

### EPSRC Network+: Social Justice through the Digital Economy Call for Collaborative Proposals: Application Form

We are seeking to fund proposals for Not-Equal's second call for collaborative proposals. For full guidance please see details of the call on the Not-Equal <u>website</u>.

Pilot research projects can be between 6-8 months in length. We expect to fund up to 7 projects of up to £40k (80% FEC) for this funding call (will consider shorter projects with smaller budgets).

Please submit this form before the deadline of **5pm**, **29**<sup>th</sup> **May 2020** to <u>notequal@newcastle.ac.uk</u>, with the subject line 'Application Submission'.

Applicants will be advised on the outcome of their proposal by the 30<sup>th</sup> July 2020.

GENERAL INFORMATION	
Lead Applicant (PI): Alessio Malizia Email address: a.malizia@herts.ac.uk Job Title: Professor of User-Experience Design and Chair of the Design Research Group Department: School of Creative Arts Organisation: University of Hertfordshire	Co-Investigators (names and organisations): Dr Silvio Carta, School of Creative Arts, University of Hertfordshire Email address: s.carta@herts.ac.uk Collaborative Partner(s): Cambridge Spark, WeandAI Project Title: MACBET - MAChine learning Bias and Ethics Toolkit Project Tagline: "Design Fictions to mitigate Social Injustice in possible Futures".

WHICH CHALLENGE AREA AND TOPICS DOES Y	OUR PRO	DPOSAL RESPOND TO?	
CHALLENGE AREA	X	ΤΟΡΙϹ	Х
Algorithmic Social Justice	х	Recognition	Х
Digital Security for All		<b>Re-distribution</b>	
Fairer Futures for Business and Workforce		Enablement & Radical Trust	
Topics across challenge areas		Proactive Resilience & Reparation	

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## 1. SUMMARY

Please provide a summary of your proposed research project. Please include an overview of the aims, impact, innovations, method, team and how it aligns with Not-Equal. This section should be understandable to the general public (<400 words).

In the so-called 'prime-lining scandal', Amazon made free same-day delivery available to Prime service subscribers in the US but only in some areas. Customers in predominantly African American residential areas were excluded, sometimes even when they closely bordered predominantly white areas which were included. Amazon subsequently chose to disregard its algorithm and make free same-day delivery available across all areas.

Algorithmic social justice—designing algorithms including fairness, transparency, and accountability can help expose, counterbalance, and remedy bias and exclusion in future machine learning-based decision-making applications. We propose to tackle algorithmic social injustice in the society by developing a Design Fiction Toolkit (DFT).

Design fiction is an interdisciplinary method that can allow participants (e.g. product managers, developers, NGOs) to generate scenarios (e.g. storyboards) to expose potential bias and reflect on mitigation strategies. By using scenario-based design, design fiction prototyping can provide opportunities to reveal aspects of how technology will be adopted. Therefore, design fictions are a tool to investigate implications, ramifications, and effects of technology in the future.

Although it is not easy to predict the future, we know that in the coming decade high-tech products, such as smart drones or driverless cars, are going to rely on machine learning. Nevertheless, machinelearning algorithms will almost certainly harbour some form of implicit bias. For example, Caliskan et al.'s academic paper, "Semantics Derived Automatically from Language Corpora Contain Human-Like Biases," published in the leading academic journal Science, described an autonomous intelligent agent associating words like "parents" and "wedding" to feminine names while career-related words like "professional and salary" were assigned to men. Several studies exploring stereotyped data used to train machine learning applications provide evidence that the word-associating agent flawed strategy may be used to train a CV-analyser service with consequences on gender balance.

The question, therefore, is:

How can we uncover and mitigate bias in novel machine learning (ML) applications during (not after) the design process? Another way to put it is: How can ML algorithm designers and engineers developing these novel applications ensure that they are not unwittingly discriminating against or excluding certain groups of people?

