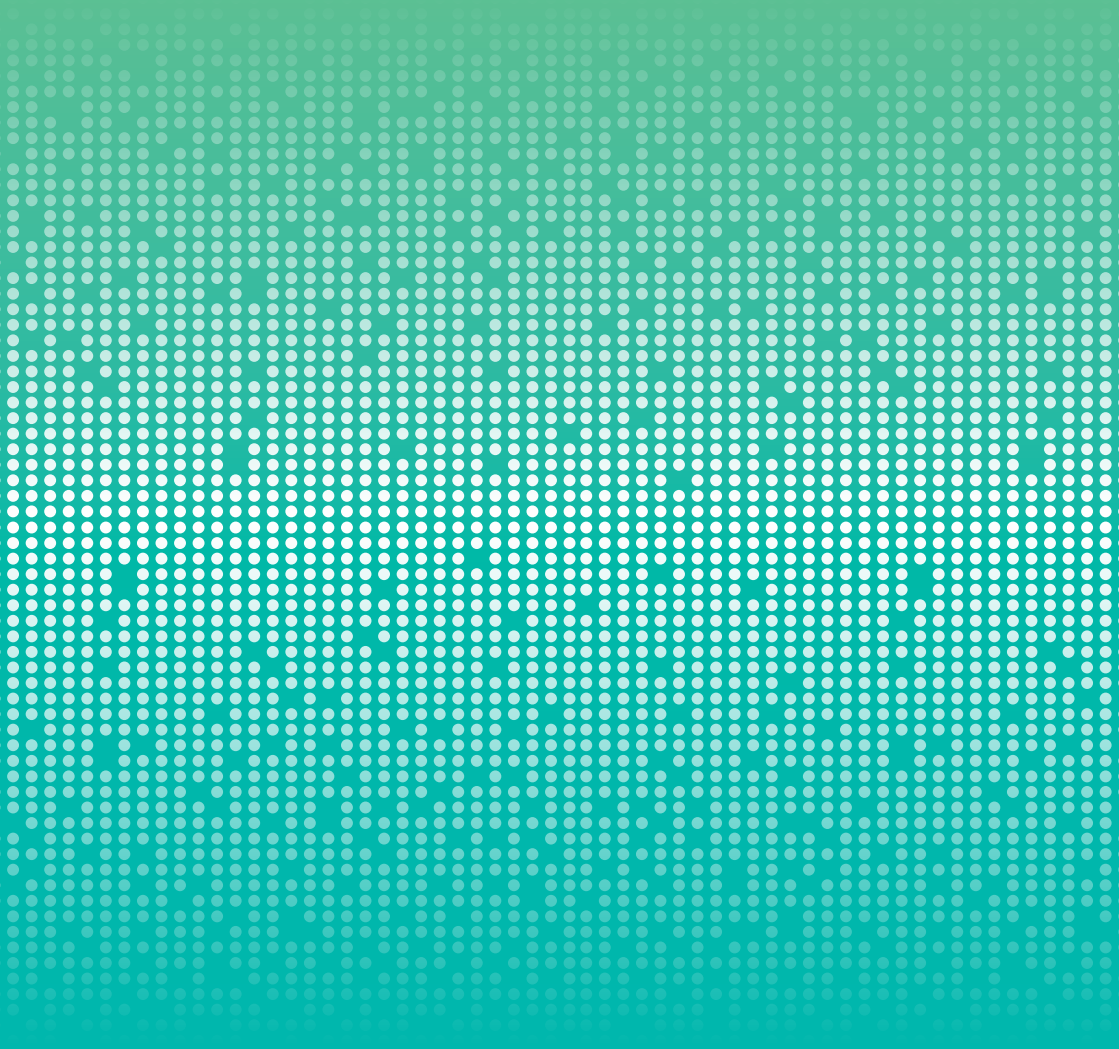


Nesta...

What We Have Learned

Digital R&D

for the Arts, Scotland



Jackie McKenzie
Nesta, May 2014

This set of case studies are snapshots of the ten Scottish projects who were awarded funding from the Digital R and D for the Arts in Scotland during 2012-14, a programme which was funded by Nesta, Creative Scotland and the AHRC.

The projects were testing new digital initiatives which would:

- Diversify or expand their audience
- Deepen the engagement with their audience
- Support new income streams by exploring new business models

Nesta...



Nesta...

What We Have Learned Digital R&D for the Arts, Scotland

Each of the projects agreed to share their learning so that the sector would benefit from their individual and collective experiences. From these ten case studies you will see common issues emerge, which include the following:

- Working with a technology partner can be a deeply useful experience, but the partnership works best where there is a collaborative approach and the technology partner is not simply a supplier of services. The best projects were ones who took a genuine partnership approach and worked with the technology company as creatives who could bring original thinking to the project.

- Timing is critical - all of the projects took longer than originally estimated, perhaps because they were doing this pilot work in addition to their day jobs and even with the best laid plans, technology issues can arise. It needs time too to see a change in behaviour/the results of the digital intervention (eg increased users/revenues) and long term tracking of the data would be helpful.
- User testing is essential- do this very early and do it often. You don't need to wait till you have a finished product- 'quick and dirty' prototyping can give you excellent feedback to inform the build.
- For digital to be embedded as 'mission-critical' in your organisation, you will need buy-in not only of the senior management team, but also your Board/ Trustees so that the work is seen as a strategic priority. Policies may need to be re-written as a result of the digital work.
- Money - it goes without saying that you will need resources (cash and staff) to support this and importantly you will need to allocate marketing spend to ensure the digital product can be launched, build a user base and then sustained.

We hope you find the following of interest and of use to your own work in this area. Electronic copies of these case studies and more learning insights on our work in cultural digital innovation across the UK can be found on:

nesta.org.uk
native.artsdigitalrd.org.uk

Glasgow Film Theatre

The Player



“It’s part of the excitement of doing something like this — you know it’s going to rock the boat”

Andy Green

Chief Operating Officer at Distrify

Glasgow Film Theatre (GFT) and Filmhouse, Edinburgh, developed the Player, an online viewing platform that provides a curated selection of films, with their technology partner Distrify.

The partners wanted to widen audience access to the two cinemas, and through the Digital R&D project were two of the first cinemas in the UK to make some of their current programme available online.

Although the project initially met with considerable resistance from film distributors, since the launch some of those attitudes have changed across the industry.

“I’m passionate about access,” says Jaki McDougall, chief executive of GFT and the Glasgow Film Festival.

“Not everyone has a GFT on their doorstep and, even if you do, you can’t always get to it for whatever reason — childcare, disability, older people who are getting out less — so that was a big driver for me.”

One of the main research aims of the project was to try to understand the reasons why people go to the cinema and what they take from the whole experience, and then to develop a way of incorporating some of those things into a video on demand (VOD) facility.

A broad aim of the project was connecting the digital with the physical — using the Player to create a strong connection between the VOD audience and the cinema.

“I’m very passionate about going to the cinema, and view the cinema as the best place to watch a movie,”

Andy Green

Chief Operating Officer at Distrify

“So we were looking at how to extend our VOD audience in relation to a cinema audience. What are the connections — how do people consume, what is the relationship with cinema and curation — and how does that extend to online.”

The Player — the platform Distrify developed for each cinema’s website — allows users to stream a film online for a fee after registering, and the film is then available to watch for 30 days.

The two cinemas offer their own selection of films backed by their own individual brand and identity, which was one of the most important factors in the development of the project.

“It was important to work with the Filmhouse as well to see the differences — who the GFT Player was attracting and who the Filmhouse Player was attracting,”

Says Jaki McDougall, chief executive of GFT and the Glasgow Film Festival.

“The curation was so important, and so was the loyalty and trust that people have in the brand. There’s so much out there — we show over 600 movies a year, and people find it difficult to navigate what to watch. Something like the Player was giving them that sort of stamp of approval.”

One of the main lessons of the research process was the importance for audiences of the GFT and Filmhouse brands.

“When we included the logo of either the GFT or Filmhouse, the conversion rate was considerably higher than if it wasn’t included,” says Green.

“That tells us that the value of a cinema is highly important — even when the audience isn’t actually in the cinema.”

Distrify analysed the audience data after the Player's launch. The data produced some surprising results — for example the audience demographic was much older than the partners had expected.

Through the R&D process, the partners took the approach that it was important only to understand who their main audience was and to try to communicate with them effectively, rather than seeking to understand why that was their demographic.

“Through market research, metric groups are drawn, we make assumptions and we seek to qualify them,” says Green.

“But the assumptions that we had didn't really ring true. What we discovered was that we weren't making assumptions — we were finding out. For the research, that was one of the most surprising things — in a way it wasn't important what the metric group was, it was just simply important that it was the audience.”

One of the key barriers for the project was gaining access to films to use on the Player, because of resistance from film distributors. However, those attitudes started to change after the Player was launched, and this has become one of the project's key successes for the partners.

