

# The Time Machine

## Performances at the London Library and on Zoom

### Final Evaluation Report

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## Introduction

This report summarises the findings of evaluation work carried out by the Science Communication Unit at the University of the West of England, Bristol on behalf of the Wellcome Centre for Ethics and Humanities at the University of Oxford. The evaluation explores the collaboration between the Wellcome Centre and Creation Theatre to produce a performance drawing inspiration from HG Wells' *The Time Machine* and the research work of the Centre. This work was presented live at the London Library as a performance in which the audience travelled from room to room with a time traveller. However, this live performance was interrupted by the emergence of the COVID-19 pandemic, which caused the run to be cancelled abruptly. The live performance was then adapted to be delivered digitally via Zoom and the bulk of the audience evaluation was carried out on these performances.

The report explores the impact of the engagement between the Centre and the theatre company on the researchers involved in the project. To this end, interviews were carried out with relevant participants. In addition, the evaluation report considers the impact of the performance on the audience, through the use of a post-show survey and interviews. More detailed reports of these findings are available on request.

## Impacts on researchers

All five researchers interviewed enjoyed the process of working with a theatre company on the performance of the Time Machine. In reflecting on this experience, the researchers highlighted the benefits of having someone from outside academia both ask them about their work and present it back to them in a different way. This encouraged them to think about their research in new ways, and help them 'think outside the box' (Researcher 4). One researcher felt that working with the scriptwriter helped them to reflect on their research and that this would help them identify the hooks that they could use for public engagement later. For example, 'with funding applications ... nowadays the advice, is ... we have to create a hook and you have to latch onto or highlight things which are perhaps more interesting to the layman rather than the professionals' (Researcher 3). This project helped the researchers to think about their research in new ways, for example, the way that artificial intelligence (AI) was portrayed moved beyond the approach often taken in the media, which typically focus on questions around surveillance and privacy. Instead, the performance placed AI in the context of the ways that we prioritise research funding. This helped one researcher think about her work 'in different terms' (Researcher 1).

Another aspect of this project which was unusual for public engagement work was the fact that it involved several researchers from the Centre. This meant that they could see how their research fitted in to the wider work of the centre, which gave one researcher 'a new perspective on a few bits and pieces of the work that I was doing' (Researcher 3). The researchers felt that participating in this project 'has value for thinking differently as a group about what you do' (Researcher 1).

Researchers were aware that presenting their work within a theatrical production could lead to some confusions amongst the audience regarding what was research and what was fiction. And, while not seen as a problem with this production, one researcher explained that the performance could 'end up looking like it's completely unrelated to what we're working on because it's a creative process' (Researcher 2). Other challenges identified in working with the arts, but not necessarily realised in this case, included the challenges of conveying the subtlety and complexity of the work of the Centre. This might materialise as a problem, for example, if scientists or science is presented particularly negatively. The work of the centre is to be 'critical friends to science' (Researcher 2), but to do this the Centre needs to be respected by scientists.

As a form of public engagement, theatre was unfamiliar to most of the researchers. This provided an opportunity for researchers to experience a different type of public engagement and to be challenged to step outside their comfort zone. In different ways, all of the researchers enjoyed this experience arguing that they improved as a result. The researchers also felt that this type of public engagement might reach 'a different audience' (Researcher 5).

The quality of the partnership and the support that the researchers had were key aspects that made this project successful for them. Having a dedicated public engagement manager at the centre meant that there was someone who could act as a bridge between the researchers and the artists. The researchers also had great respect for both the script writer and the theatre company. For example, the scriptwriter 'was quite good at sort of guiding you into talking about things, so it was easier than I thought it would be' (Researcher 5).

Potential areas for consideration in future, would be to develop additional resources that could be used to further highlight the Centre's research. The videos produced were seen as an excellent tool, and it could be as simple as promoting these further by hosting them on a website and promoting them through post-show emails.