Our research project will achieve this aim through the following objectives:

- 1. We will design and implement a Design Fiction Toolkit that helps uncover algorithmic bias at design time.
- 2. Improve Social Justice in ML training programmes by introducing our Design Fiction Toolkit.
- 3. Evaluate the toolkit in terms of benefit, usability and acceptability.

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## 2. HOW DOES YOUR PROPOSAL ALIGN WITH THE THEMES AND OBJECTIVES OF NOT-EQUAL?

*Please describe how your proposal responds to the second call for collaborations and how does your proposal enhance a cross-disciplinary way of working. (<300 words).* 

Our proposal is centred on <u>algorithmic social justice</u>, stimulating reflections and actions focused on the fairness of machine learning solutions embedded in <u>socio-technical systems (e.g. decision-making systems)</u> that might have disruptive implications for people and society at large.

We aim at <u>developing practical responses to social justice issues</u> by experimenting a new <u>approach to</u> <u>design socio-technical systems that help meet social aspirations and goals</u> in form of a Design Fiction Toolkit that will:

• Help practically minded developers apply social justice principles at design time during the ML development pipeline and to signal to researchers where further work is needed.

• Inform the discussion and recommendations to anticipate the impact of Machine Learning applications embedded in Socio-Technical Systems by involving communities such as the WeandAl network (fostering awareness and understanding of Al in the Society) and Cambridge Spark (offering Data Science and Al training to top companies).

We will demonstrate <u>how our proposal enhances a cross-disciplinary way of working</u> by using a Design Fiction approach (see "Design and Methods" in section 3), which is an interdisciplinary method that can allow participants (e.g. product managers, developers and data scientists involved by Cambridge Spark) to experiment with scenarios to expose potential bias and reflect on mitigation strategies. By using Scenario-Based Design (inspired by the WeandAl community), Design Fiction can provide opportunities to reveal aspects of how technology will be adopted being a tool to investigate implications, ramifications, and effects of technology in the future.

Through the partners involved in this project, Cambridge Spark, providing training for future Data Scientists and Machine Learning engineers and WeandAI, an NGO whose primary mission is to increase public awareness and understanding of AI in the UK, we will demonstrate how society can benefit from our research programme on Design Fictions for <u>Algorithmic Social Justice</u>.

### **3. CASE FOR SUPPORT**

Please describe your proposed project. This should include your aims and objectives, the design and method of your project, context, background literature and data to be collected. Please also indicate why this research is important and for whom (<1000 words).

Nowadays, we are relying on Machine Learning (ML) algorithms to either make or support operational decisions. In the coming decade, high-tech products are going to rely heavily on ML. However, researchers and practitioners have reported difficulties in anticipating the future behaviour of ML algorithms without knowing what further data will be used for their training. Moreover, developers usually are not entirely aware of how to reflect on social justice while designing ML algorithms.











The question, therefore is, according to the Not Equal Challenge in Algorithmic Social Justice: <u>What kind</u> of tools and techniques can help those designing new systems to ensure social justice?

# Context and Background

Algorithmic bias has been recognised as a relevant issue in ML applications. For example, IEEE and ISO are currently developing standards which cover algorithmic bias, and a new Joint Technical Committee (ISO/IEC-SC42) has been established for the development of standards related to AI. However, mitigating algorithmic bias is far from an easy task. In 2015, a developer highlighted that Google's visual identification algorithm could not accurately distinguish between Black people and gorillas. Three years later, Google had simply switched off the ability to search for gorillas.

Literature on mitigating algorithmic bias has been reported as speculative and rarely based on concrete evidence. Moreover, there is little research on how mitigation strategies work in practice (Morley et al., 2019), for instance, due to the wide adoption of proprietary tools. The current literature is mostly focused on the US context, and few studies focus on UK or European contexts, where governance and circumstances are often quite different.

