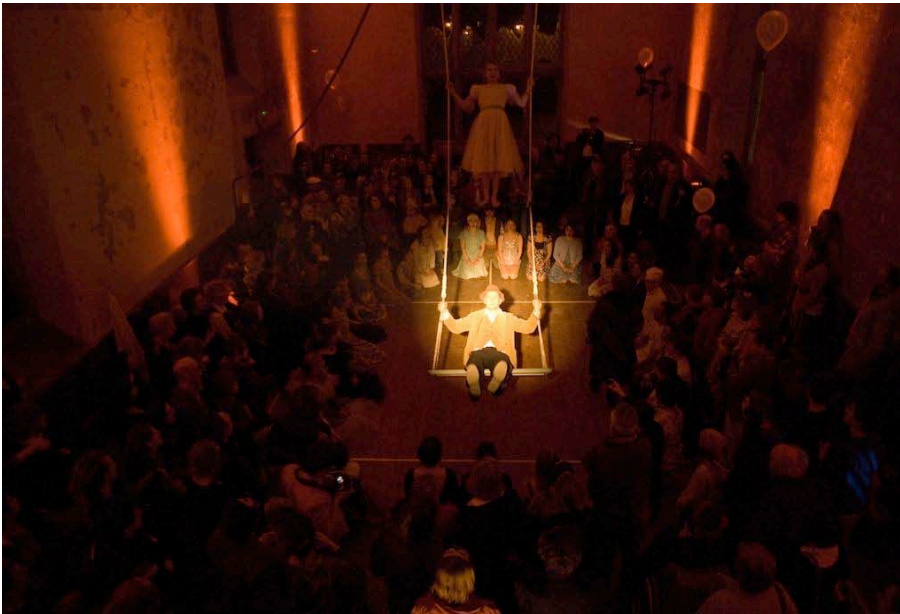


PMSTUDIO MICRO-RESIDENCY EVALUATION REPORT FOR:

STAND + STARE COLLECTIVE'S THEATRE JUKEBOX

BACKGROUND:

Stand + Stare was formed in Feb 2009 following our first show, *Stand & Stare*, and is now run by me, Lucy Heywood, and my brother, Barney Heywood.



Stand & Stare, Nailsworth Old Boys Club February 2009.

We create immersive theatre in which our audiences play an active part. We are committed to writing new stories and enjoy collaborating with a broad spectrum of artists from different disciplines to create large-scale site specific shows, small intimate pieces and commercial commissions.

As brother and sister, Barney and I often draw influences from shared memories and family history. Barney's background is in fine art and mine in playwriting. We currently have a shared interest in creating theatre or immersive experiences without performers. This partly stems from the fact that we are not performers ourselves and is partly due to our experience of using film and technology in our work.

We heard about the residencies through Clare Reddington, who came to see one of our shows, *The Children of Modernity*, and advised us to apply. We had investigated pervasive technologies and theorised about how we would use them in our work. We had begun development of the Theatre JukeBOX, but needed help to understand how pervasive technologies would actually function in practice. This residency seemed like the perfect opportunity to learn about the technology and prototype this project.

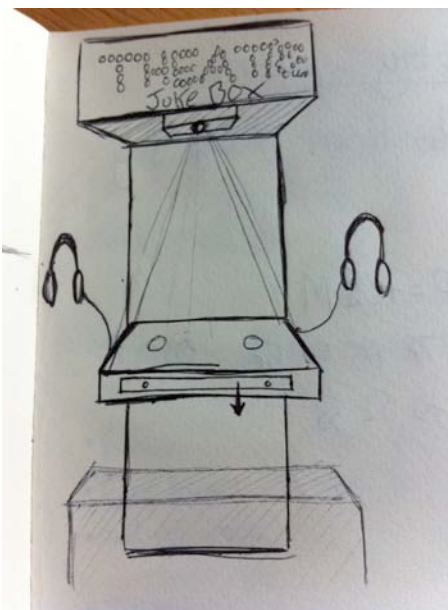


The Children of Modernity, Bristol Old Vic, January 2011.

Following an interview for Theatre Sandbox in 2010, we were invited to look around the studio and meet some of the people here. This meant that we had an idea of how the studio works and a notion of what to expect before our residency. It has lived up to our expectations. We have felt well supported in terms of technical assistance, introductions, chats about the development of the ideas and financial support to help us make the JukeBOX.