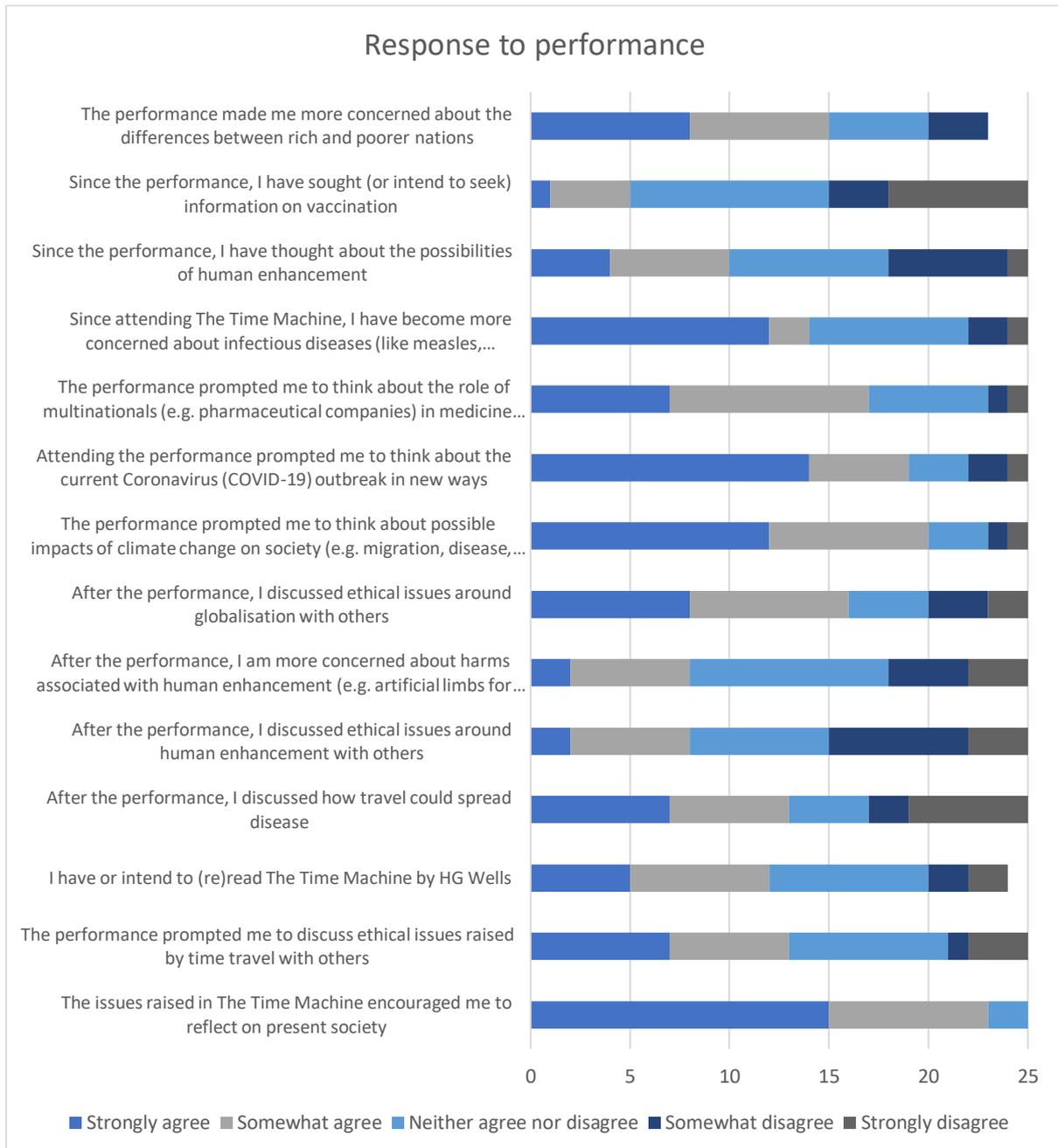
## Audience responses

### London Library performances

The arrival of the COVID-19 pandemic meant that performances at the London Library were abruptly cut short. A post-show survey was designed and circulated to people who had booked tickets to the London Library show. This survey was circulated in April, while the UK was getting used to being in lockdown. This may have affected response rates. A total of 26 fully completed responses were received. The majority of these respondents were in the 50-80 age bracket.

Figure 1 shows the audience responses to statements about actions they might take after the performance. Unsurprisingly, given that this performance took place immediately before the UK went into lockdown as a result of the pandemic, issues relating to pandemics stood out for the audience. However, there were a number of other aspects of the Centre's

work which also stood out for the audience, for example the impact of climate change on society and animal research in healthcare. Encouragingly, nearly all audience members felt that the performance had encouraged them to reflect on our present society. However, it is worth noting that this performance was packed with ethical issues, not all of which directly related to the Centre’s work. In an open comment, one audience member stated that they ‘felt bamboozled and lost after a while’, while another respondent stated ‘I couldn’t clearly differentiate them’.