A first step towards mitigating algorithmic bias consists in tools to help elicit social values and proethically handle value pluralism. Examples of such tools are the Guide to the Ethical Design and Application of Robots and Robotic Systems by the British Standards Institute, or the Responsible Research and Innovation (RRI) methodology employed by the European Commission's Human Brain Project. However, most of these tools and methods are not easily actionable in practice. To address such issue, several research projects tried to propose actionable methodologies. The EPSRC-funded UnBiased project developed the Fairness Toolkit, to facilitate dialogue around algorithmic bias and fairness focused on recommendation systems (a sub-category in ML). The Center for Democracy and Technology created a Digital Decision Tool, consisting of an interactive flowchart designed to raise concerns regarding bias, fairness, and ethical issues during the development of algorithmic systems. Katell et al. developed an Algorithmic Equity Toolkit based on participatory design methods (Katell at al., 2020).

Discursive Strategies, such as workshops and discussion forums, are an interesting class of approaches to mitigate algorithmic bias, which guarantee humans to override automated decisions where necessary, dealing with situations in which machines would struggle (Rovatsos, et. al, 2019). Among Discursive Strategies for ML, a novel approach is introduced by Design Fiction, an interdisciplinary method to allow participants creating and reconfiguring concepts into scenarios to expose potential bias and reflect on mitigation strategies (Malizia, 2019). Design Fiction provides opportunities to reveal aspects of how technology will be adopted, becoming a conversation starter to discuss implications, ramifications, and effects of technology in the future.

## **Design and Methods**

We propose to create a Design Fiction Toolkit (DFT) to help ML developers uncover algorithmic bias at design time. The Toolkit will consist in a series of tools to support creators of new ML applications to reflect on ethical and social impacts based on the work and findings by Malizia (2019). In this project we will be researching existing datasets and ethical principles, conducting co-creation and co-design sessions with our partners, as well as testing the DFT to evaluate its benefits, usability and acceptability.

We will embed two main principles in the DFT: <u>Non-maleficence and Justice</u> (Morley at al. 2019). The first part of the DFT will be focused on the <u>Non-maleficence principle</u> defined as tackling issues of ethics and values potentially embedded in ML applications. There will be three co-creation activities focused on Reliability/Reproducibility (how ML apps work in a variety of scenarios), Data Quality/Integrity (avoiding socially constructed biases), and Social Impact (e.g. detrimental consequences for a relatively small numbers of individuals vs relatively minor consequences distributed across large subsections of society).

The second part of the DFT will be centred on the <u>Justice principle</u>, tackling issues of diversity and inclusiveness. There will be two co-design activities aimed at: accessibility and universal design

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(inclusivity) and designing for trade-offs between functionality and economics versus transparency considering society and democracy with minimisation and reporting of negative impacts.

The DFT will consist in using selected materials (storyboards, cards, etc.) in a series of group activities with at least three people covering different roles and knowledge (e.g., a product manager, an ML developer, a NGO community member, etc.). Each part of the DFT will have variable duration (around 3-4 hours) and will be run either physically or remotely.

## Data to be collected

In WP4 (see section 7), we will collect data from contextual-interview sessions, focus groups with interviews and observations, data from empirical evaluations with recruited participants, and survey and logged data gathered over time (ethnographic observations). The data management policy will be implemented according to section 9.3.

## References

Katell et al. (2020). Toward situated interventions for algorithmic equity: lessons from the field. Proceedings of ACM-FAT\* '20 conference.

Malizia, A. (2019). Design Fictions to Mitigate Social Injustice in Possible Futures. Blog@Ubiquity, ACM Morley et al. (2019). From What to How: An Initial Review of Publicly Available AI Ethics Tools, Methods and Research to Translate Principles into Practices. Science and Engineering Ethics

Raji, I. D., Smart, A., White, R. N., Mitchell, M., Gebru, T., Hutchinson & Barnes, P. (2020). Closing the AI Accountability Gap: Defining an End-to-End Framework for Internal Algorithmic Auditing. arXiv preprint arXiv:2001.00973.

Rovatsos et al. (2019). Landscape Summary: Bias In Algorithmic Decision-Making: what is bias in algorithmic decision-making, how can we identify it, and how can we mitigate it?