THE PROJECT:

Our original aim for Theatre JukeBOX was to create a self contained fully automated unit that delivers unique personalised experiences, similar to those in immersive theatre, but without the need for live performers.



Initial sketch

Over the course of our residency, we have wandered a little way from the path at times, but, after explorations that may have taken us on a different route, have found ourselves returning to our original aims and ideas. We have pared down and simplified them in terms of the technology, but at heart they are the same principles that we started out with.

We spent the first couple of weeks investigating which types of technology might work in the JukeBOX, thinking about how to approach the story/s and developing the aesthetics of the box itself.

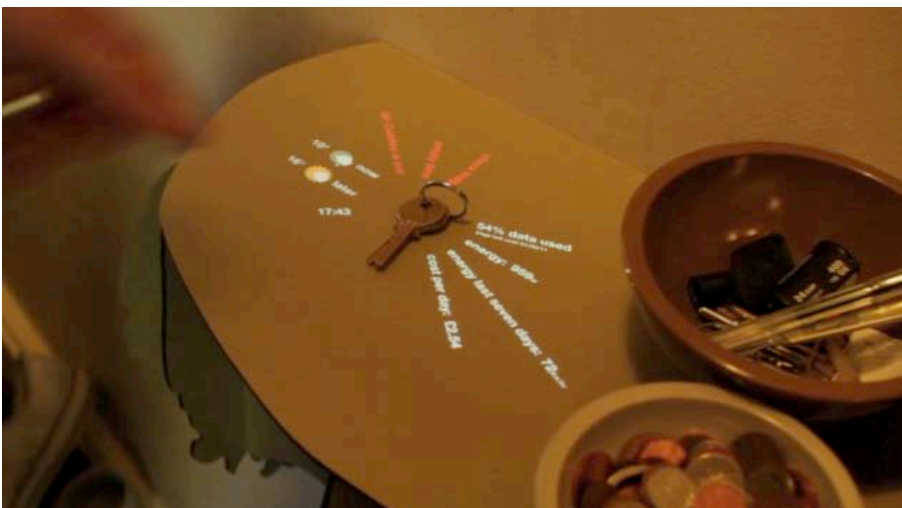
One of our main aims with the JukeBOX was to create a canvas that could be used to tell multiple short stories. We did not want to make one tailor-made unit designed around one particular story and leave it at

that. We wanted it to have flexibility from the outset. We wanted, in effect, to create a kind of mini 'theatre' complete with its own set of tools that could be manipulated by us, and potentially other artists, to create a whole range of shows/experiences.

With help and assistance from PMStudio technician, Dan Williams, we discussed and tried out various tools that we thought could work in the JukeBOX. These included:

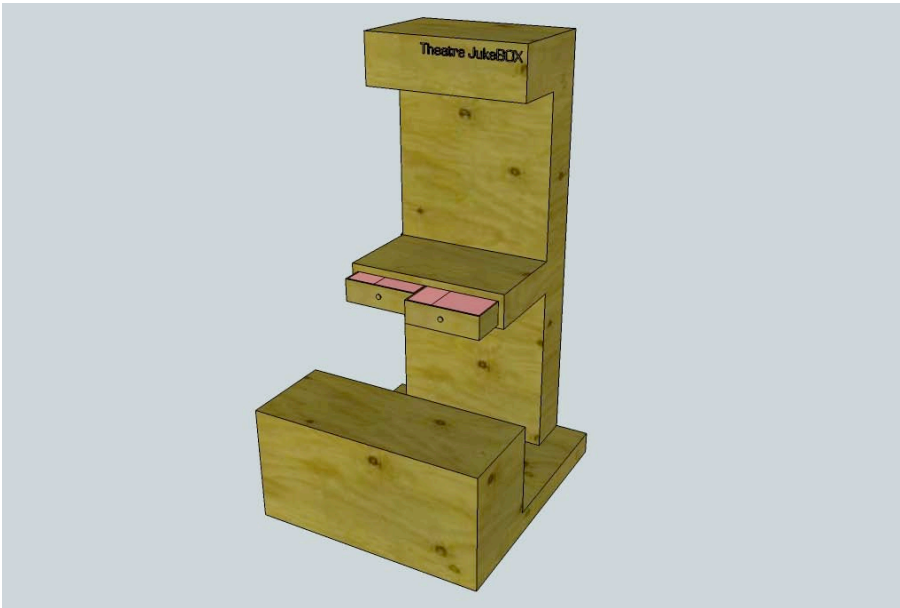
- mobile phone technology including Krstl, using a premium rate number to pay for experiences, phone calls and texts as triggers and saving audience members' numbers to contact them with elements of story
- simultaneous audio tracks in order to direct audience members/give them different experiences, who could then become the 'performers'
- binaural audio
- Smells - Scentscape
- QR codes and image recognition
- top down projections used in tandem with an image recognition camera to trigger images and audio, which we saw in action on Tim Kindberg's table in the studio
- top down projections used in tandem with RFID to trigger images and audio. Dan showed us a film of a project that he had worked on using these technologies together.
- Content lifted from the internet as a response to audience choice to make it more personalised
- Voice and handwriting captured and re-delivered to create later content

