexaReport02 Another context is the rise of voice technology, which is predicted to shift the landscape of search and e-commerce in the coming years.³ Google and Amazon voice assistants are colonizing the world of electronic devices like Google Home, Amazon Echo, smart speakers, smart displays, phones, headphones TVs, cars, laptops and wearables, conditioning people to use voice in a way that becomes more and more natural. So. it is going to become more and more common to talk to and be listened to by the devices that surround us, and have consumer behaviour

³ McCue, TJ. (2018) Okay Google: Voice Search Technology And The Rise Of Voice Commerce, Forbes <u>bit.ly/AlexaReport03</u> driven by what they 'say' - which is, of course, shaped by the data they have collected about us. As the voice 'revolution' unfolds, we see a fantastic opportunity to build conversational interfaces that have drivers beyond commerce - drivers around positive social change and wellbeing. In other words, we want to imagine technologies that can empower their users rather than just help them search and shop.

So, with the help of our learning partners, we gathered 40 UAL students and several Alexas together for two intensive 3-day workshops, with a mission to imagine and prototype personal intelligent assistants that would meet a meaningful human need, and embody feminist values. Here's how it happened...

Approaches to Diversity and Inclusion

"the inaugural CCI Fellowship has been awarded to the Feminist Internet project in recognition of their innovative approach to exploring the development of inclusive emerging technologies."

- Ben Stopher, Dean, UAL CCI

In line with the UAL Creative Computing Institute's commitment to diversity in technology and digital inclusion, we took several steps to ensure the programme celebrated diversity and was inclusive. The workshop facilitators, learning partners, speakers and panellists represented different ages, ethnicities, nationalities, genders, gender identities and values, which we felt was important so that students could recognise themselves in the programme, and explore the topic from different perspectives. We required no prior technical experience, and made sure that the language of the call for applications and the

Staff Briefing

The main goal of the CCI fellowships is to engage the UAL learning community in active project work and co-production in the field of computational practice. In order to do so, it is crucial to keep UAL staff informed about opportunities that students can benefit from, and therefore, the Institute is committed to create spaces where UAL staff can be involved too.

In our efforts to spread the word about the programme, on the 8th of October 2018, we held a Staff Briefing session at Camberwell

application form was simple, jargonfree and friendly. We welcomed students to approach us if they felt unsure they would fit in:

"We believe it's very important to have a diverse group of people taking part. Everybody's welcome! If you're thinking: "That sounds great, but it's not for me because x or y", our email is open".

By nature, the workshops explored issues of diversity, tackling gender bias both in the technology industry and in algorithms, and encouraged students to look for ways to mitigate against this. We emphasised the

⁴We gave Patricia Hill Collins' 'Matrix of Domination' as a reference here. See Collins, P. H. (1990), 'Black Feminist Thought in the Matrix of Domination' in *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*, pp.221–238. College of Arts. It was a great opportunity for course leaders and researchers at UAL to find out more about the programme and how their students could engage with Designing a Feminist Alexa opportunity.



intersectional nature of feminism, explaining that gender oppression often intersects with other forms of oppression, such as capitalism, or colonialism.⁴ Aspects of the workshop that focused on Human Centred Design placed emphasis on being respectful of people from different cultures and backgrounds, and the recognising the danger of falling into a 'sympathetic' rather then empathetic role, when trying to solve social problems. Chimamanda Ngozi Adichi's Ted Talk, The Dangers of the Single Story was invaluable in this regard.⁵

⁵Ngozi Adichie, C. (2009) The Danger of a Single Story, TED: <u>bit.ly/AlexaReport05</u>

Fellowship Overview

Programme

- 1 public seminar
- 2 three-day workshops
- 2 key learning partners
- +200 UAL students and staff
- +100 industry people
- 8 feminist Alexa prototypes
- 1 public prototype launch event

Applicant data

- 53 applications
- 42 participants
 - → 12 first generation entrants to University
 - → 12 EU students
 - → 18 International students
 - → 12 Home (UK) students



Workshop Design

The tricky question of 'WTF is a feminist conversation' challenged us to consider how we would measure the success of the workshop. How could we ensure that we participants were able to evidence the use of feminist values in the design of their PIAs, and the conversations they imagined them to have with their users? We felt that having a framework to measure their work against was necessary, and discovered that the perfect thing was already out there. Feminist AI researcher Josie Young has developed a Feminist Chatbot Design Process⁶, which aims to help designers **"make your chatbot better by** ensuring it doesn't knowingly or unknowingly perpetuate gender inequality." We took Josie's framework, simplifying and modifying for our purposes, and Feminist Internet Visual Designer Conor Rigby treated it graphically, so there were visual 'tags' representing each standard:



Rather than design a PIA for a 'universal' user – can you identify a user that can be empowered through a feminist PIA?