“That was the barrier — actually getting the product,” says McDougall. But things are starting to move in the sector, and there's now interest in the UK and across Europe.”

“I've had distributors in the US phoning up and saying can you tell us how this is working,”

Andy Green

Chief operating officer at Distrify

“Although the resources of the project were relatively small, it got attention around the world. I'd go to film markets in Australia and the US, and they all knew about the Player and wanted to know more. The distributors who had been reticent were interested to see what had resulted from those first steps.”

“The European organisations that wanted to burn us at the stake about a year and a half ago — who were really dogmatically resistant — have recently said OK, it's time to look at this. And that is truly a mark of the success of the project. One of the single biggest outcomes, as small as it may seem, is to have this dogmatic part of the industry question themselves about it. The creativity and innovation through the research has permeated beyond the project.”

The relationship between the creative partners and the technology partner worked well during the project, and part of that was down to sharing the same goals, particularly the desire to innovate.

The Filmhouse and GFT had different approaches to the project, but this was seen as a positive by the partners.

“GFT has always wanted to do things first,” says McDougall.

“We've always pushed in that way but we'd always blundered through things on our own, and this was a brilliant opportunity to have someone who knew what they were doing. It meant there was someone who could answer my questions, and bringing the Filmhouse in as well to compare, contrast and benchmark against — that was essential.”



“We’d never have been able to look at where the audiences were without Distrify. We wouldn’t have had the ability to look at what was enticing them to buy the product, and where they were and when they were using it.”

“It’s why our organisations fit,” says Green. “It’s a highly radical approach both for the VOD side and the cinema as well, given the resistance [from distributors]. It’s part of the excitement of doing something like this — you know it’s going to rock the boat, and the partners have to be willing to take that risk. It’s a risky area, and that’s where the real innovations are going to come from.”

Other factors that made the relationship work well were strong levels of communication and trust, and a good personal relationship between the key people working on the project.

“The interpersonal part is considerable when you have something that is risky and innovative,” says Green.

“You need to have a good social relationship with your partner. When it gets complicated and difficult, to be able to go for a drink and see how you’re going to work it out is really valuable. It’s part of the success of our project that we were able to discuss the difficult parts.”

Research and development is something that is key to the partners on the project, and allowed a slightly different approach to the end product.

“For Distrify the imperative is always commercial, so to enter into this R&D project was highly valuable because it took a little bit of that pressure off,” says Green.

“Often some of the things you want to work on and invest in get pushed to the side. Time influences commercial outcomes. The true value is to have that space to think and discuss. There were little parts of experimentation on the project that were not always radical, but the ability to trial and test and change really enabled a greater development.”

There are now further developments that the partners want to work on, including increasing the amount of content available on the Player, sharing the research and outcomes of the project with other organisations, and using the data to create a successful business model that could be used and developed further by other cinemas.

The GFT is also developing other digital projects, including trying to make Scottish films accessible online to an international audience, and opening up the GFT archive. They are also looking at bringing together audiences of the Player to create more of a community.

“In Scotland there are still massive local authority areas where they don’t have a cinema, let alone an art house cinema, and there’s no space for communities to come together,” says McDougall.

“We’d always talked about what else we could do with this project. It could be about that curated programme being available to communities, not just to single users — but that’s another project.”

“It might not be GFT or the Filmhouse that takes it forward, but we want to be part of it. And if we’ve kick-started it a bit then that’s good enough for me.”

Marjolein Den Bakker

Programme Co-ordinator,
Filmhouse, Edinburgh

“The whole project was an interesting experience — it had its ups and downs and was challenging in parts because the different venues had their own ideas. People also had their own work to do, but once it was up and running it was really good, and people have been enthusiastic about it.”

“In the beginning Distrify had a really big idea, so we had to get everyone thinking the same way — perhaps lowering their expectations and raising the cinemas’ expectations.”

“The Player gives us an extra screen, extra capacity, and the opportunity to show more films. A film might only be on for a few days in the cinema and this gives people more opportunity to see them.”

“Some cinemas have been sceptical about it — so we’re trying to show that people will still go and see a film if it’s available online because the cinema is still better. It’s extra to the cinema.”

“At the Filmhouse we embrace digital technology — we always make sure we have the best quality on the screen and we’re high up the scale digitally on the cinema side of things. When it comes to other areas of the business, some digital things are done really well and other things could be done better.”

“This project has made us aware that we can do more, and that there are more opportunities. At the moment there isn’t the funding to make the Player better, but it’s there and it works and it can be developed.”

An Iodhlann, Tiree

Frasan App



“The app has raised the centre’s digital profile, it has dragged us into the 21st century and has made us realise what we might be able to do”

Janet Bowler

An Iodhlann, the heritage centre and archive on Tiree, worked with two technology partners based on the island to create Frasan, a multi-platform app that collates some of the archive’s artefacts and links them to the island’s 32 townships.

The Digital R&D project fits into a wider move on the island towards becoming more digital, and is strongly linked to a continuing campaign for better internet access and more co-ordinated digital communication. The app also has links to other digital projects and collaborations with partners off the island, and the partners hope to develop it further in the future.

An Iodhlann has a collection of about 15,000 artefacts, including books, letters, sound recordings, photographs and maps, which are housed in the heritage centre’s building near Scarinish, the island’s main township.

Some artefacts had already been archived digitally on An Iodhlann’s website, which is now being developed to complement the Frasan app.

One of the project’s main aims was to get more people to engage with the heritage and landscape of an island that has only 650-750 residents, where the main attractions for tourists are windsurfing and other watersports.

“Our problem is reaching out”

John Holliday

Chairman of An Iodhlann, and the island's GP

“Not many people come into the building – some people find museums a bit intimidating, and one of the problems on Tiree is that much of our summer visitor influx is watersport-oriented. They rush past the museum on the way to the beach, and we wanted to give them a facility to engage with the history and culture of the island.”

There was also a desire to engage with the resident islanders, and making the centre's artefacts available digitally allowed access to a younger demographic.

“There's a lot of young people on the island who don't come in here. They're quite daunted – it's pretty text-rich and they're used to using screens. Getting their attention was a big factor in taking part in this project,” Holliday says. *“People like to use mobile screens in their own space and their own time. That's key to younger audiences – if you want to work with a younger audience then you have to engage with them.”*

The initial idea for the project came from Alan Dix, who lives on Tiree and is Professor of Computer Science at the University of Birmingham. He joined Mark Vale, a computer programmer on the island, to create the technology partnership.

“We are at the edge here, and digital technology is more important because of that. We're really trying to grapple with that tension of its importance and its difficulty at the same time,” says Dix.

That tension between the need for digital technology and the practical difficulties of accessing it was one of the project's main challenges.

The lack of web access and mobile phone signal meant that the app needed to work without the internet.

“The island internet and mobile connection is a big problem,” says Dix. **“The internet itself is quite low-grade, but from a mobile point of view there is literally no connection. You're lucky to be able to get a phone call, let alone do anything that's data-oriented. Our problem was how to design that in a way that would work easily with multiple phones, yet also work when people have got no signal.”**

Dix used HTML and HTML5 to create the app, allowing users to download all the information and use it without internet access. Holliday then worked with Janet Bowler, An Iodhlann's archivist, on creating the content.

Holliday's interest and expertise in local place names led to the idea of geo-locating the artefacts, linking them to Tiree's 32 townships. “I've got 3,500 place names on the island with stories attached, so I can locate the historical narrative to particular places,” Holliday says.

“My role was to geo-locate the 3,500 place names, and Janet worked to go through the 15,000 items and find what we call our crown jewels – the ones that are particularly interesting and located in a specific place.”

The project is part of a wider digitalisation of life on Tiree, which islanders are embracing while attempting to maintain the island's traditional way of life.

“Tiree's digital profile is actually very good,” Holliday says.

“We've got websites, and a high-quality digital technologist on the island. There's a lot we could develop for our own use, but we want to face outwards too to bring people here and to interact with the outside world. This app is part of it. I'm a terrific believer in the usefulness of digital powers to small, peripheral communities like this.”

The app will also be used to link the island's data to other communities.

"The way you're visible in the modern world is through digital data, and we're looking to become an open data island," Dix says. "There are wonderful things about technology, but its easy to do things that are global in the modern world. The crucial question is how we can use digital information not to become global, but to enhance and open up and make rich and share the richness of our historical locality and our current local traditions."

Frasan was launched at Tiree Tech Wave, a biennial event organised by Dix that brings technologists, artists and product designers to the island.

Other digital projects on the island that are linked to the app include a digital communications development programme.

"There's a variety of projects that are separate but are all coming together to try to create some sort of integrated infrastructure," Dix says.

"Everyone thinks in a rural community that everyone knows everything - telling people about events and keeping them informed is actually very hard. We've got 650-700 people - the size of a medium to large street in a city - but we're spread over an area the size of Manhattan. So we're also starting to install a number of information screens around the island to improve communications."