## **4. RESILIENCE PLAN**

*Please describe how you would carry out your project with social distance measures in place. For example, deliver workshops via Zoom instead of in person (<300 words).* 

WP1 – Project Management – can be done remotely, project meetings can be done on Microsoft Teams which proved effective in the PI's institution. We will set-up a project group on Teams for the participants :UH and partners.

WP2 – Background Review – won't be affected by social distance measures. It will additionally include a review of online tools based on the recent document stem from the online meeting "How to do HCI research if your users are off limits?": <u>https://docs.google.com/document/d/1hWMBiskMxRn8iGs9-380Bjlfa3lioLedq8iPzQfGJCo/edit#</u>

WP3 – Toolkit Design and Development – will include a digital version of the materials (cards, storyboards, etc.) plus co-creation and co-design sessions run accordingly to the review of online tools carried out in WP2, for example the PI have had a successful experience running co-design sessions via Zoom.

WP4 – Testing – This WP is planned to start in the last 2 months of the project, so the severity of the social distancing risk is assumed to be low, nevertheless we plan to replace the Ethnographic Study with <u>Online Focus Groups</u> (on Zoom for example) run with a <u>Thinking Aloud</u> protocol plus we will use <u>Diary</u> <u>Studies</u>, a well-known method in Human-Computer Interaction research that collects qualitative information by having participants record entries about their everyday experience in a log, diary or journal about the activity with the toolkit being studied.









A/B testing can be conducted remotely by participants running the two versions of the App and following the SMACTR auditing framework (Raji et al., 2020 - reference in section 3) with the project team guidance online (via Teams or Zoom) if needed.

WP5 – Dissemination and Exploitation – The final event, in the unlikely event of social distancing still in place, will be run as a virtual conference following the experience for instance of this year's Festival of Ideas event ran as a virtual conference at UH.

### **5. INNOVATION**

Please explain the innovative aspects of the proposed research project (<150 words).

While some effort has been focused on auditing bias and ethics in existing technologies (e.g. EPSRCfunded projects unbiased - ep/n02785x/1 and reentrust - ep/r033633/1), we aim at implementing a Design Fiction Toolkit that can help Machine Learning (ML) developers to uncover and mitigate bias in novel ML applications during the design process before releasing such applications on the market and in the society with potentially harmful consequences (e.g. Social Injustice).

Design fictions are novel cross-disciplinary methods for designers, engineers and product managers, among others, to reflect about the impact of technology, products and services from a human perspective and link this to possible futures. Using Design Fictions as a tool to mitigate algorithmic bias has not been done before and will be used to investigate how Machine Learning applications will be adopted in the future.

## 6. NON-ACADEMIC PARTNERS

Please explain how your non-academic partners will engage with the project e.g. in-kind time, use of facilities, etc. (<150 words).

Cambridge Spark is a leader in transformational Data Science and ML training, career development and progression. It delivers gold-standard education from the cutting-edge of research and industry. Cambridge Spark will contribute about 20 days of staff time to the project through involvement in advocating and evaluating the use of the Toolkit during their courses. They estimate the total value of inkind support to be £3,000.

WeandAl is a Non-Governmental Organisation (NGO) that focuses on empowering people to make their voices heard about how ML should be used and controlled and encourage more people to get involved with or work in Artificial Intelligence. WeandAI will contribute about 15 days of staff time by informing the Scenario-Based Design and requirements for an ML application and evaluating the Design Fiction Toolkit using A/B testing (see section 7 WP4). They estimate the total value of in-kind support to be £5,925.



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### **7. SOCIAL IMPACT**

Please describe the expected social impact of your project (<300 words). This should be understandable to the general public. Please note that the community panel will consider and assess this section against the following criteria. To what extent does the proposal:

1) Consider and respond to the needs of a community (e.g. provide an example of the beneficiaries of your project and the value it would generate for them);

2) Help to overcome/reduce/avoid barriers to access and participation in technology and services (e.g. provide an example of the barriers and how your project addresses such barriers);

*3)* Support new connections between communities of interest (e.g. provide an example of how the project creates opportunities for new connections between people and/or fosters community building).