How are you planning to depict or represent your chatbot to your users? Purpose

Considering the needs of your identified user, what is the purpose of the feminist PIA?



The conversation is the primary interface between the human and the PIA. It's how the user will decide whether the PIA is effective, so the design needs to be carefully crafted. What types of responses would embody feminist values? How can you get the PIA to speak with a feminist voice? Team Bias

We all come from places and experiences that have shaped our thinking and perspectives, and we tend to unconsciously embed these perspectives in the things that we make. The risk of not reflecting on these questions is that your PIA may reinforce negative stereotypes about particular groups of people, which could be harmful to your users. How might we embed bias in the design?

We then mapped the standards to each stage of the workshop, so that participants had something to guide their thinking. For their final presentations, we encouraged the students to articulate how they had used the standards in the development of the ideas \rightarrow

⁶ Young, J. (2017) Designing Feminist Chatbots - Research Summary, PDF: <u>bit.ly/AlexaReport06</u>

Day 1 Persona creation & team bias reflection Who are you designing for?





Day 1

Setting context establishing purpose creating personas beginning idea generation

1 Check-in

3

The brief

The mission for each group was to create a Personal Intelligent Assistant (PIA) that meets a meaningful human need, and promotes equality for women or other marginalised groups. <u>Full_doc</u>

"Think of your PIA design as a briefing to a team of programmers who can bring the design to life".

2

Workshop Philosophy

Early on we shared our workshop philosophy to set the tone for the 3 days:

Cooperation not competition

To avoid the competitive hackathon mindset, we encourage participants to think of themselves as one 'agency' for the time they are together. Everyone is responsible for everything.

Nobody left behind

We encourage participants to look after each other - if someone can't be present for any reason, their peers are responsible for making sure they don't miss out.

Constructive criticality

Engaging with systemic social injustices

can be overwhelming, so we encourage participants to remember they are contributing positively just by showing up. Using our collective knowledge of problems to enact positive change can help overcome anxieties.

Be present & listen

Being present and listening to each other, especially when groups are presenting is crucial for creating a respectful environment and a spirit of sharing. Difficult to achieve, but very worthwhile!

Trust

4

Perhaps the most important of all - we tell participants that they must trust us, themselves, each other, and the creative process. This helps when things seem daunting or unclear.

PIA Standards

Adapted from Josie Young's Feminist Chatbot Design Process, we introduced a set of standards that would allow us to check that we were embodying feminist values into the design process. Full doc

o 🖌 🤖 🖘 🔊

Persona creation



5a

Participants were asked to ask themselves who they might design a PIA for - who might be empowered or benefit from their PIA?

" Based on a mixture of real insights and fiction, personas are a way to model, summarize and communicate insights about an audience you are designing for. They aid in ensuring that you are designing something of value for your audience group."

5b

Empathy



Participants were asked to cultivate empathy (not sympathy) when developing their personas. Following Chimamanda Ngozi Adichie we asked them to avoid telling 'single stories' about their users.

"Empathy is our ability to see the world through other people's eyes, to see what they see, feel what they feel, and experience things as they do."



Bio/situation:

Francis is an undergraduate student, studying BA graphic design at an art school in London and she/he just started the final year which she/he finds very overwhelming.

Francis

Age: 22

Location: from Asia

Occupation:

Graphic Designer, international student in the final year at uni in London



Bio/situation:

Agnes has a very good sense of humour. She is been retired for 15 years. Her husband is passed away and her family is living in another country. Lately she's finding problems doing daily life tasks and walking through the stairs of her house.