"Digital improvements have made a huge impact on the island. People here are completely and utterly connected to the real world," says Holliday.

"The community used to look backwards, now it looks outwards and forwards. The internet has profoundly changed the culture and the intellectual environment of the island, the way the Second World War did, when 2000 servicemen were stationed here."

There were also frustrations regarding the limitations of the app, both in terms of the amount of data that could be stored, and the problems of connectivity for the geo-location facility. "The fact that it's been a very small-scale project has in some ways been frustrating," says Holliday. "We've got a very big collection and we'd love to make a lot of this much more available. Where the project will lead is an interesting subject."

Working as a team based on the island was key to the project's success, and provided a set-up that will sustain future collaboration and projects. The centre will continue to develop its website, and John Holliday wants to use the knowledge he has gained about geo-location to expand his project on the island's place names.

"One of the big things from an archiving point of view is that the geo-location skill is now embedded in our work, and that allows future presentation of the data to be much easier. That's a huge step forward for a small place."

"We still need better coverage and to make the app data richer and to get over some of the technical limitations. Until we can do that then the potential is limited - this is right at the limit of the technology. But the project has produced a team that can do it in the future."

Overall the team feels the project was a success, and that it has allowed scope for more digital development.

"This has been a mind-enhancing process," says Holliday. "I've got the chance to present some cherished, historical cultural items to a bigger audience, which is deeply pleasing. I've loved working with the team - it's been great."

"I didn't realise before the project just how absolutely remarkable this centre is," Dix adds.

"The quality is enormous, so to be a little part of making that more available is absolutely fantastic. As an academic I've been involved in multimillion-pound projects, with huge budgets, but I have never been more excited about anything than this."

“I look after An Iodhlann’s website and am developing a new website for them, placing the archiving system on the web, so it’s Completely accessible to the many people that have an interest in Tiree but aren’t here.”

“There was a small group of us who moved here nine or ten years ago and we needed good IT connections because of our jobs, and there weren’t any – Tiree was a long way down the list for broadband. So we started a community broadband network fed initially by a satellite feed, and supplied about 40 households. It now covers about 120 households. It’s becoming a requirement of life – people won’t book a holiday house here unless there’s broadband.”

“Digital means more here than it might do in the middle of a city. There are things you can’t access here directly, but through a digital medium perhaps you can. It allows for remote interaction, for example Skype, or even just email. They are things that bring a physically remote community closer to the rest of the world.”

“There’s a social shift that would potentially be of benefit to the island – with better communications, infrastructure and technology people can spend more of their time here. We have an issue around population numbers but we’re seeing a shift, and it’s changing the population of the island. That is all driven by digital infrastructure.”

“The project was challenging because all of us have many other things to do. Scheduling was surprisingly difficult, but working together was easy and it worked very well. There were some issues around communication, and there are things that need polishing.”

“There’s the will and the technology for the app to develop – it’s all quite open and modular and scalable, its ready to be changed. It’s just about pinning down what the progression will be.”

“My work involved seeing what would relate in the most interesting and accessible way to the landscape. I tried to think of it from a user’s perspective – what would they find most interesting while they’re out and about.”

“It involved creating a text database and geo-coding all the items. The idea was that you could walk about the island and the app would flag up something close to you in the archive relevant to that position in the landscape.”

“You could be standing in Scarinish harbour, for example, where there’s an old wreck of a trading ship, the Mary Stewart, and you could be looking at the wreck and also looking at a photograph from the archive of the ship in full sail – so it would really take you back in history in that one step.”

“This is the way forward for archives, especially one as remote as this. A lot of our enquiries come from the descendants of Tiree people who emigrated, and for them to come here is quite problematic. We’re developing the new website to allow people to search online, so instead of coming to me, they can do it themselves, remotely. It’d take a lot of work, but ultimately we’d like everything in a digital form.”

“The app has raised the centre’s digital profile, it has dragged us more into the 21st century and has made us realise what we might be able to do. We always realised that we would have to make the collection available to view online, and this was the first step in showing us how to do it.”

“It was a lot of work, very interesting, and exciting to create an app for our little archive on our little island, putting us forward into the 21st century.”



Dundee Contemporary Arts

R&D Workshops / Prototypes



“The workshops — which we were expecting to be a stepping stone towards making an end product — ended up being a really amazing outcome”

Yann Seznec
Lucky Frame

Dundee Contemporary Arts held a series of workshops with their two technology partners, Denki and Lucky Frame, to explore how the principles of game design, and creative ways of working, could inform DCA as an organisation. The three partners also went on to develop two prototype, interactive objects as a result of the workshops: a donations box and a loyalty card scanning system.

Clive Gillman, director of DCA, uses a quote by Ted Nelson, the technology pioneer, to explain the thinking behind the project.

“Nelson asked why games are often so much better designed than office software, the reason being that people who design office software look forward to doing something else at the weekend, whereas people who design games love playing games. That was our starting point for the project.”

“We were aiming to demonstrate that a different kind of thinking could help us to deal with some of the problems or challenges we might have as an organisation.”

Gillman and his team wanted to look at some of the working issues DCA faced, such as how to better engage its audience, while keeping the Nelson quote, and the concepts behind successful games design, in mind.

DCA looked to Denki and Lucky Frame, two games design companies with which they already had a working relationship, to set up a series of workshops involving staff from all three organisations.

“I wanted to engage the games design companies more deeply with us as an organisation – to explore how their thinking and approach might influence some of the things we were doing,” Gillman says.

“The idea was to look at the ways in which those companies work – how they design games and what the principles are that determine their success – and then to look at how that could work within DCA.”

DCA aimed to involve as many members of its staff as possible in the workshops to engage with the project and to ensure that the R&D process reflected all aspects of its business, and all of its people.

“One of the key things we had to do was get our staff to think about how games actually work,” Gillman says. “Like what do you get from playing a game? What’s the process of engagement, and what’s interesting and exciting about that?”

One of the primary aims of the workshops was to generate ideas through the process of teaching the DCA staff how to play a wide variety of games, which had been selected by the technology partners as the most effective tools for the R&D process.

“They weren’t necessarily off-the-shelf shoot em ups or anything like that – they were games that challenged people’s understanding of what a computer game might be,” Gillman says.

They included multi-player games, encouraging teamwork, and one in which the winner was the player who came second in a race, making the players think differently about successful outcomes.

“We also did some stuff around Angry Birds, which has a really simple interface but is something that can be quite addictive, and we were looking at how you can play with that.”

As a result of the workshops, the partners identified key areas of DCA’s business that could benefit from further development, and which could be used to create more concrete outcomes to the project.

Two main ideas emerged, both of which focused on the transactions that take place within DCA.

The first focused on improving its donations box to make it more interactive, involving visitors as soon as they walked through the door.

“We were focusing on transactions as being key – playing a game is a very specific transaction,” says Gillman.

“We wanted to explore how we could make the process of engagement with the donations box more interesting, and that was a very natural opportunity for some of those games design principles.”

DCA’s technology partner Denki then worked with staff to look at what might work.

“Denki wanted to explore with them things such as how people see it, how they perceive it, who puts money in, what sense of engagement do people have when they’re putting money in. Is it a passing gesture or a very deliberate act? There were lots of conversations that went on to refine the project.”

Colin Anderson, of Denki, came up with the term ArtCade as a working title for what they were hoping to achieve, capturing the idea of combining art and entertainment.

“Colin’s concept was that to make a donations box that really functioned effectively as a game it needs to have a certain set of criteria. They were defined as things like – it had to have a coin slot that triggered something that you could take away from it, and there needed to be constant variation.”

They came up with the idea of a set of four coloured, interactive boxes. The box, installed at the main entrance to DCA, also contains a hidden game.

“We didn’t want to tell anybody how it worked. It had to be self-evident – that’s a really strong principle in games design. There’s that principle that if you can’t work out how it works within two clicks, then you’re not going to connect with it.”



The second prototype involved developing DCA's loyalty card scheme. DCA wanted to expand the existing scheme to capture visitor data about the free parts of the building, such as exhibition spaces. Through workshops with Lucky Frame, a small digital company with three members of staff who design and make interactive work, DCA developed the idea of a scanning machine with a touch-screen interface that aped aspects of games design.

They are currently using a machine lent by NCR to test the process.

“The technology has a particular architecture and functionality, so we're having to work to make that operate within the building. Some of that may not be as intuitive as we might want, but it's allowing us to test out the device in a way that's fairly robust.”

The two prototypes were unexpected, tangible outcomes of what was conceived as a deliberately open and exploratory R&D project.

“What we now have as a challenge is how we sustain and monitor that, report on it and use it to influence our future behaviour. The prototypes have given us something much more concrete that we can now look at into the future as to how we can learn from those as working objects in the building.”

Staff reacted positively to taking part in the workshops, and have been involved with a continuing consultation process since then.