1) Our Toolkit responds to the needs of product managers, developers and data scientists of ML applications (at Cambridge Spark, for example) to mitigate bias, e.g. social, racial, etc. Through educating the next generation of ML developers, the adoption of such toolkit will also positively affect industries (HSBC or Total for example among Cambridge Spark's clients) they will be working for, such as being able to launch ML-based products into the market with a lower risk of social issues. Finally, the whole society will indirectly benefit from our Toolkit by having access to ML-based digital services and applications carrying a lower risk of bias.

2) In the so-called 'prime-lining scandal', Amazon made free same-day delivery available to Prime service subscribers in the US but only in some areas. Customers in predominantly African American residential areas were excluded, sometimes even when they closely bordered predominantly white areas which were included. Amazon subsequently chose to disregard its algorithm and make free same-day delivery available across all areas. Companies, such as Cambridge Spark's clients, employing Data Scientist trained in using our Toolkit will learn to avoid such type of bias at design time before introducing social unjust services into society.

3) Our project will connect participants involved in the WeandAl network with developers and employers involved in the Cambridge Spark network, i.e. increasing awareness of bias in Al applications. In this project, the scenarios and requirements based on WeandAl experience on increasing awareness and understating of Al together with the Design Fiction toolkit will help future developers of ML applications at Cambridge Spark to carefully consider potential bias in their apps and so influence their future employers (companies such as HSBC, Lloyds bank, etc.) to deliver fairer application and services (e.g. non-ethnically biased credit score apps).

#### 8. WORK PLAN

Please outline the work-plan for your proposed research/activity (<200 words).

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#### WP1 – Project Management.

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Deliverable/s: D1.1 Fortnightly meetings online. D1.2 Two face-to-face meetings (remotely if required). D1.3 Data management plan plus project and dissemination plans.

WP2 – Background Review. We will review current ML training datasets and ethical tools focused on two principles: Non-maleficence and Justice. Deliverable/s: D2.1 A report on Discursive Strategies (see section 3) including techniques and tools.









WP3 – Toolkit Design and Development. WP2 will inform the development of the toolkit. Deliverable: D3.1 - the Design Fiction Toolkit.

WP4 – Testing. One Ethnographic study observing participants (e.g. ML developers) using our toolkit to evaluate its usability. A/B testing two versions of a ML application, under 2 conditions: with and without the use of the Design Fiction Toolkit. A group of participants in the WeandAI network will evaluate the two versions at three different stages – Scenario, Testing and Reflection, inspired by the SMACTR auditing framework (Raji et al., 2020). Deliverable/s: D4.1 - Ethnographic study. D4.2 - Report (e.g. SMACTR auditing framework).

WP5 – Dissemination and Exploitation (see section 8). Deliverables D5.1 - Project website D5.2 - 4 bimonthly articles on social media. D5.2 - Final public engagement event D5.4 - article on high-impact venue such as The Conversation. D5.5 - Academic outputs.

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	TASKS / TIME (months)	1		2		3	4		5		6	7		8
1	WP1 - Project Management				3			R		ş				
2	WP 2 - Background and Materials Review													
3	WP 3 - Toolkit Design and Development						1	0						
4	WP4 - Testing													
5	WP5 - Dissemination and Eplotittion													

# 9. HOW WILL YOU COMMUNICATE THE FINDINGS OF YOUR RESEARCH TO THE PUBLIC?

*Please outline your dissemination plans e.g. events, networking with local support groups, creating vlogs, writing blogs, etc. (<200 words).* 

- Public and Media Engagement
  - o Project Web site.