**Figure 1: Audience responses to statements about their actions after the performance**

## Zoom performances

The script produced for the London Library performance was adapted to allow a virtual performance to be delivered by Zoom. The survey produced for the live performances was adapted and distributed by email to those booking a 'screen' for the Zoom performances. 230 survey responses were received. Of these 18 were completely blank and were removed from the data set. Of the remaining 212 responses, 12 respondents only completed the first few questions. These responses have been retained in this report.

The Zoom performances attracted an audience that is very familiar with theatre, with the majority attending theatre four or more times per year. This is also a highly educated audience with over half having completed a postgraduate qualification and nearly all having a bachelors or other higher qualification. Figure 2 provides details of the on age. Most respondents had attended previous productions by Creation Theatre (68%, n=143), though 29% (n=61) were new to the company.

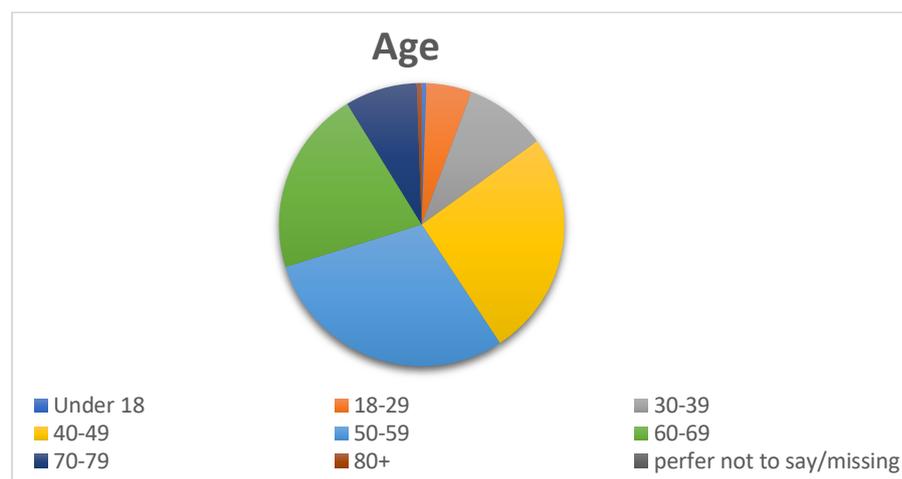


Figure 2: Respondents' age

As with the live version, the topics that most resonated with the audience were reflecting on society and the impacts of climate change on society (Figure 3). The proportion of people reporting that the performance had caused them to think about COVID-19 in new ways dropped slightly compared with the first survey. This is likely a result of timing with people becoming more familiar with the pandemic and the country moving out of lockdown. Respondents report that they became more concerned about social inequality (41% agree/strongly agree) and human enhancement (30% agree/strongly agree). Topics discussed after the performance included how travel could spread disease (33% agree/strongly agree). This topic may have particularly resonated with the audience, given the media discussion around holiday travel at the time. Issues around globalisation were also discussed by respondents (41% agree/strongly agree), though human enhancement was not discussed as much (22% agree/strongly agree). As with the live performance few sought information about vaccination (7% agree/strongly agree).