The development also presented several challenges, the biggest of which was completing the project within the timescale. Focusing on the R&D workshops rather than creating an end product meant that the project was sometimes put aside by all three partners.

“Most of the time you're just working on the next project. The two games design companies were very committed to the project, got a lot out of it and enjoyed it. But the problem is that they have to get the next game out and might suddenly get a commission to do something, and those things had to take precedence.”

This meant that the initial timeframe was unrealistic, and the project overran.

“If we'd really looked at that at the beginning, it would've been apparent that we would never have made the initial timeframe, and in the end we ran over massively. But that allowed us to generate what I think are pretty good outcomes – and Nesta have been really good at recognising that and working with us on that. They've been positive, supportive and interested but not particularly directive. They 'got' the project and enabled us to keep working on it to produce good outcomes.”

Focusing on the workshops as an R&D tool and keeping an open mind about any outcome was key to the project's success, and it is something DCA would encourage other organisations to do.

“As an organisation that is interested in digital R&D, I'm less interested in seeing how other people have developed apps than actually thinking about how someone has really explored a technological possibility that I can learn from, and may not have thought about as being possible.”

“Looking to use the technological expertise that exists out there to inform how cultural organisations function struck me as a really positive thing to do. So rather than an organisation saying, ‘We know who we are, we know what we're doing, we just want a technologist to produce this solution for us,’ there's a lot more to be gained by inviting those people into the mix a little bit and having a much more extensive conversation about the possibilities.”

Overall, the project has been a positive experience for DCA, Gillman says.

“I found it a really rewarding project – I really liked the conversations that we've had with the partners. Having the opportunity to sit back and work with some interesting minds to think about the possibilities and the opportunities for these kind of developments in a building like this has been really useful and beneficial.”

“I'd like to do one of these every year! That would be perfect – bring in a new set of partners, explore some ideas, and then start to work towards some prototypes and keep building on that. That would be fantastic.”



“At Lucky Frame, R&D is something that we don’t think of as being separate. In some ways, everything we do is R&D - it’s part of our creative process.”

“The workshops with DCA were amazing. We hadn’t done many before, and we weren’t sure how they’d work out, but they worked out super well. It was great to work with people and show them how a creative process can be a really rewarding experience. It worked well for DCA and for us too — the reactions we got were surprising, created a really great atmosphere and helped to develop understanding.”

“It was especially good to work with self-proclaimed sceptics and win them over. For us it was good to step out of the world we’re used to and the kind of audience we’re used to addressing, and work with people who say at the outset that they don’t know why they’re there.”

“The focus on the R&D process in the DCA project is what attracted me to it — I think it’s the only way to do it. When an organisation identifies a solution, often what they’re actually doing is identifying a need or a problem, and then the solution isn’t necessarily the right one for any number of reasons.”

“For us the end product was important, but what was surprising was learning that the workshops were actually such a great end product as well. We expected the workshops to lead to an important end product, whereas the end product actually ended up being hampered by technical limitations.”

“But the workshops — which we were expecting to be a stepping stone towards making this end product — ended up being a really amazing outcome. And what was interesting was that it was a real surprise to us.”

“I went to two of the workshops, and they were both useful and informative. We were asked for feedback on what happens and how we could get people more interested in these things, and we went through different team skills and communication.”

“It involved creating a text database and geo-coding all the items. The idea was that you could walk about the island and the app would flag up something close to you in the archive relevant to that position in the landscape.”

“You could be standing in Scarinish harbour, for example, where there’s an old wreck of a trading ship, the Mary Stewart, and you could be looking at the wreck and also looking at a photograph from the archive of the ship in full sail — so it would really take you back in history in that one step.”

“The donations box is good because when people come in they see it straight away and look at it. About half the people who come through the door notice it and come over and look at it before putting money in.”

“The loyalty card prototype is a good thing for DCA and if it was even more interactive perhaps it would get even more people interested in it — if it was more game-like. It is quite a simple thing, but then sometimes simple is beautiful.”



Filmhouse, Royal Lyceum Theatre, Traverse Theatre, Usher Hall Culture Juice Website



“If you don’t engage with digital, you get left behind — you adapt or die”

Tessa MacGregor

Four arts venues in the West End of Edinburgh — the Royal Lyceum, Usher Hall, Filmhouse and the Traverse — worked collaboratively with their technology partner, Tictoc, to create an umbrella website providing ticket offers as a way of sharing audiences, and encouraging more visitors to use all four venues

The website, culturejuice.com, is part of a wider project to establish the area as Edinburgh’s ‘cultural quarter’, and they wanted to do that using digital technology to reach a younger audience group that the venues had found difficult to engage through more traditional marketing channels.

Marketing staff from the four venues had already held regular discussions and meetings about how they might pool their resources to work collectively before the Digital R&D project.

“We’d all struggled to engage students and young professionals in the 20 to 30 age bracket,” says Tessa MacGregor, communications officer at the Usher Hall. “We thought that by getting together collaboratively, we could offer more art forms under the same umbrella. We were approaching it from a marketing perspective, where we could promote all of us, and also encourage people to visit our venues through a digital platform.”

The venues worked with Tictoc, a digital agency with offices in London and Glasgow, to explore how they might best target that younger audience, particularly outside the busy festival periods.

Tictoc had worked with other arts organisations on digital projects, which gave the venues confidence about their approach to the project.

“The fact they are based in Glasgow was good, and also the fact they’d worked with other arts organisations, as that’s very different from delivering projects for other industries,” says Emma Robertson-Werner, communications manager at the Lyceum. “We knew they understood what was required in terms of what our approaches were.”

Bringing together the four organisations with the digital partner posed significant challenges, but was a fruitful way of cementing what had been until then an informal relationship.

“Working with all four venues was exciting. We all work so closely together, across similar art forms, but it’s always been a case of never the twain shall meet,” says MacGregor.

“It was really exciting at the beginning when we were developing the brand and the name and all the parameters.

“It was interesting to get that digital intelligence from Tictoc, but to have the opportunity to work on something that was freer than our normal day-to-day marketing activities. We worked really closely together and continued to question and challenge each other.”

Although the initial idea had been to create a ticket-selling app, it became clear early in the project that the four different box office types would make this impossible.

“Our mission was to be able to sell tickets through Culture Juice, but we soon realised that wasn’t going to be a reality because the systems couldn’t talk to each other,” says MacGregor.

Instead the venues decided to use the website to promote offers that would then direct users to the individual venues’ websites for ticket purchases.

Tictoc suggested that a static app was not the best solution to do that, particularly as the venues would be posting a lot of new content. Instead they advised that a mobile-enabled website would be a better use of resources, giving the venues greater flexibility.

“Tictoc were really fair in advising us not to do an app,” says Robertson-Werner. “A huge amount of money was allocated for that, so to honestly advise us that it wasn’t necessary was really useful, and we then didn’t spend money that we didn’t have to.”

The venues and Tictoc instead looked at the ways in which they could reach the target audience using the offers, and in particular how to do that outside the traditionally busy periods for the venues — the Edinburgh festivals in August and the International Film Festival in June. All four venues experience a significant surge in ticket sales during the festivals, and communicating their marketing message outside those times was a key aim.

“Artistically, there’s a lot of work that goes on in Edinburgh outside of August, and we’re always trying to push that cultural and arts message out to Edinburgh citizens for the rest of the year,” says MacGregor.

“The culturejuice.com website encapsulates our art forms and productions and content, and we’re using the site to curate the content we think would be valuable to our target audience.”



The Digital R&D project provided a new, collaborative way of working for the venues, which presented significant challenges but has also provided new ideas and opportunities for further digital projects.

“The Nesta funding allowed us to work collaboratively, which we hadn’t done before,”
says Robertson-Werner.

“That was interesting, and so was working with a digital partner — you always progress differently when you’re working with different partners. The Lyceum’s engagement with Tictoc was really positive, which was encouraging. Things like this keep digital at the forefront of what we want to do.”

Working collaboratively made the end product stronger, says MacGregor.

“Having four marketing people involved, who always have different ideas and approach things from different angles, helped to grow the project — it made it more thorough. There were always four voices and four ideologies.”

“We all believed in the purpose but the approaches were bound to differ. That made the project more robust — it meant we constantly questioned things.”

The timescale was a key challenge, and the large number of partners involved meant that it was sometimes difficult to manage time effectively. It also meant that some staff turnover was more likely — neither the Traverse nor the Lyceum had anyone on the project from start to finish.

“It was almost like it took us four times as long,” says MacGregor.

“We were all juggling the project with our existing workload and we all have different peaks and troughs in the year. Resources wise, time was really key — we didn’t have enough of it to really properly attack it.”

The project has provided a starting point for the organisations to continue working together, and to develop the idea of Edinburgh’s cultural quarter.

“We’ve all got to know a bit more about each other and we understand more how each of us works,” says Robertson-Werner.