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- Publish a bi-monthly article on social media and partners' blogs on:
  - Design Fictions for Future Technologies
    - Algorithms, Biases and Gender Issues
    - Algorithms and Ethics
    - Design Fictions Narratives
- Final Event at the University of Hertfordshire to present the project and launch the Toolkit. The event will be organised with the Creative Ideas Office at UH involving enterprises and the general public, see the Festival of Ideas at UH: https://www.herts.ac.uk/about-us/ideas
- We plan to publish on The Conversation, see for example: Malizia, A. Carta, S. (2019): "Science fiction could save us from bad technology". The Conversation is a high-impact independent source of news and views, sourced from the academic and research community and delivered direct to the public.
- Academic Outputs and Engagement (led by Prof. Malizia, UH)

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 We plan to submit research papers to venues like ACM Ubiquity Magazine (Prof. Malizia is Associate Editor), the Conference on Fairness, Accountability, and Transparency (ACM FAccT), which is focused on the topics of algorithmic social justice and the ACM CHI Conference for Human Factors in Computing Systems, which is the premiere conference on interactions between humans and technology.

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### **10. EXISTING FUNDING**

Will any existing funding be used on this project (e.g. PhD funding)? If so, please provide information about these and how they will be used for the project (<150 words).

The school of Creative Arts at UH will cover costs for:

- 1. Materials and consumables to run the design fiction workshops (WP3, WP4).
- 2. The project Web site and MS Teams platform used to store, manage and publish project-related documentation, and track project team events on a common calendar.
- 3. Data management services. The project will encourage the use of secure UH Cloud services for data storage as local storage. The PI will regularly email all partners to ensure they are depositing data in a safe place. Data collected on paper will be stored locally at UH in locked cabinets as determined by the ethics requirements of the project. The project team will determine a system for protecting data while it is being processed, including use of passwords and safe back-up hardware offered by UH.

## **11. EXPERIENCE & INTERACTION OF TEAM**

*Please indicate any previous relevant experience, qualifications and publications of the lead applicant and team. If applicable, please detail how the PI-postdoctoral partnership will be beneficial (<300 words).* 

*Lead Applicant (PI)*: **Alessio Malizia**, Prof of User-Experience Design at University of Hertfordshire and ACM Distinguished Speaker, has a track record of over 100 publications and of research funding, including EPSRC and EU FP7/6; he brings vital expertise in Human-Centric Computing and Design Fiction.

*Co-Investigator (Co-I):* Dr **Silvio Carta** is Head of Design at University of Hertfordshire and a leading figure in the Digital Hack Lab, a cutting-edge international research unit that investigates the impact technology is having on creative practice.

*ECR – Early Career Researcher*: we would like to include Rebecca Onafuye as RA for this project. Rebecca proved to be a talented young researcher during her PhD studies in Scenario-based Design and UK Nigerian youth. This project will give her the opportunity to develop her research skills even further. Our previous experience and relation as supervisory team (PI and Co-I) and PhD student (Rebecca) will guarantee that the team is able to deliver within the relatively reduced timeframe of the project.

Key publications relevant to this project by the team

Carta, S. (2019). Big data, code and the discrete city: shaping public realms. *Routledge*.
Malizia, A. Carta, S. (2019). Science fiction could save us from bad technology. *The Conversation*.
Malizia. (2019). Design Fictions to Mitigate Social Injustice in Possible Futures. *Blog@Ubiquity, ACM*.
Carta, S., Onafuye, R., & De Kock, P. (2019). Standing Out in a Crowd: Big Data to Produce New Forms of Publicness. In Architecure and the Smart City. CRC press.











**Malizia, A.**, Chamberlain, A., & Willcock, I. (2018, July). From Design Fiction to Design Fact: Developing Future User Experiences with Proto-Tools. In *International Conference on Human-Computer Interaction* (*pp. 159-168*). Springer, Cham.

### **12. BUDGET BREAKDOWN**

Please provide a detailed budget breakdown and justification for your budget - for example: salary grade, point, duration and %FTE: specified journeys or conferences; identified items and quantities of consumables (<300 words).

**Directly incurred costs - Staff (£35,184 incl overheads):** One full-time (0.6 FTE) Grade 5 Research Assistant (RA) for 8 months. The RA will help conduct WP2 materials review, WP3 by prototyping the Toolkit and WP4 testing the Toolkit. The RA will assist in WP4 by planning the workshops activities. Prof A Malizia and Dr S Carta, respectively PI and Co-I, will jointly supervise the RA employed by UH. Both have extensive experience of co-designing methodologies and Design Fictions.