We were drawn to the top down projections because they are less screen-like and inspired by the potential of the projections in tandem with the RFID. As we want the JukeBOX to be usable in potentially quite noisy public places we decided audio through headphones would be more practical. We have used also binaural recording previously and are keen for that to be an available tool for the finished JukeBOX, which requires headphones.



DisplayCabinet by Bashford. <http://www.vimeo.com/24771815>

Taking the top down projector, RFID and audio, we made our first designs of the box itself in the google app, Sketch Up. This allowed us to view the design in 3D which was really helpful to get an idea of how it would look and whether it would work. It was also really useful to be able to show it to other people inside and outside the studio to get their feedback on it. The design we came up with was deliberately very neutral - ply wood, fairly plain looking and in the shape of a classic arcade machine with a box seat to balance the weight.



3D design for Theatre JukeBOX using Sketchup.

As we investigated, designed and made tentative tests, we were also working on the story. In the early stages, we felt that it was probably too ambitious to try to create multiple stories for this short residency. We could not conceive of a way of making it so that audiences could choose a story and so decided fairly early on to concentrate on making one story for the end of the residency. This was a bit of a cause for concern in terms of the name, Theatre JukeBOX. If it was only going to be one story per JukeBOX, we were worried that the name didn't really describe it very well.



Planning story structure.

We developed a story called 'The Shelf Beneath your Eyes'. This was a short story about a person who imagines she has a shelf beneath her eyes where everything she needs to do builds up. We talked about the rare times when that shelf drops away, how that feels and what can cause it to happen. We talked about those times

when hearing a quote or taking a step back and thinking about the bigger picture can change your perspective and cause the 'shelf to drop away'. I recently heard a quote by Carl Sagan at an astronomy lecture at Hay Festival. It was the first time I'd heard it and I was in a large crowd of people. I had been worrying about a few small things that day and hearing the quote about the enormity of the universe and the insignificance of the earth caused me to step back; it was one of those small moments that make you think slightly differently, even very briefly.

We liked the ideas in the story, but were struggling to gel them with the tools we had chosen for the JukeBOX. It took us a day or two, but we did find a way to marry our story idea with the technology. However, it still felt as though we weren't quite on the right track.

Luckily, this was as we reached our halfway point and work-in-progress talk. This was a really interesting and constructive meeting, which gave us lots of food for thought. As a result of the meeting, we went away and reassessed a lot of our ideas.

In response to questions about how people would know what the JukeBOX is and how to use it, we thought a lot more about the aesthetics and how to effectively embellish it to make it more attractive and easier to understand. We started to think about an end-of-the-pier style with signage, an awning a bit like a deck chair and possibly a flashing sign like an old penny arcade machine.



Carters Steam Fair - photos taken outside PM Studio December 2010.

After the meeting we also revisited one of our previous projects, *The Car Show*. Our approach with that show was to come up with numerous short stories/ideas/experiences. The only constraints were that they had to take place in a car and they had to be short (15mins max). We suddenly realised that the JukeBOX was a similar beast. What we needed was to understand our constraints - the things about the JukeBOX that make it what it is, like the windscreen, radio etc in a car.



The Car Show, Trowbridge Village Pump Festival July 2009.

We then began to really deconstruct the tools and how best to exploit their potential. As I've said before, the main three combining elements are audio (binaural or stereo), top down projection and RFID. The RFID is the bit that we are new to. One of the main things it offers is the chance for audience members to make a choice. If, for example, an audience member chooses an object, the RFID can read which object they have chosen and respond accordingly.