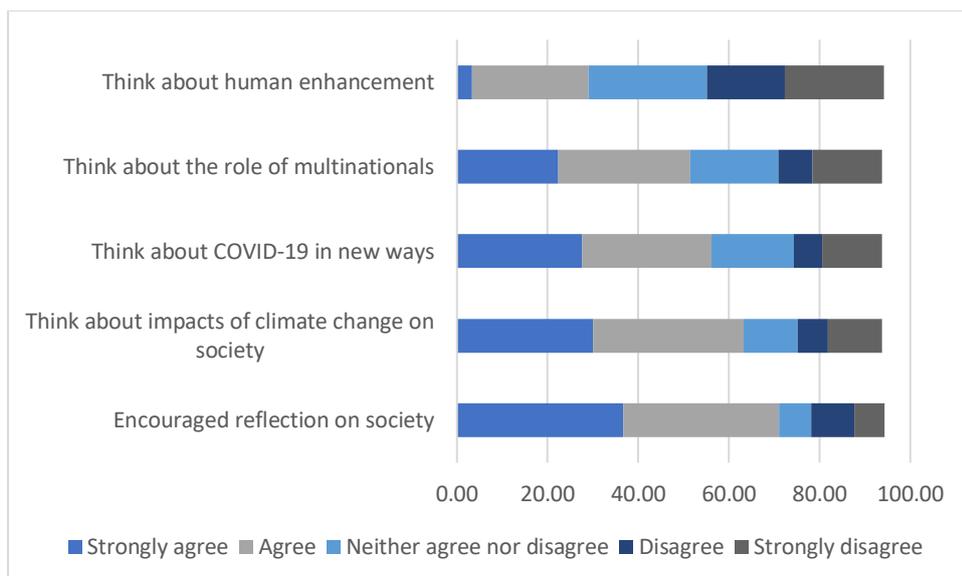


Figure 3: Percent of audience members indicating that they had ‘thought’ about or ‘reflected on’ aspects of the Centre’s research that was incorporated into the performance.

In addition to the survey, semi-structured interviews (12) were conducted with audience members attending the Zoom performances. Interviewees were recruited from the pool of people who had responded to the survey and indicated that they were willing to be interviewed, leaving a contact email.

These interviews reveal an interest in science and ethical issues and a feeling that theatre is a good medium for their communication. ‘I think it’s a brilliant way of communicating because it is a story and it’s a way of communicating complicated things in visual and dramatic ways. And I think it’s easier to understand.’ (Interviewee 4). Drama was seen as being more memorable with a greater impact on the viewers than a lecture or TV programme, which may only have a single argument and may not generate a debate leading to discussion and further contemplation as a result. ‘If the issues are presented in dramatic form, it has more impact than just a discussion. It stays with you.’ (Interviewee 3).

The majority of interviewees found the storyline powerful and thought provoking, particularly in terms of climate change and the impact mankind is having on the planet. There was a sense that it ‘was prompting the audience to actually think more deeply.’ (Interviewee 1) The irony of the performance being written pre-COVID and having been affected by COVID and moved from live physical theatre to live digital theatre during lockdown was not lost on the interviewees. For many this made the experience much more powerful. ‘I think it was heightened by the fact that being in the midst of COVID where everything was upside down and there were things about the air pollution improving because planes had stopped. So, there was that promise of a possible change, a call to arms being met. But then there was also the feeling of powerlessness because I was in stuck in the house.’ (Interviewee 4). However, not all participants were expecting this performance to be quite so close to the issues they were facing in the pandemic. One respondent felt it was necessary ‘to make this [ethical/pandemic related content] clear in advertising ... [as it could have been difficult] for anyone struggling with lockdown and looking for

entertainment as a distraction' (Respondent 54). However, this issue was recognised by both Centre staff in their interviews and Creation Theatre also adapted their marketing accordingly. To mitigate any distress caused by the content of the play, Creation Theatre added a pre-show 'warning notice' to the holding screen on Zoom stating: "This experience is recommended for humans age 12+. We will be travelling through time and facing prescient and at times challenging ethical considerations about the future of humanity. If you do not wish to engage with these topics we advise you do not join the call".

## Summary

Overall the partnership between the Wellcome Centre for Ethics and Humanities and Creation Theatre should be viewed as a success on many levels. On the first level, it's clear from the audience responses that this was a successful piece of theatre, both in its live and digital forms. The use of digital theatre was an unexpected outcome of this performance and the theatre company should be commended for their adaptability in taking what was designed as a live performance into an online space. In looking at the audience responses, it's clear that both the live and digital performances encouraged the audience to engage with a range of ethical issues related to science that are emerging today. The audience felt that theatre was a good place to explore these ideas, and many continue to think about and discuss these topics after the performance.

In addition to these benefits, it is also clear that the Centre staff who participated in this project enjoyed the opportunity and gained much from their participation. They had the opportunity to explore their research in new ways, either because the questions asked by the script writer prompted them to think about their research in new ways or because they were able to see new linkages between their research and others in the Centre. The researchers indicated that this had been a stimulating project, but one that had been easier in many ways than other types of public engagement. They clearly valued having the support of the public engagement manager at the centre, as well as the creative input from the theatre company. All indicated that they would be happy to participate in this type of activity again, and several indicated that it had encouraged them to think about their other public engagement activities in new ways.