“Despite having visited each other and been in meetings together, until you work collaboratively you don’t get to find out more, and that’s been really interesting.”

“It’s also been interesting looking at how our culture is different in terms of the way we work,” MacGregor adds.

“That was both a challenge and a joy.”

The project forms part of a wider move in all the organisations to use digital channels.

“The Lyceum is quite a digital organisation,” says Robertson-Werner. ***“We were one of the first arts organisations in Edinburgh to use Facebook, and our website was redeveloped about a year and a half ago, which was a big project and investment.”***

The Lyceum is also looking at revising its box office system. About 40% of the organisation’s ticket sales are generated online, and it is something the venue wants to update in line with other digital developments.

“We’re just about to pull our Twitter feed on to our homepage and we’d love to implement a calendar-type function. These sound like small changes but they take time, money and development.”

The Usher Hall is also planning to refresh its website, which, MacGregor says, is key to keeping on top of digital developments.

“For us the future is about staying ahead of the curve. A website is only the beginning of digital engagement but for any ticketing organisation it is key in so many ways — and any innovation or development in these areas can only benefit everyone.”

Keeping up with trends and changes in how audiences use digital tools is key to how the venues operate.

“If you don’t engage with digital, you get left behind — you adapt or die,” says MacGregor.

“More and more people are engaging with the arts digitally — we all have to engage with people on that level. It’s not about just when people are at the theatre, it’s about how we talk to people even when they’re not in our building. It’s key.”



“People get used to booking flights or shopping online — they have expectations of what’s possible,” adds Robertson-Werner.

“Arts organisations have smaller budgets to enable them to do digital work and can sometimes get a little bit left behind. Meeting the expectations of our consumer base is challenging on a limited budget but it’s really important. People have expectations and we have to keep ahead of the trends.”

The key benefits for the partners were having the time to become fully involved in the R&D process, and the overall learning.

“We’ve learnt so much about how we work, how the other venues work and the diversity of programming and audiences,” says Robertson-Werner.

“It’s been a really positive experience with the digital partner, which has made us unafraid to try again with other things. You know that there are companies you can trust to move the technical side of your business forward. It’s been really beneficial — it’s made us reflect and look forward.”

R&D is something the venues use constantly, but the project allowed them the time to explore it fully.

“The more R&D you do, the more answers you get to things you didn’t think you could get an answer to,” says MacGregor.

“Our normal days are so busy, you don’t stop often enough to look at R&D. We all need to evolve, and R&D is essential to do that — it’s been great to explore it. We would never have had that kind of budget to spend on R&D, and we’d never be able to realise our dreams or ambitions without this kind of funding.”

Digital projects should be embraced as part of all arts organisations, the partners suggest.

“You become aware on a project like this that the digital part is just an enabler to give you a digital aspect to your marketing work — it doesn’t exist outwith your world or environment,” says MacGregor.

“It’s very much a partnership and a conversation that’s quite easy to have. Don’t be bamboozled by it.”



“R&D takes up a large chunk of all of our projects — getting that 100% right helps things to run as smoothly as possible, and everything relates back to it.”

“With commercially-driven clients it’s sometimes easier to see what they’re looking for — with arts organisations it can be a lot more challenging because there’s more to it.”

“Working with the four organisations was challenging, but was also absolutely fine — it made it important to establish a focused point of contact. It was important to get as much information from the client as possible — that comes from face-to-face meetings and getting everybody on the project to have some buy-in.”

“It was really positive working on a project of this size. Helping to evolve the project was good experience. It’s exercised everyone’s brain — you need to think about things slightly differently. It was a longer project so there was learning from that — you have to keep the motivation up and the focus.”

“We’re looking forward to the next step and the evolution of the project, because no site stands still. The site’s creation is just the beginning. You need to then take it and learn from it to see how people use it. If you have something solid to build upon, you can take the site wherever it needs to go.”

“We really enjoyed the project from start to finish, it’s been great — we’d love to do more of them. It was the right sort of project for us and it was really rewarding.”

“As a student I always look for discounts and ticket offers because it makes a real difference. Lots of other venues in Edinburgh do really good discounts too, like the Festival Theatre and the Cameo, but with Culture Juice it’s good that it brings the different venues online in one place.”

“If I’m looking for something to do that night or a couple of days ahead, I’ll always look online to see what discounts there are, and use Facebook and Twitter to share events and see what other people are doing.”

“The quality of the venues on Culture Juice is really good — I’ve used it for Filmhouse tickets. It’s especially good as I’d always rather go to an independent cinema like the Filmhouse than one of the chain venues, even though they offer good discounts. As a student, it’s good to feel part of that cultural community.”

“It’s good too for trying things out — I don’t know much about classical music, but if a ticket is £5 or £10 then it’s definitely worth taking the risk on trying something new.”

“There are so many more venues in Edinburgh which would benefit from doing something like this — it’s really impressive to get all the offers in one place.”

National Galleries of Scotland

Arthunter App



“We were trying to find a digital device that would pull everything together and encourage people to go from one gallery to the other”

Tessa Quinn

The National Galleries of Scotland have developed Arthunter, a multi-platform app, with their technology partner, Kotikan.

The free app can be downloaded by visitors to the three NGS sites in Edinburgh as well as partner galleries and museums across Scotland. Visitors key in codes that are placed next to artworks to unlock further content online.

Arthunter’s development helped to push through last year’s change of policy at NGS allowing visitors to use mobile devices in the galleries. It is the fourth app that has been developed by the organisation, and is part of its wider digital engagement programme supported by its digital department.

The galleries had already developed a working relationship with Kotikan, an app development company based in Edinburgh, through its previous projects. They began the Digital R&D project with an ideas session involving staff from both organisations.

“We’ve always been active in the digital field – every year there’s a digital project of some sort, for example redeveloping the website or the touch screens at the Scottish National Portrait Gallery,” says Tessa Quinn, Head of Digital Media at the galleries.

“Our previous apps put our toe in the water to see what the demand was, and what the difference was working in the mobile field.”

“The ideas session with Kotikan was our starting point — we looked at all the projects the galleries had coming up, and thought of ideas that would suit. We were working with partners across Scotland, so we wanted to develop a digital interface that suited that.”

Quinn and her team went into the session with an open mind as to what might come out of it.

“We didn’t go into the ideas session with a firm agenda. We wanted to make sure it was relevant to the work we were doing and the work that was going on in the galleries. So the idea that came out was that we wanted to do something that was about people collecting artwork and unlocking extra content.”

After the initial idea was settled upon, the project was divided into three distinct areas: content, technical development and organisational development. NGS worked with Kotikan on the technical development, but undertook the other areas alone. The most significant challenge the NGS faced was developing the content of the app, and working out how that would happen.

The digital team had initially hoped that the content would be provided from across the organisation, but although NGS staff reacted positively to the idea of the app, it was difficult to get staff from different departments to free up the time to help them to develop it.

“People found it hard to understand what was required to contribute because it was quite hard to visualise what the app was, so we ended up producing a lot of the content ourselves within the digital team.”

We also tried to reuse existing content, but because a mobile is very different from a large touch screen or a website, it had to be amended, crafted or edited. Nothing was just slapped in and a lot of care had to be taken over the content to make sure it was appropriate to the interface and the whole concept.”

Finding the right technology partner was key to the success of the project, and that relationship was vital for its development. Working with Kotikan felt like a genuine partnership, and their close proximity in Edinburgh was seen as a huge benefit.

“Often you go for that customer/supplier model – it’s a bit more dictatorial, and I don’t know that you always get the best outcome. Kotikan had a lot more ownership of this project because it was gone into in that kind of partnership way.”

“As with any partnership you have to be really clear on roles and responsibilities. The cost scoping and the project plan are vital. It doesn’t mean you can’t deviate from the project plan but at least you know the impact of what that deviation means. The technology providers are commercial companies. They have to make money, from other customers as well. You can’t treat them just as your partner – you have to respect them for what they are.”

“When we first started working with them on the first app four years ago, they were a small company. They’re now larger and so they have competing priorities, but they always made sure that ArtHunter was something they prioritised.”



The development of ArtHunter was done specifically with two projects in mind: Artists Rooms, a collection of contemporary art acquired by the National Galleries of Scotland and Tate, and Generation, a vast national project celebrating the past 25 years of visual art in Scotland, involving galleries and exhibitions across the country.

Between June and October 2014, while Generation takes place at venues across Scotland, the NGS will devote ArtHunter entirely to the project, temporarily removing other content and allowing the organisation to assess the app so far.

“ArtHunter was developed with Generation in mind – we were trying to find a digital device that would pull everything together and encourage people to go from one gallery to the other,” says Quinn. “That’s a principle that’s still very much behind ArtHunter.”

“Generation is also the time we’re going to review some of the functionality of ArtHunter and sort out those issues. We’re thinking of last year as phase one of the ArtHunter and this as phase two.”