This re-evaluation of the basics developed into a new concept for the JukeBOX. We realised that by using the RFID, we could offer audiences a choice of stories. This revelation meant that the name, *Theatre JukeBOX*, would work after all. The simple construct is something like this:

Each JukeBOX has a different theme or selected object. The drawer contains items that adhere to that theme or selection. Audience members choose items one at a time from the drawer. Some examples of items/themes are:

- Books: you choose a book from a very small library. Stories are projected into the books.
- Music: choose your format/era (vinyl, CD, tape) or just have one format
- Photos/Postcards

- Transport: toy car, train, plane etc
- Animals: toy farm and wild animals
- Shoes
- Chocolate Bars
- Fruit/Veg
- Characters: dolls, action figures etc
- Portraits/miniatures
- World War II

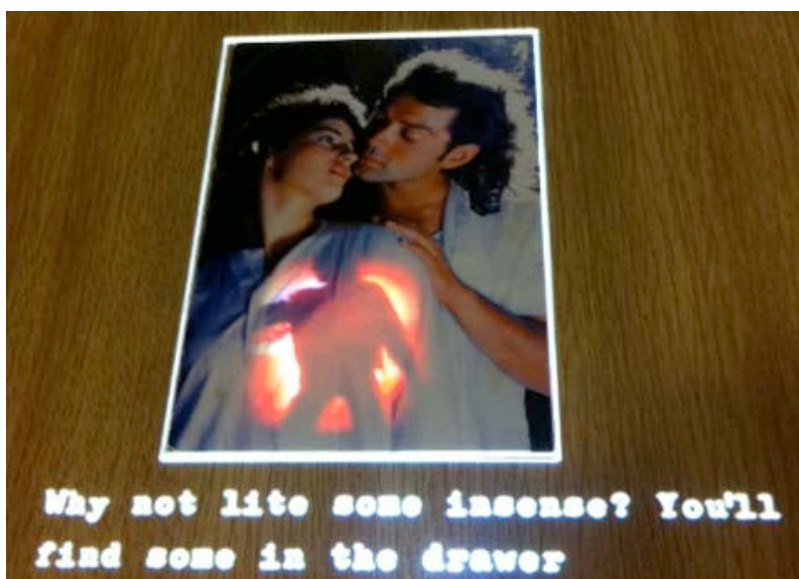
Having made your choice, you place your item onto the table top at a place indicated by a projection. Each item has an RFID tag concealed inside it. When it makes contact with the table in the correct position, an RFID reader under the table knows which item is there and triggers that particular story/experience. So, in the same way that you make a music choice with a jukebox, this system allows you to choose your story based on the varied attributes of the objects in the drawer.

Each short story is delivered via top down projection and audio and can include further choices or uses of the RFID. We may also include other end-of-the-pier style tricks and effects such as smoke, bubbles etc.

For the first Theatre JukeBOX, we made a decision to use postcards and photos as the objects/source of inspiration.

I collected boring and weird postcards as I was growing up and I also had loads of postcards, flyers and posters on my walls when I was a teenager. We found a whole stack of cards from that time, which began to spark memories and ideas.

We made a prototype of the JukeBOX in the edit suite at PMStudio to test out the ideas. We erected a downwards-facing projector on a tripod over a table and tested out a selection of ideas, all prompted by postcards or photos.



Experimenting with projection onto postcards.

It was invaluable for us to test out the ideas for ourselves and to get people's feedback. This process has led to new story ideas, effects and a development of the overall curation of our first Theatre JukeBOX.

Over the final stage of the residency, Barney has been getting to grips with After Effects and we have been trying out the basics of how it will work in terms of how to instruct people as well as writing and devising individual stories.

We have refined the idea and, although we are interested in the mobile phone technology and other techniques (and may well incorporate them in the future), for this first JukeBOX we are now limiting ourselves to top down projection, audio through headphones and RFID to trigger initial selections and further triggers, if required.

We were pleased last week to learn from Dan that the RFID is compatible with a programme that we are familiar with, called Q-Lab. Being able to create the files ourselves will make a big difference as we take the project forwards.

Our tests with people at the Studio have taught us that it is preferable to keep each experience to 3 minutes or under and that people are more likely to want to do a few short experiences than one long one.

In terms of the development of the ideas, we feel in some ways that we have come full circle. In our family we have an old metal chest containing papers, letters, some books, newspapers and records dating back to the 17th century, if not earlier. We mentioned 'the box' in our initial application and thought that it might provide inspiration for this project. It has taken most of the residency to come back to this, but it now feels that taking snippets of history and memories fits really well with the concept, as it is now developing. With this resource of family history, both mundane and important, we can create connections between the experiences, if they are taken from or inspired by the box and our family.



