**End of Project Report for Participatory Research and Policy Support Funds 2022**

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| **Name of PI and School:** Dr Alexander Bolotov, Computer Science and Engineering |
| **Name of Co-Is and School:** Dr Emanuela Volpi, Life Sciences |
| **Project Title: The Digital Health Evidence Generator** |
| **Key findings of your research project** |
| *Link to outputs (e.g. reports / policy briefs) where relevant, but please do summarise the headline findings here in any case.*The Digital Health Evidence Generation Prototype can be accessed following this link<http://evidencehubprototype.herokuapp.com/> |
| **Please outline and provide evidence of beneficial impact on your stakeholders and partners** |
| *Please provide impact evidence, such as testimonial statements or feedback forms, as attachments to the email you return this form with.*1. In May 2022, the UoW team hosted a participatory workshop with the following digital health small-to-medium enterprises (SME): On the Mend, Anthropos, Lenushealth, Cerner and Kraydel. The workshop was aimed at co-designing a Digital Health Evidence Generation Hub with its potential users. The outcomes of the workshop informed our subsequent work on the Hub Prototype <http://evidencehubprototype.herokuapp.com/>. Overall, participants supported the proposed structure of the Hub Prototype and further contributed to the development of its functionality by emphasising priorities for a clear guidance on evidence generation and explicit help with funding applications for digital health innovators. Please see attached our invitation letter to the workshop for the SMEs which outlines the beneficial impact of our participatory activities on stakeholders.
2. Jointly with DigitalHealth.London, as the main stakeholder, we initiated and coordinated the establishment of a consortium composed of partners from different sectors to prepare a grant application in response to the Digital Health HubUKRI funding call – please see details of this application in the next section. Please also see attached a letter of invitation emphasising the role of our initial partnership UoW-DigitalHealth.London in building the consortium.
3. The project had provided a unique opportunity for student helpers to gain an experience of participatory work with the stakeholders and digital health companies top management. Our student team significantly contributed to the participatory workshop, actively communicated with stakeholders, and co-designed the Evidence Generator Prototype. Here is an indicative feedback from one of the student helpers:

It was very exciting experience to work with this students’ team deeply engaged in the participatory work with a real feel of making a difference “being Westminster”.  |
| **Do you have any plans to work further with your external stakeholders/partners?** |
| *Please provide what stage you are at with these external stakeholder/partners in devising future work. Remember to contact your* [*Research Development Partner*](https://universityofwestminster.sharepoint.com/sites/00277/SitePages/Who%27s-who-in-the-Research-Knowledge-Exchange-Office.aspx?csf=1&web=1&e=PpguY9&OR=Teams-HL&CT=1660565631812&clickparams=eyJBcHBOYW1lIjoiVGVhbXMtRGVza3RvcCIsIkFwcFZlcnNpb24iOiIyNy8yMjA3MDMwMDgxNSIsIkhhc0ZlZGVyYXRlZFVzZXIiOmZhbHNlfQ%3D%3D&cid=050ef4cd-46b6-451f-99cb-0b0dc3480d98) *for info on applying for external funding to continue your work.*One of the most satisfactory outcomes of our initial partnership with DigitalHealth.London was its expansion to a large and strong partnership which also included Brunel University, [Health Innovation Network](https://healthinnovationnetwork.com/), [British Medical Journal](https://www.bmj.com/), [Guy's & St Thomas' NHS Foundation Trust](https://www.guysandstthomas.nhs.uk/), [On the Mend](https://www.onthemend.com/) and [National Institute for Health and Care Research](https://www.nihr.ac.uk/).This consortium recently (August 2022) submitted a £2.46m UKRI bid with £107,617 funds allocated to the UoW. Please also see attached a letter from Prof A.Linn expressing UoW support for this application and for our collaboration with partners. We are currently working with DigitalHealth.London on the development of the Digital Health .Evidence Generation Ontology and on assisting the DigitalHealth.London in their work on the November-December 2022 LaunchPad Evidence Generation courses for SMEs.We also aim to apply for another UKRI funding by the summer 2023 to build an evidence generation assessment platform. This will involve an extended UoW partnership with colleagues in the Social Sciences and external stakeholders (Prof Henry Potts, UCL).Finally, we aim to submit a journal paper on the work results by the same time, summer 2023.  |
| **Challenges you faced in delivering the project** |
| *Please specify any issues you encountered with internal processes (payments, ethics, etc), the external stakeholders, and/or anything else. We may follow up for detail where appropriate.*1. The organisation of the participatory workshop was a completely new experience for the UoW team.
2. The project’s funds were used to employ student helpers who contributed significantly to the project, while also learning a great deal in the process. However, when planning the budget we had an issue of uncertainty regarding the full cost of student employment – the obtained figures from various finance departments – UoW finance, finance partners, research finance – were different and as a result, budget planning was done on the basis of the “safe route”, planning the budget with the “maximum” cost to avoid budget deficit. As a result the project final spent was £4382.48 (with the remaining funds only just above £400)
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| **How could the undertaking of these projects have been improved?** |
| We have found that the scheme managers (Jeeshan Gazi and Christine Rashid) and HR (Nicola Lunan) at the UoW were very helpful at all stages of the project. However, if a project’s funding involves employment of student helpers the budget planning could be improved by providing explicit “formula”/detailed explanation how to anticipate the full cost of students’ employment.  |