Feedback has been generally positive from users, some of whom have reported that it has changed their behaviour in the gallery, particularly as the galleries had previously banned mobile phone.

“Somebody said to us that they felt it gave them permission not to look at every artwork – that they could just dip in and dip out,” says Quinn.

“There is an expectation that people have a multiplicity of different experiences. It’s finding a way that the digital world doesn’t become too intrusive, and there’s still a balance with the other experiences that people want in an art gallery.”

The NGS has used a variety of information types on the app, including audio guides, written information and links to other artworks.

“We have an expectation from audiences to provide interpretation, education or insight or expertise through any channels that they may wish. Bearing in mind how many people use digital devices for their main means of communication and information, I think galleries have to expect that that’s how people are consuming now.”

“People respond to artworks in different ways. The audio has been very effective, but maybe that’s no surprise as audio guides have been used in galleries for a long time.”

“The app also reflects a move towards the organisation becoming more digital as a whole, with attempts to integrate digital working more fully into other parts of the NGS,” says Quinn.

“We’re becoming much more digital as an organisation and are currently rolling out our digital engagement strategy,” says Quinn.

“The first line of that will be working collaboratively across organisations. It means we’re moving away from the model of having a digital department that did everything to do with digital channels to broadening that out. Our whole organisation will be participating and collaborating to produce digital output.”

Challenges the partners faced included the limited WI-FI within the galleries, and broader issues with marketing the app.

The project team set aside £2000 to market the technology, which, Quinn says, fell short of what was needed, and was one of the main learning outcomes.

“I would advise people to really think about how you’re going to tell people about the digital product – how are you going to market it, how are you going to distribute it? There’s a lot of great digital products out there that have no audience because people don’t know about them, and that’s really critical.”

“You also have to sustain your digital product – it’s not like a print publication, you don’t put it to one side. Digital developments do not stop. Once you’ve built it you have to keep looking after it.”

Quinn and her team have already used some of the information learnt from the project in developing another app that supports their latest exhibition, Titian and the Golden Age of Venetian Art.

“ArtHunter was developed with Generation in mind – we were trying to find a digital device that would pull everything together and encourage people to go from one gallery to the other,” says Quinn.

“That’s a principle that’s still very much behind ArtHunter.”

Overall, the project was a success, Quinn says, and part of that was due to taking some risks to innovate. Risk-taking is something she says the organisation would benefit from doing again.

“I was asked, ‘Did you create something better because you tried to innovate? I think we did. It wasn’t easier, but I think ultimately it was probably more valuable.’”

“The R&D project has been hugely beneficial. The fact that we’ve got ArtHunter, which is an app we’re really proud of, is amazing. We found the whole thing very useful. It’s brought us out of our own bubble and made us see a little bit more what’s happening out there.”



"For every exhibition, Shona Cameron [from the digital team] speaks to the curators and talks about the themes and ideas that might work for ArtHunter, and we identify what might be appropriate."

"For Bourgeois, we felt the work Cell XIV (Portrait) would work really well for the theme that would be developed for the app around the colour red, because the colour is such a major symbolic part of Bourgeois' work."

"We chose to do an audio piece, and we were able to point to other works in the exhibition where the colour red is a crucial component. We were able to pick a theme that's very personal to Bourgeois' work and that resonates not just with that work but with other works in the show."

"Our visitors want different ways of interpreting the work: some people like to read something on a wall, some people just want to see it for its own sake and some people want to go through their phone and see what they can discover."

Having that additional level of content is really important, and it's something we're speaking about in very great detail for Generation.

"It's been good with ArtHunter to think about different kinds of interpretation — anything from a piece of audio or video or a related image. It could be another piece of text or literature, a biography of a third person who's referred to by the artist. There are so many ways it can give that type of deeper engagement with the work — that's a really important and accessible way in for our visitors."

"It can change the way people interact with art in a gallery. We've only had a policy in the national galleries relatively recently where people can take photographs. But rather than just seeing an exhibition

through the lens of your iPad, the way ArtHunter really works is to take you back to the work. You're there with the object and it's making you look at it again."

"I find working with Tessa and her team really fruitful. There's a big desire for different kinds of content, and ArtHunter allows us to present a lot of content without cluttering up the space where the artwork is shown."

"As a curator, allowing people to see the art, allowing it to breathe in its own space and not being kind of cluttered by interpretative panels is really important. It's a secondary benefit of having those things on a mobile device. You can do all those different things with it, and it's discreet. You can take as much or as little as you want from it."

"If I'm going to an exhibition, I'll usually look at the gallery's website first to see if there's anything in particular I want to see. And when I'm there I find I'm endlessly picking up bits of paper if I think they'll provide me with more information, and especially stuff that I can take home with me. That way I can go home and absorb it in the comfort of my own home."

"For the Louise Bourgeois exhibition, the ArtHunter app was really good — having the audio was especially great. It would be good to have more of the works in the show on the app, and it would be nice to delve even deeper."

"Being allowed to use your mobile probably encourages a wider audience to a gallery — I know I've snuck my phone in to galleries to take a quick snap and do further research on it when I get home. If you're new to the whole gallery experience and are maybe of a younger generation, then it's second nature using your mobile, even in a gallery."

"Overall I've found it a really useful tool — it feels like it's all about inclusion, and that's all-important."



National Piping Centre

E-Learning Hub



“We needed to look at new ways to grow our tuition business without having to hire new premises. Now we’re teaching people right across the globe”

John Mulhearn

The National Piping Centre has developed an e-Learning hub as an extension of its existing website with its technology partner, Yellow Brick House, to grow the centre’s tuition business without having to expand its premises.

Piping tutors at the centre in Glasgow can now deliver live webinars to students around the world, which are then stored and archived on the centre’s website as recorded lessons.

Through the relationship that the piping centre has developed with the technology partner during the Digital R&D project, it is now exploring further digital projects and ideas, including the live streaming of events.

“We were already dipping our toe into online tuition via Skype, and we continue to do that,” says John Mulhearn, the centre’s e-learning co-ordinator and one of its piping instructors. “The way we do that is much the same as we would do person-to-person here at the centre, but via webcam.”

“The Skype teaching was delivered one-to-one, whereas the idea behind this was that we would be able to teach groups across the world, all at one time. That was the premise for the whole project, and it was a way to grow our whole tuition business.”

The centre has been outgrowing its building in Glasgow for some time, Mulhearn says, and exploring new digital avenues allowed them to consider how they might expand their reach and their business without expanding the premises, in a cost-effective way. Tutors can now give a lesson to up to 99 students at any one time, who can be anywhere in the world.

“We needed to look at new ways to grow our tuition business without having to hire new premises. Now we’re teaching people right across the globe — from the West Coast of the United States to Malaysia, Australia and New Zealand.”

The e-Learning hub has been received positively by tutors and existing students, Mulhearn says, but the centre now has the capacity to teach far more people than are currently signing up to the online lessons. Now they face the challenge of marketing their product more effectively to take advantage of the new opportunity.

“The overall idea has been very well received through our already existing market. A lot of our subscribers are people we already had a relationship with in one form or another, and it was positively taken up by them. We’ve tried to push it more through social media and I think there’s a lot of scope for developing that side of how we’re promoting it.”

The centre has learned through the experience about what aspects of the hub work, and what could be improved. The system has faced some technical challenges, and the experience of those could be used to change the system for the better, Mulhearn believes.

“I can see where it’s perhaps not as user-friendly as I would like it to be if I were using it myself. There are ongoing technical glitches with live webinars that become quite a nuisance to have to rectify.”

The success of the lessons is reliant on the technology working at both ends during a live lesson, and this has also caused some difficulties.

“You might have a break in the internet connection or there might be problems with audio or just be glitches within the system, which means that we have to re-record the whole thing,” Mulhearn explains.

“So instead of taking one hour, it takes two or maybe more. It could maybe be more efficiently done if we were not to do it in a live format.”

It is something the centre might look to do differently if they were starting the project again, Mulhearn says, and are currently looking to explore as the e-Learning hub progresses.

“With hindsight I’d perhaps look at a different format to deliver the lessons. There are small technical things to do with the software we’re using, and perhaps a slightly different archiving system on the website, but these are things that we’re looking to develop.”

The online teaching also required teaching staff to adapt not only to new technology, but to a change in how they delivered lessons. They brought in Fergus Muirhead, the piper and broadcaster, who carried out a training session for teaching staff on how to present themselves on camera, and some of the challenges they might face.

“It has been a bit of a learning curve for everyone,” Mulhearn says. “We’re all very experienced in one-to-one and group tuition, but to talk to camera is a very different experience. Some people are more comfortable doing it than others but I think over time everyone has got more comfortable with it.”

The e-Learning project is part of a gradual shift towards digital online tuition and digital content in the organisation as a whole, and has fitted into the wider activities of the centre. As well as the new facility for online tuition, the organisation has created a media archive, through which they are able to store historical and educational documents. They are also developing an audio archive of old recordings.