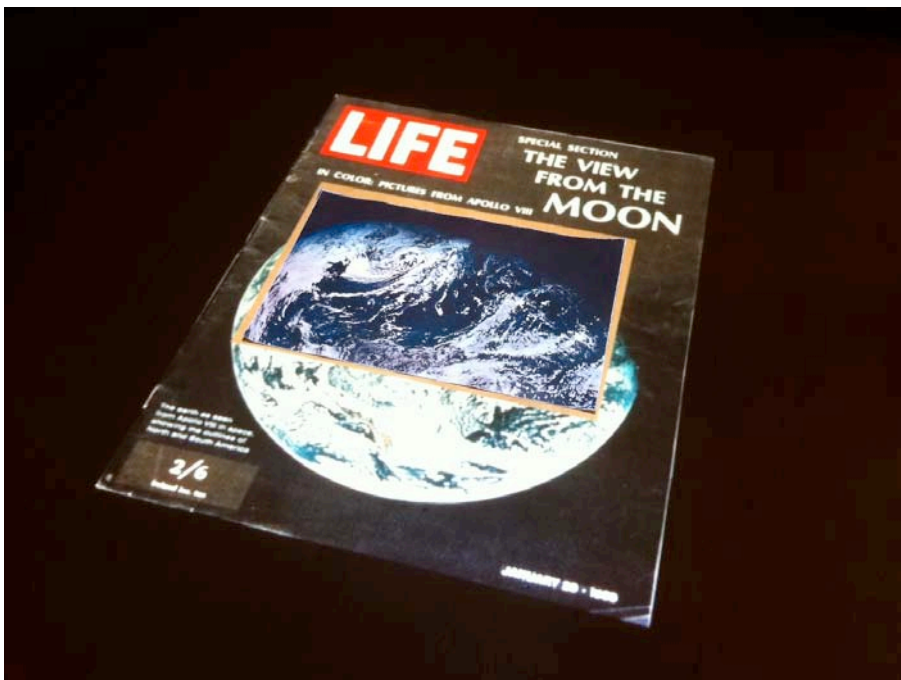
Denise and Oliver Heywood. Viner's Wood 1979

Drawing on Barney's degree show piece, 'Viner's Wood', gave us inspiration and material to get started. This piece was about a

modernist house that our Grandfather built in the 1960s and included photographs taken in the house and garden at that time, interviews with our Grandmother about the photos and a cine-film of the house as it is today.

Barney and I are accustomed to working together and collaborating to come up with ideas in parallel with techniques and technologies. It was a treat to have the PMStudio staff there throughout the residency to support us with the ideas, development and technology. Conversations with Victoria and Dan have helped to shape our ideas and the direction we are now taking this first JukeBOX.

We are now interested in exploring connections across generations of our family and the changes in technology and attitudes over time. During our most recent delve into the box, we came up with some interesting finds including letters and drawings from our great grandfather, Cecil, to his mother in the Boer war and a special edition of LIFE magazine from 1969 containing photos from the Apollo VIII mission. So, rather than just postcards, as we first thought, each story/experience in our first JukeBOX will be prompted by a picture (postcard, photo or otherwise).



LIFE magazine 1969. Projection with photograph.

One of the short experiences that we have created so far uses the copy of LIFE magazine combined with the Carl Sagan quote. So, even though our original story is not something we will use, the ideas in it are finding their way into the work.

As our residency enters its final week, we have a carpenter working on the first proper prototype based on our designs. We hope that it will be ready in time for our showcase on Friday. This will be an opportunity for us to try out the JukeBOX with audiences, which we are certain will glean interesting results to

help us with its continued development.

In terms of our aims, by the end of this week, we should have a robust unit complete with projector, headphones and RFID. Assuming that the RFID works, the JukeBOX will be automated. We still have some way to go to make it secure and possible to leave unattended and also need to test it with audiences to find out if and how they will re-set it.

In our original aims we said that we wanted the experiences to be personalised and similar to immersive theatre, but without live performers. The experiences we have created will be selected by audience members, but won't be personalised. Through our investigations into mobile technology and other techniques, we could have achieved this at some level, but decided in the end that it would not add anything artistically. This is not to say that with another JukeBOX, mobile technology, use of internet content etc wouldn't work, but they are techniques we'll keep up our sleeve for the time being.