Agnes

Age: 75

> Location: London

Occupation: Retired

6

Check-out

Day 2

Ideation Storyboards Conversation design



2

Ideation speed dating



One of our favourite activities - taught to us by the Pop Up Agency.⁷ Brilliant for reinforcing the 'one agency' mindset - everyone built on everyone else's ideas. Working in silence, we rotated in groups for 30-second bursts generating written and drawn ideas for each proposed PIA.



3

Storyboards



Participants were asked to refine their ideas by thinking about their user in a specific situation and creating a storyboard to describe it. They were asked to consider the user's context, problem, interaction with the PIA and the change that resulted from it.

"A storyboard is a tool that can help visually predict and explore the user experience with a product. It visualizes how people would interact with a service or app."



⁷The Pop Up Agency: https://thepopupagency.co/



4

Conversation Design



Alex introduced the principles of conversation design, reminding participants that their role in this workshop is the role of a conversation designer.

"The conversation is the primary interface between the human and the PIA. It's how the user will decide whether the PIA is effective, so the design needs to be carefully crafted. What types of responses."

- → Define what your conversation is about
 - → Give it a personality

Cheatsheet Highlights

- → Don't pretend to be a human
- → Great conversations take turns

6

Check-out

13 Designing a Feminist Alexa Day 2

Day 3

Prototyping Pitching Reflecting Deliverables

1

Deliverables

The final brief:

Tell the story of your design process in 8 slides, showing how you used the PIA standards to inform the design process



Prototyping

2



Alex introduced each group to Storyline, a platform that allows UX designers to prototype Alexa Skills - walking them through how to prototype a conversation and finesse it using speech synthesis markup language (SSML). ★ Participants voted this as one of the most popular elements of the workshop

Pitching

3

After a furious final scramble to get things finished, each group presented a pitch deck and did a live demo of their conversation. This went 100% smoothly for every group. Honest.





Reflecting

4

The final check out was a chance to share how everyone was feeling after an intense but productive 3 days. Apart from exhaustion, there was a shared sense of community and achievement. Marina Dragzilla's final check out was the icing on the cake though - you can read it in full on the next page.



The prototypes

Pany



Team Bias

Has your team reflected on how your values and position might lead you to choose one option over another?



How will your PIA remind the user it's not human?

Pany was designed in line with Feminist PIA standards, considering the needs of our identified user and reflecting on questions of our team bias to ensure we did not support negative stereotypes.

Pany: If you want me to stop, just say "Pany stop", don't worry I won't be offended because I am a bot"

Bud

bit.ly/budprototype

The Conversation Design standard helped us think about how Bud sounds - The pitch of bud's voice can be adjusted with a slider function. Instead of 'choosing a gender', the user can simply choose the sound of a voice they feel most comfortable with. **Bud:** You say you feel terrible. Are you sad, angry or frustrated?

Sara: Frustrated.

Bud: Usually, frustration occurs when we want to change something. What would you like to change?

Sara: I think… I just want to apologise.



Conversationa Design

What's the tone of voice - physically and metaphorically?





If it receives abuse, how will the PIA respond?



Page

bit.ly/pageprototype

Following the PIA conversation design standard, we carefully considered how Page would respond to abuse. **User:** For F**** sake Page - that's not it!

Page: Please be polite. I am not a human but abuse is not acceptable in any way or form.

Essy

bit.ly/essyprototype

The PIA standards we followed asked us to reflect on whether the PIA should be gendered. We decided not to assign a gender to Essy, because being sympathetic to the fluidity and complexity of gender is fundamental to its purpose.



Will you assign a gender to your PIA? Why?

Essy: Hello, I'm Essy, a robot! My creators feel that sexuality and sex are a part of the human experience and have designed me to be knowledgeable and informative about this topic.

Pillow

bit.ly/pillowprototype

"The values embedded and programmed into me, aim to empower and educate my user"

B(o)(o)

bit.ly/booprototype

The PIA standards ask us to have a clear purpose in mind one that meets a meaningful human need. Boo is designed for teenagers of all identities experiencing puberty where a lot of change is happening physically and emotionally. Boo is here to answer taboo questions and comfort the user by ensuring them that



How will your PIA remind the user it's not human?

Pillow: My tracker has noticed you had a disturbed sleep last night, would you like some advice on getting to sleep this evening?

Sam: No f*** off!

Pillow: Please don't swear, I am not human but I am here to help. I understand you're tired, however, no one needs to hear that.