**Directly incurred costs - Travel and subsistence (£2,750):** We would like to fund respectively the RA and one PI/Co-I to attend the ACM FAccT 2021 conference and CHI 2021 conference: 2 participants x 2 overseas conferences: Facct 2021 Toronto, Canada in Jan 2021 and CHI 2021 Yokohama, Japan in May 2021.

**Directly incurred costs - Other (£2,050):** To support data analysis and the development of the Design Fiction Toolkit we will buy a standard configuration laptop for the RA (£900).

Two one-day project meetings respectively at the kickstart of the project and halfway through will be run at UH. The 2 meetings that will be host at UH include lunch and hospitality (teas and coffees) at £15 each for the 5 members of the project team: PI, Co-I and RA (UH), 1 participant from Cambridge Spark, 1 participant from WeandAI (£75 x 2 meetings = £150).

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We would like to organise a Final Event at the University of Hertfordshire to present the results of the project and launch the toolkit at UH and request £1,000 for this purpose (see section 8 for details).

## **13. TOTAL PROJECT COST**

Please list in GBP under the headings – Overall Cost, Staff, Travel and Other

	Directly incurred costs (80%)	Directly incurred costs (100%)	
Staff	£10,753	£13,441	
Non-Staff Costs:	£1,640	£2,050	
Consumables			
Non-Staff Costs:	0	0	
Facilities/Equipment			
Non-Staff Costs: Travel	£2,200	£2,750	
Non-Staff Costs: Estates (RA'	s £2,782	£3,478	
only)			

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only)	Costs: Indir	ect (RA's£1	4,612		£	18,265				
<b>Overall</b> Co	st*	То	tal Not-Eq	ual	П	otal for inf	ormatio	n only:		
		Fu	nding Requ	uestec	l: É	39,984				
		£3	1,987							
Role	Post	Start Date	Period	Dir % of	ectly Scale	Incurred Po	osts Basic	Super-	Total cost	Total cost
Role	Post	Start Date	Period	Dir % of Full	<b>ectly</b> Scale	Incurred Pol	osts Basic Starting	Super-	Total cost	Total cost
Role	Post	Start Date	Period on Project (months)	<b>Dir</b> % of Full Time	<b>ectly</b> Scale	<b>Incurred P</b> o Increment Date	osts Basic Starting Salary	Super- Annuation and NI (£)	Total cost on grant- 80% FEC (£)	Total cost on grant- 100% FEC (£)

\*Please note you are able to claim for RA time and RA relevant FTE related costs, PI/Co-I time and other non-staff costs. You are not able to claim for FTE related costs attributed to PI/Co-I time.

## **Further Information**

If you have any further questions regarding this call for proposals, please contact <u>notequal@newcastle.ac.uk</u> or Rachel Sparks (Not-Equal Project Manager) on 0191 2088268.

### **Privacy Notice**

Not-Equal is collecting your data to record submission of your application, and we will only contact you to provide you with information about the application and related Not-Equal activities.

You have provided your consent for the University to process your personal data for the purposes detailed above. You have the right to request that the University deletes this personal data at any time, noting if you do so, the University will be unable to provide you with information relating to Not-Equal. On an annual basis we will ask you to confirm that you wish to continue to receive this information: if you don't or you do not respond, we will delete your personal details within one calendar month.

We won't share your data with anyone outside the University, unless required to by law, and it will be stored securely within Open Lab at Newcastle University.

If you would like to discuss this further, please contact <u>rec-man@newcastle.ac.uk</u>

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If you would like more information about how we manage personal data more generally, including your rights under law, and the contact details of the University's Data Protection Officer, please see our website: <a href="http://www.ncl.ac.uk/data.protection/PrivacyNotice.htm">http://www.ncl.ac.uk/data.protection/PrivacyNotice.htm</a>