  

**University of Westminster funded participatory project to ensure the development of a Digital Health Evidence Generation prototype takes account of the standards for digital equalities and extended accessibility**

*Testimonial statement: Prof Paul Wallace, Clinical Lead Digital, Health Innovation Network (HIN) and emeritus Professor of Primary Care, UCL.*

As lead for a programme of work designed to lead to the delivery of an online resource for Digital Health Evidence Generation and principal investigator of a multidisciplinary application to the EPSRC to develop a National Digital Health Evidence Generation Hub, I am delighted to provide a testimonial for the participatory project supported by a grant from University of Westminster and led by Dr Alex Bolotov.

This work undertaken by Dr Bolotov and his team has been of the highest quality, providing substantial direction and impetus to the development programme. They have provided invaluable input through regular meetings and discussions with the Generator Development Team and their input has been crucial in defining the core concepts and design of the prototype.

Dr Bolotov and his team provided specific support in the early part of the project by convening a Co-design Participatory Workshop designed to elicit the views of potential users of the online Digital Health Evidence Generation prototype. This collaborative event was run by University of Westminster and facilitated by a member of the DigitalHealth.London Evidence Generator team. It delivered a number of important insights about the optimal arrangements for the development of the prototype with specific reference to the project’s main objectives:

*1) Analysis of the known parameters of the digital divide e.g. access, language, migrant communities, diversity of devices and the complexities of their use and identifying the technological solutions to overcome these barriers*

*2) Analysis of the known data related to the digital health technology accessibility and development of the recommendations on which technological solutions for the hub’s functionalities will be most suitable to ensure the extended accessibility*

*3) Development of an initial online assessment of the users – both digital health technology producers and consumers.*

*4) Identification of the principal elements of the assessment process, production of a programme specification to deliver this*

*5) Design of a prototype assessment programme and a framework* for identifying packages for recommendation embedded in the hub’s users registration process.

As a result of the workshop, Dr Bolotov and his team went on to design and deliver a pre-prototype online knowledge and learning resource for digital health evidence generation. The learning from this exercise was extremely valuable to the Generator Development Team, and played a significant role in the enabling the design and delivery of a substantial (£2m) collaborative bid to the EPSRC for the establishment of a National Digital Health Evidence Generation Hub which was led by DigitalHealth.London / HIN with major input from University of Westminster and Brunel University.

Dr Bolotov and his team led on the development of Work Package 2, a key component of the proposal:

**WP2: Intelligent Digital Support to Enable Access, inclusion and Sustainabilit**y (leads: UoW, BRL)

**Activities**: Building on UoW (Bolotov) SMARTEST infrastructure, we will develop an intelligent support system for Hub users to access curated resources and expertise; including a repository (case studies, reports, tools, organisations, experts, FAQs) and a tool to match users with expertise and content.

**Outputs:** ‘One-stop shop’ resource for the Hub; tailored, modular support for evidence generation

journeys; user needs matched to relevant expertise; peer-reviewed publications; stakeholder report.

**Outcomes:** Improved efficiency of knowledge transfer, innovation; enabling inclusion and sustainability.

We await the outcome of the EPSRC application, but in the meantime Dr Bolotov and his team are continuing to work on the further development of the prototype, the creation of an ontology for digital health evidence generation and the assembly and organisation of an online resource for knowledge and learning.

It will be clear from the above that in my view and that of the Generator Development Team, the work lead by Dr Alex Bolotov and supported by the grant from University of Westminster has delivered to a very high level, thanks to the high quality of his leadership and the hard work of his team.



Professor Paul Wallace FRCGP FFPHM

Clinical Director Digital, Health Innovation Network

Academic Lead, DigitalHealth.London Bootcamp

Professor Emeritus Primary Care, UCL