Design & Representation

How will your PIA remind the user it's not human?

there is "no such thing as a weird question"

Boo: Hi I'm Boo. Do you need assistance?

Silver: So uh I have a weird question for you...

Boo: Nothing is too weird for me I'm a Bot, what's on your mind?



How will your PIA remind the user it's not human?





If it receives abuse, how will the PIA respond?



Purpose How will your PIA remind the user it's not human?



HiFuture

bit.ly/hifutureprototype

HiFuture is designed for students that are uncertain, confused and overwhelmed with the amount of future options they receive from the university...we don't want students to feel pressured by being a part of a "rat race" to find a job after graduation.

Design & Representation

What's the tone of voice (physically and metaphorically)?

Francis: I just checked my inbox and Job Board. Can you tell me more about them?

HiFuture: Sorry, cannot find anything. Can you specify?

Francis: You are f***ing
useless.

HiFuture: Good luck with that language at your interview.

Purpose

Considering the needs of your identified user, what is the purpose of the feminist PIA?

้ Hi FUTURE



Egami

bit.ly/egamiprototype

Egami is an eccentric, informal and friendly PIA. It promotes self-expression and selflove to the user. It is open to everything that is queer.

Alex: There is a stupid picture of me that I hate and everyone can see it

Egami: Should I show a



What's the tone of voice (physically and metaphorically)?

picture of you where you are amazing?! as usual I'd say!

Alex: No it is useless

Egami: Tips from a drag queen then? could it help?

Alex: Go for it

Egami: "If you can't love yourself, how in the hell are you gonna love somebody else! Can I get an amen?"



Will you assign a gender to your PIA? Why? In what waysmight this reinforce or challenge gender stereotypes?









Conversation Design without Coding

One of the major challenges was that we wanted to offer the workshop to as many students as possible, including those who had little or no coding experience. It was a great opportunity work with Alex to ensure there was the right balance between accessibility and our goals to equip students with the practical technical skills and build their confidence around voice technology. →

"When I got the brief, I was unsure of the best way to tackle it, but once I understood the Feminist Internet's goal of building tangible prototypes, I began to ideate. I thought, how could I get 40 students with no prior experience of voice technology, Al or even UX design to see themselves as Voice UI designers for three days? I had to hack a solution that would allow students to make voice prototypes without a line of code, making sure they would work on an Alexa voice simulator. My goal was to use a post-production phase to turn the prototypes into mini beta Alexa Skills. We explored many ideas including building

HTML voice prototypes and recording voice, but by the good grace of the creator, we were able to find a voice prototyping tool, Storyline, although this actually pivoted during the project - which caused major anxiety. In the end, post-production was a breeze. I rewrote some scripts so they could be better presented, and was happy that some of the custom sounds the students had came up with worked really well."

- Alex Fefegha



Feedback

Gareth Foote,

Course Leader for BA (Hons) User Experience Design at London College of Communication

Our students were invigorated by the rapid/iterative idea generation and the development of a working prototype within the frame of a socially engaged and critical design challenge. The opportunity to take part in a focussed and collaborative design sprint with the Feminist Internet was invaluable

Will the workshop help you on your course? How?

The workshop was very much a moment of enlightenment for me. I now have a clearer vision of how I want to pursue my path as a designer

Yes...it taught me to develop a way of thinking

Yes, for the development of my projects in terms of digital literacy and human-computer interaction. The feminist PIA standard briefs were extremely useful - the steps in the process will be reused in my own work.

I feel I will refer to the standards used in the workshop and consciously try be a part of more ethical design (not that I feel i am creating unethical work atm!)

Alex Fefegha,

Head Creative Technologist, Comuzi

I am proud of the students, as they embraced new concepts and ways of working/thinking with the aim of coming up with a conversation design and voice prototype in just three days. I hope some of these prototypes can be accelerated, I really do! Big up the Feminist Internet gang for the amazing work they do xxx

How was your experience of taking part in the workshop?

I enjoyed the workshop very much and am happy that something like this, which was so wonderful, was free! As learning should be <3

Amazing, encouraging, supportive environment.

The challenges faced within the workshops required me to reevaluate my approach to these topics in a new, hopefully more considerate way

You see how effective can design be to address social problems, and not just in an utopian world.

