

***Robot Thought* venue 7: Edinburgh University / Centre for Life**

Successes, challenges and recommendations

This document summarises the successes and challenges in developing, delivering and evaluating the *Robot Thought* show and related *Jitterbot* and *Meet the Scientist* workshop activities from the perspectives of the project partners. The show was developed following collaboration between the University of Edinburgh robotics research group, the Centre for Life in Newcastle and the University of the West of England. The results from the audience evaluation are provided in a separate document.

Two presenters and two management staff from the Centre for Life were interviewed. One of the roboticists that participated in the workshop was also interviewed. The evaluator's own observations and conversations with participants are also taken into account here.

Successes

Interviewees identified a number of successes associated with the project:

Partnership and activity development

- This partnership was particularly interesting because themes at the Centre for Life are usually based on the life sciences. Also a previous programme based around a similar theme had met with limited success. This had led to a preconception amongst senior management at the centre that visitors did not like robots. The fact that this project was viewed as a success helped address this.
- The collaborative nature of the project was a motivating factor for both the centre and the roboticists. The Centre for Life often work with scientists to develop programmes, however as mentioned above these are often life scientists.
- The fact that this collaboration came at the end of the project period was seen as an advantage by both the roboticists and the science centre. From the perspective of the science centre, the long lead time allowed effective planning of the show and workshop. The roboticists were able to learn from their previous experiences at the Edinburgh Science Festival.
- The role of UWE in the collaboration was seen as helpful by partners, and the funding offered by the project facilitated participation.
- The presenters valued the lab visit highly as none of them had a background in engineering or animal behaviour. Having the deliverers themselves visit the lab was felt to be especially important.
- The presenters felt that running the rehearsals over 2 half days rather than one full day was an effective way to work.

The activities

- The show was cited as a success by all interviewees and also went down well with audiences.
- The fact that the show involved so many real robots (and real props such as the washing machine) was key to its success.
- An interesting aspect of the show was that it asked open questions to which the presenters didn't know the answers, such as 'what is a robot?' It was felt that the audience responded warmly to this approach.

- The *Meet the Scientist* workshops were well received by visitors and complemented the show well. As one presenter put it, “it wasn’t just that we got to meet them, but the public could too”.
- The interactive and competitive nature of the Connect 4 Robot was very engaging, and the roboticists enjoyed speaking to visitors.
- The *Jitterbot* workshop was seen as less successful than similar workshops by science centre staff, although everyone I spoke to when I attended the workshop enjoyed it.

Challenges

Due to the long lead time and effective organisation from partners, there were no major challenges during the planning of the activities. However interviewees did identify some limitations with the activities themselves and suggested a number of improvements.

- The preconception that visitors would not be interested in robotics meant that the long lead time was necessary to ensure senior managers at the science centre were committed to the project.
- This also meant that a more expensive and involved Bugbot build workshop was not funded by the centre; instead the ‘make and take’ *Jitterbot* workshop was substituted. This was felt to be a missed opportunity to build on the discussions started during the show.
- The location of the *Meet the Scientist* stand was not highly visible in the centre, and was not always promoted during the show. It is difficult in a large centre like Life to link activities closely, especially because the roboticists were not there every day during the programme, so the stand was not included in the centre guide.
- As mentioned above, it was not possible for the roboticists to attend the centre for every day of the programme. In fact researchers’ time to participate in such projects is always in short supply. However, the research robots were included in the show for the full two weeks.
- The different format of the show, i.e. encouraging audiences to think rather than explaining the science to them, was a challenge that the centre took on board from the project outset: while it was felt that the show was not more difficult to develop or present as a result, it did require a slightly new approach, which was welcome.
- While the show worked well, centre staff acknowledged that it wouldn’t work for a show with a longer run as this would require a larger number of presenters to take part in the lab visit and training, which wouldn’t be feasible for the centre.
- As with previous legs, some presenters found it difficult to deliver the show to a small audience. It was hard to keep a high energy level with lower levels of audience participation.
- The show was not suitable for very young children, and there was no age guide on the publicity for it. Unfortunately, the show venue is such that it is not possible to leave part way through and some visitors were dissatisfied with this aspect.