“We’ve got a big collection of old 78s and reel-to-reel cassette tapes, so we’re digitising them and making them available through the archives. It’s allowed us to expand and make our content more available. We’re still at the early stages of really growing that market. It’s a time-consuming thing to go through, digitising old analogue recordings, but it’s something that we will continue to grow over time.”



One of the key successes of the project was the working relationship with the technology partner, Yellow Brick House, a collaborative digital media network based in Glasgow. With them, the piping centre has since developed ideas for further related digital projects, and the relationship was crucial to that happening, Mulhearn explains.

“They’re an interesting little co-operative – they’ve got expertise in lots of different areas, and they were very good to work with. They were very understanding of what we were doing. It was a very new venture for them at the same time but they’ve delivered everything that we wanted.”

“There are likely to be lots of different companies out there that can fulfil what you need, but you need to work with individuals that you feel happy working with and that you can build a future relationship with personally. And perhaps further on from that, people who you can perhaps see avenues for development further down the line.”

Yellow Brick House faced their own difficulties during the project, including losing their lead developer, but this was never an issue for the relationship with the piping centre.

“They managed to resolve their own issues without bringing us into it. Through our relationship with them on the e-Learning website, we’ve developed a further relationship with one of their team members and another one of his companies. That’s enabled us to get more into doing live streamed events, so there’s been an off-shoot of that initial relationship.”

The live streaming of events is a new venture for the piping centre, and the organisation is at the early stages of exploring how they will develop it and potentially use it as a source of revenue. They have already streamed live events that have taken place at the piping centre and further afield.

“We’d streamed various events from our Piping Live! event in August and also the Glendfiddich Piping Championship in Blair Atholl at the end of October. That was a huge success – we had upwards of 3,000 people watching online.”

The piping centre had initially provided the live streaming free of charge, but in February 2014 trialed a paid-for model for the Metro Cup Piping Competition in Newark, New Jersey.

“We’ve been experimenting with different payment models, and Newark was our first attempt at putting a paywall up and seeing how it would go. I don’t think it quite met our expectations, which were perhaps slightly unrealistic, but we’re going to experiment with a few different avenues for revenue growth from these.”

Through the initial partnership, piping centre staff have received training from the technology partner to allow them to develop the capability to do this alone. While previous events have been streamed under the guidance of Yellow Brick House, they are now preparing to conduct their first live streaming without any external support.

“We’re at the stage now where we’re about to take a step up to do it ourselves – we’re just about ready to go it alone.”

Overall, Mulhearn says, the Digital R&D project has allowed the piping centre to start a digital journey via its e-Learning hub that has the potential to develop and expand.

“It’s allowed us to explore some new opportunities and ways of growing our own business.”

“The main difference with the webinar is that you’re not actually sitting talking to somebody – you’re talking to a camera and that took a wee bit of getting used to. But once you get your head around that, it’s fine. I just look at it as being a lesson that’s just a one-way street rather than two.”

“I’ve never been the best at public speaking, and so coming to a situation where you’ve got a camera and a microphone, I found a wee bit daunting. But once I realised that it’s no different from just speaking to someone in person it was fine. The training on presenting ourselves really helped. I dare say there’s still things I’m doing wrong, but it was useful.”

“There have been hitches – luckily for me not too many – but there can be. Sometimes there’s been a problem with the internet, or one time I couldn’t get logged in to the Adobe Connect system because they were doing maintenance on the site. The odd time there’s been a bit of human error involved – but we’ve worked round these things.”

“It would be good if we had more people in a live lesson so there was more of a dialogue. You’re having to think about what is it that people might do wrong and things like that, so it might be better if people were able to ask more questions. If we could do something to try to make it more of an interactive thing, that would be good.”

“I’m very happy with the change and I’ve gotten used to it now – it’s just like any other lesson. I know what time it is, what I’ve got to do – I just make my way to the classroom, switch on and there you go.”

“On this project we felt completely involved in everything from day one, and that’s part of why the relationship was so good – it was a partnership approach and we worked together. It felt very collaborative and the piping centre were very open to ideas. They had a concept but they let us lead on how it could be developed.”

“R&D is really important to Yellow Brick House. We make a real point of having ‘side projects’ – stuff that we’re interested in other than paid work for clients. It keeps us exposed to other things and alive to what’s going on culturally. Some of our best creative ideas come from that.”

“The working relationship with the piping centre was a real positive – it was a fascinating project to work on. It wasn’t lucrative, but it was really successful in exposing us to interesting stuff, and doing things that we hadn’t done before. We ended up live streaming an event from a castle in the middle of the Highlands that didn’t even have a 3G connection, and it was great to pull that off.”

“We had a few headaches around the technology, and a few problems when the site first launched but that’s nothing out of the ordinary on a project like this. It’s opened up things for us – we learnt a lot and we’d certainly do something similar again.”

“The whole Digital R&D project and the way Nesta approached it was good – it made projects happen that just would not have happened otherwise. Even if you took away the funding, the process of pairing the arts and digital organisations up with an open mind was interesting and showed the potential of what could happen.”

“We have a lot to offer each other – it’s a uniquely good fit and should be supported and encouraged.”



National Theatre of Scotland

Digital Access Project



“What Nesta has allowed us is the space and time to think that this could actually work, so we’re excited now about taking it on to the next stage”

Ellie Rothnie

The National Theatre of Scotland has developed a digital access project with its creative partner, Flip, and technology partner, We are Everyone. The project aimed to make all the company’s performances accessible to people with visual and hearing impairments by delivering captioning and audio description directly to audience members’ smartphones.

The project forms part of a wider commitment by the NTS to research and development, and also to using digital technology to make its productions as accessible as possible.

The NTS was the first national theatre company in the world to operate without a dedicated theatre space. Instead, it works as a “theatre without walls”, and its productions are performed in spaces across Scotland, from traditional theatres to less conventional spaces including village halls, pubs, quarries, ferries and forests.

NTS already offered captioning and audio description services, but because of financial constraints, these were usually available at only one performance in a theatre run of up to three weeks.

“We wanted to see whether technology would allow us to develop a platform that could deliver those services to smartphones – and that would allow people with visual impairments or who were hard of hearing to go to any performance they liked, at any location, and access the same service,” says Ellie Rothnie, development director at NTS.

“We have a mandate as a national theatre company to lead the way in accessibility, making sure we’re using all the tools at our disposal to do that.”

NTS had already been working with Flip, an organisation supporting disability equality in the arts, on a three-year development process, looking at all aspects of the company's disability equality and access. A good relationship between the two organisations was already well established, and Flip was able to provide access to the focus groups that were used throughout the R&D project.

“There was no question of not involving Flip in the project,” Rothnie says.

“They seemed to be a natural fit, and they've been really invaluable in terms of helping to connect us to these groups, making sure we understand how to make them feel comfortable.”

Before starting the Digital R&D project, NTS looked at other organisations internationally to see what similar digital projects were already under way, and might offer some insight.

Marianne Maxwell, NTS audience development manager, found a commercial company in Canberra, Australia, that was developing automated captioning, although not to mobile devices, and engaged them as part of the research process.

“A range of NTS staff members were involved in the initial discussions with the technology partner. The idea was quite broad. We knew roughly how it would be delivered, through a device, but whether it would be web-based or an app or any of those things, those are things that came out of the discussions.”

NTS invited members of a deaf theatre club, and people who used audio description, to focus groups based around the NTS production of Black Watch.

The focus groups watched the production, accessing audio descriptions or captions in the way they normally would, and then gave feedback about the idea of accessing the facility using a smartphone.

“We tried to figure out if even the idea would be attractive. Initial reactions were very positive, although there were lots of reservations about how would it work. They wondered – would it be OK to take a mobile phone into a theatre, as that's a great taboo. But in principle it was something that these stakeholder groups wanted us to explore.”

We are Everyone worked on an initial interface to deliver the audio descriptions and captioning, and the NTS continued to work with the focus groups. They were then invited back to watch a performance of In Time O' Strife in a community hall in Fife. They first watched the performance as they would normally, and were invited back five days later to test the new technology.

This formed an important part of the research, Rothnie says, as their feedback provided the project with proof of concept. “We wanted to test the technology in situ, to see how it worked, did people like it, how could we improve it – was it any good.”

“We needed to know whether audience members, and also the cast, would be comfortable with people using this technology in a theatre. Even if we were to absolutely crack the technology, we needed to know – are people going to feel comfortable taking out a mobile phone in the middle of the theatre? If someone feels intimidated or is being tutted at then that's not going to be a good experience for them.”

The testing day was one of the project's biggest challenges, as the technology failed to work, with only one person receiving the service to their smartphone. The day did, however, provide NTS with information about how the project might go forward, and the reaction from the focus groups was positive.