Staff feedback Student feedback

Josie Young, Feminist Al Researcher

It was so impressive to see how innovative the students' prototypes were, and how deeply they had considered the many feminist and ethical issues associated with this technology. I was really proud to see how far the students were able to progress with resolving these issues in their designs, using my design framework as an overarching guide.

Did the workshop meet your expectations?



What advice would you give to someone willing to be part of a UAL Creative Computing Institute or Feminist Internet workshop?

Do it. It would benefit about every person on the planet. I've already recommended it to people on my course and discussed it with my friends.

I would definitely advise them to take part in the workshop it has been the highlight of my academic first year so far!

Whether you believe in changing the world or not this workshop will help you and everyone else.

JUST DO IT.

Anything else :)

Thank you to the creative organizers of this workshop. So badass. So bomb

Thank you for being so generous, caring, and patient. I can only embrace all the values represented by Feminist Internet and Comuzi. I loved working with you all and hope to do it again in the future!

I am very grateful for this experience and hope for the workshop to be developed in other UAL colleges and beyond UAL in the future, as it is necessary to get students to think about the ethics of the web to ensure a good future for the Internet for all

Thank you so much for this experience. It really has been amazing

Will the workshop help you progress your creative career? How?

I hope to apply the same feminist values to everything I make/do in the future

It opened my eyes to the possibility of working digitally. Before I was quite put off the topic of coding and general UX design, which have connotations of marketing and business. I now know that is not the only route

The feminist methodology is an ethical tool that should be applied in all artefacts

The way I work and develop ideas has changed for the better since doing this workshop How would you rate each day from 1 - 10?

Day one **9.3**

Day two **8.75**

Day three 9.2

Marina Dragzilla's check out

For many people gender and technology are things that are completely separate. Many people don't understand how gender can impact technology, so changing this is one of my quests, and I think I found the best group ever to be friends with because they have this quest also... and you're now taking it to your practice as students and professionals, so I just want to say thank you so much. It's very heartwarming to see that people are interested in this and it was very rich to watch the whole process and to see these outcomes. For me it could not have been more of a success, and I hope that in the queer future we're building together there will be way more discussion of gender and technology and you can take this to other places you go



Conclusion



Exploring the question of "WTF is a feminist conversation?" through creative practice, with a group of extraordinary young artists and designers was, in itself, like having a fascinating, challenging but ultimately rewarding conversation. Over two 3-day periods, we talked to imaginary users, Alexa, researchers, educators and each other. We brought our diverse perspectives about feminism(s) to bear on the design of technologies that could engage their users in conversations that might improve wellbeing, reduce loneliness, boost body-image, deliver nuanced sex education, or develop self-knowledge. We realised that there may not be a feminist response to the question "Hey Alexa, what's the weather". What this reveals is not that feminism is 'lost for words', but that Alexa isn't designed to elicit feminist conversations. In fact it is not designed to elicit conversations at all.

As temporary conversation designers, we tried to bring a clearly articulated set of feminist values to the design process so that we could weave them into the fabric of the technologies we were inventing. We knew that, in an ideal world we would have had more conversations with the people we were designing for - conversations that would help us understand their challenges and aspirations. In the end, what happened over this fellowship was part of a bigger 'feminist conversation', but by creating a discursive, transformative environment, and producing real world prototypes, we took as step towards making the conversation more than just talk. ♥

Resources

Downloads

Feminist Internet PIA Standards, Feminist Internet (PDF) bit.ly/feministpiastandards

Feminist Chatbot Design Process, Josie Young (PDF) bit.ly/designingfeministchatbots

Blog Posts

Designing a Feminist Alexa: An Exercise in Empathic Design, Rhiannon Williams Coming soon

Designing a Feminist Alexa: A Creative Learning Programme, Felipe Petik Pasqualotto Coming soon

Videos

Designing a Feminist Alexa, Project overview Coming soon

Designing a Feminist Alexa Seminar bit.ly/feministalexaseminarvideo

Designing a Feminist Alexa Launch bit.ly/feministalexalaunchvideo



www.feministinternet.com enquiries@feministinternet.com

Twitter: @feministintrnet Instagram: @feministinternet



www.arts.ac.uk/ creative-computing-institute

> Twitter: @UAL_CCI Instagram: @ual_cci