In terms of the experiences being like immersive theatre, at this stage, we're not sure. They will be immersive, particularly through the use of audio, but I don't think we have achieved our goal of making an automated experience that can be likened to live performance quite yet. We have found that emulating live performance is difficult to do without being gimmicky for the sake of it. One potential solution that we hope to explore is the use of two simultaneous audio tracks that enable audience members to interact and effectively become the live performers.

WORKING PRACTICES

Being part of the PMStudio community has helped to make our idea a reality and to develop our working practice. A week before our residency started, we attended a workshop run by Tim Kindberg and Rik Lander about using RFID in theatre. This gave us an excellent basis and jumping off point. Since then we have seen quite a lot of Tim at the studio and he has been a particularly helpful contact and person to go to for advice.

Listening in to lectures, the Friday talks and talking to people about their projects has been very inspiring. We feel that we have learnt a huge amount about new technologies and advances such as AR, AI, RFID, Kinect etc. Just knowing a little bit more about these things is likely to affect our work in ways we don't even know about yet.

We generally work either in our studio/office or, if on larger projects, with lots of people working on the same thing. Our desire to listen and absorb everything that was happening in the studio, especially when there were talks and discussions happening around the meeting table, occasionally meant that we were a bit distracted. However, although this was sometimes challenging

because it was a new way of working, on balance we feel that these distractions have enriched rather than hindered our work and practice.

The guidelines set out at the start of our residency helped us to get the most out of it. As I explained earlier, the work-in-progress talk was hugely valuable and perfect timing. It gave us a chance to think about where we'd got to and was a deadline to consolidate our thoughts. We are looking forward to the showcase on Friday when we will be able to test the JukeBOX in front of audiences and gauge their responses.

We found the process of writing a journal much more helpful than we thought it would be. It was a really useful exercise to write down the journey and see how our thought processes changed. The prototype we will end up with at the end of this residency is essentially a very simple idea. The journals help us and others to see that the process of getting to that simple idea was actually more convoluted than it would perhaps appear.

WHAT NEXT

We see the end of our residency this Friday as the beginning of the Theatre JukeBOX. We intend to extend our development of the project into the foreseeable future, as it seems to us that the potential and versatility of this project is something that we have only just begun to consider.

After the showcase on Friday, our next audience tests and developments will be as part of Ferment at Bristol Old Vic 21-24 July. This will be a chance for us to get audience feedback and to make changes and developments over the course of the few days we have there.

We also intend to install the JukeBOX at the Watershed in the coming month to see how audiences respond to it there. We would have liked to have carried out tests there during the course of our residency. However, due to the short length of our time at the studio and the time it has taken us to get a prototype, we have not had anything quite ready to do that before now. We are excited to be at a stage where we have something to present and test.

It has been incredible to have this time to research and develop this project. So often in the past our R & D has been our devising and rehearsal time with a performance date at the end of it. These processes are intense and exciting but you often feel that the results would have been improved by development time. If it is an option, we would like R&D to be a part of every project we do.

The residency will have continued value for us in several ways. The time and space it has afforded us will give this project a firm basis to take forwards. The financial support means that we will have the unit itself and the technological equipment. This

will have value in itself but also, at some point, has the potential to help us make money through charging people to use it. Having developed this project through PMStudio, and with the support of the Arts Council, will give it a level of credibility that we hope will generate interest in it. We hope to use the contacts we have made at the studio to make further contacts with people who could use the JukeBOX for their enterprises and funders who might help us to develop it further.

As well as using it as a vehicle for our own artistic expression, we think the JukeBOX has potential to be used in the following ways:

- History (museums, education etc): as a tool to teach people about historical periods or events through relevant objects
- Education: as well as history, the JukeBOX could be used to teach people about other subjects such as health-related matters, geology etc. In addition, it could be used as the basis for a workshop where we would go into an educational establishment and develop a series of short experiences or stories with the participants
- Advertising: as an interactive way to market products

Regards potential collaborations and additional opportunities, we hope that our relationship with the staff at the studio will continue and that they will be able to input their thoughts and experience into the project as it develops. We can see the potential for future collaboration with Tim and Rik to help with programming RFID if our requirements become more complex.

Outside the studio, we have been asked to present the project at Ferment at BOV, as mentioned above. The Roses Theatre, Tewkesbury have asked us to be associate artists and present the JukeBOX at their open day as part of their digital strategy. And, we have also been updating our contact at Battersea Arts Centre, with the prospect of a residency there to develop it further looking likely.



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