“We found that as long as people understood why someone had their mobile phone out, no one had an issue about it,” Rothnie says. *“We know the user groups are interested in seeing this working and developed further. We know we can do something about addressing it culturally, about bringing these devices into theatres. The key now is absolutely cracking how we deliver it.”*

The initial device developed by We are Everyone required someone to be at the performance to trigger each line of caption or audio description. NTS knows this must be changed to an automated platform, in line with the initial objectives.

“We need to find some way of using what Everyone has built – a manually-triggered captioning device – and turning it into something that runs off the triggers the company already has. If we can do that then we're confident that we can bring something that really fulfils the ambition of the brief that we set up.”

“We know it can be done – they developed a platform that could deliver what we needed it to, so the rest is fine tuning. What Nesta has allowed us is the space and time to think that this could actually work, so we’re excited now about taking it on to the next stage.”

One of the main issues the project addressed was the taboo of bringing a mobile phone into a theatre.

“Our organisation was split over it,” Rothnie says. “There were people who just said, ‘Oh no, it’s just absolutely wrong’, and as a result were interested in getting on board the journey, because they wanted to see if it could work. It goes against everything they expected.”

“Everyone was interested in the journey and the exploration. Whether we can convince people that it’s an OK thing to do further down the line, that’s still got to be explored.”

“We’re still at the very early stages but we hope in time if it works and if the audience response continues to be positive, this is something that could transform the experience of theatre.”

The project forms part of a wider move to use digital technology as a way of accessing and engaging with theatre audiences. This can be seen in projects such as National Theatre Live, in which the National Theatre in London broadcasts live performances in cinemas around the country.

“People are seeing theatre less and less as something standalone that they go and consume. They want to see behind the scenes, they want to watch the trailer, they want to blog about it and put something up on social media.

“We’ve got to respond to that by not only creating the content that you see on stage, but also to give people the rest of what they would like as well, which is the digital content. It’s not all just about beaming theatre into different places, but it’s about the surrounding experience and how you enhance that by embracing what’s happening in the digital world.”

The project forms part of the wider use of digital technology in the NTS, including social networking and social media calls for performances. NTS is also bringing back Five Minute Theatre, a 24-hour live screening project.

“That would have been unthinkable a number of years back. The idea that a national theatre company could curate an entire day of theatre that would be available to audiences simultaneously all over the world is quite exciting.”

In 2013 NTS also worked with the company Quartic Llama to develop an app based around its show Let the Right One In, and would like to do something similar again. The app created a walking tour of Dundee that related to the performance. “You didn’t have to be at the performance but you were getting a flavour of it. The result was great, we got what we hoped and they enjoyed the process.

“Some of our shows are the most technically advanced – something like Black Watch, which is now five or more years old, is still incredibly technically advanced. There are some areas of our work in which we have embraced, almost led on, digital advancements, but probably others where we’re still coming up to speed.”

Some of the main challenges included the working relationship with the technology partner, and how the product would develop after the project finished.

“Perhaps we were shortsighted in not realising that whatever our digital partner came up with, our technical team would have to deliver or be involved with. Think about who are all the stakeholders and at which point they need to be involved. It’s going to impact on your wider organisation – think about life afterwards. Who’s going to deliver this – make sure you’ve got their buy-in and understanding at an early stage.”

The project was valuable for the NTS not just in terms of the technology it started to develop, but also its wider implications. “R&D is absolutely in our DNA. Every piece of theatre we do, every story we tell, goes through a research stage and a development stage. The whole concept of R&D is how we make work.

“This project is a gift. There’s absolutely no way we would’ve had the time, space and funding to take a holistic look at something we’ve always been committed to. Something that can give you the space to step back and achieve something that’s perhaps greater than the sum of its parts has been amazing.”



“This is the first digital project we’ve been directly involved in. What was exciting about the Nesta project was thinking about using new technology to make performance accessible in a way that’s very different from how it’s traditionally been done.”

“The current system of captioning and audio description is quite rigid, and often the technology is far from state of the art – it’s clunky and it causes problems.”

“When it comes to disability equality and access, there’s not that many people embracing new technology to solve problems, though it’s increasing. Digital technology certainly has the potential to make the arts more accessible – it’s increasingly part of our lives.”

“A lot of people with access requirements might be older, and so using certain mobile technology might not suit them, but that will change as older people in the future will have grown up using those technologies.”

“We’re not very far from technology creating quite a step change around access. Things like Google Glass will revolutionise captioning, text and theatre so there’s lots of exciting things coming, and it’s great that the NTS are trying to move with that process and think creatively around it.”

“The relationships built with the participant groups during the project were very positive, there was a lot of trust built and we’re able to take that forward.”

“There was also a big impact on NTS as an organisation. We tried to embrace the whole company and explain to everybody what was happening – I went to the cast one day when they were rehearsing. There was buy-in across the whole organisation.”

“Flip’s working relationship with NTS has been solidified, and we’re building trust with members of the company, so with the Nesta project and also the wider work we’re doing, we’re able to encourage people to think differently and try different things in a supportive way.”

“On the whole it makes a massive difference because you feel like a part of the audience... you can laugh when other people laugh.”

“The thing that shouldn’t be overlooked when it comes to accessibility and audio description is that it’s a holistic thing. It’s the whole process, it’s not just sitting there with headphones on. It’s also about arriving at the venue... ”

“I liked it and have no problem holding it as I use the Kindle a lot. You quickly pick up when there was a lot of speech coming up and you did not need to look up as it was the same person talking. I thought it was brilliant.”



Publishing Scotland

Bookspotting App



“It’s important that we’re not just seen as a print industry, but that we’re seen as really embracing digital opportunities”

Marion Sinclair

Publishing Scotland has developed an app with its creative partner, Saraband Books, and its technology partner, Spot Specific. The Bookspotting app uses GPS technology to provide information about Scottish books and authors linked to places that are close to the user’s location.

Following on from the R&D project, Publishing Scotland is planning further digital work including an overhaul of its website, and digital skills workshops with its member publishers.

Embracing new developments in technology is vital for the publishing industry, says Marion Sinclair, chief executive of Publishing Scotland, whose Digital R&D project is part of a broader move towards using more digital ways of reaching readers.

“It’s no secret that the publishing industry is an industry in transition,” Sinclair says.

“Most of our publishers have engaged with digital in some way – when we surveyed them, 80% said they had produced ebooks. Our role is supporting publishers in whatever endeavour they choose to go into, and one of the main strands is digital work.”

Publishing Scotland supports its member publishers in their digital work by providing workshops and a training programme with a strong digital element. It was a logical step for the organisation to create its own platform that reflected the shift towards digital technologies, while also providing a tool to promote Scottish books.

“At our latest conference, digital marketing was one of our major strands,” says Sinclair.

“Although most of our publishers are now engaged in digital publishing, getting your books discovered by readers is one of the major issues, and Bookspotting fits very neatly into that. We thought there was a good fit in what we were supporting our publishers and funding them to do, and it gave us an opportunity to do something ourselves as an arts organisation.”

The organisation had previously worked with VisitScotland, advising the national tourist body on what literature to use to promote Scotland's main tourist locations.

This sparked the idea that Publishing Scotland worked on with Sara Hunt on how those ideas might be developed further into a geo-location app.

“It got us thinking what books would work in terms of settings, themes and characters, and the idea of literary tours. We thought of putting those things together with the digital technology side of it and the location, and we came up with Bookspotting.”

“The app locates books and themes and characters for settings around Scotland. So when you're out and about, through GPS technology it will tell you what books are set near you, what authors were born near you, or if there's a literary connection. There are a number of tours and themes, and it offers a slightly more whimsical path or signposting into the world of Scottish books.”

Developing digital projects that complement the print side of the industry is a vital part of the organisation's output, says Sinclair, and she emphasises the need to evolve.

“You have to do things like this. As an organisation it's important for us to move into the digital arena, otherwise your clothes can get stolen by digital media companies that don't have the content or publishing background,” says Sinclair.

“It's really important for publishers to factor those skills into their own companies and embrace digital technology – not to outsource too much of it, but to agree to learn themselves. It's really important that we're not just seen as a print industry, but that we're seen as really embracing digital opportunities, and there are real opportunities in the digital sphere.”

“For example, although the app is very much focused on Scotland, you can download it anywhere in the world. So if you were hoping to make a journey to Scotland, it gives you a set of books to read before you go or after you've been. That kind of marketing and reach would've been really difficult to achieve in the past.”



Sara Hunt had already developed a number of apps, and had worked previously with Alistair McCallum, of the Glasgow-based technology partner Spot Specific, which made the company the obvious choice as the partner for Bookspotting.

Having a tech partner who was not only interested in the content and subject, but could also provide an external perspective for the whole project, helped to provide a valuable balance of input and was key to the project's success, Sinclair says.

"We're very text-focused in publishing. We work very much with a cover image and blurb and text — it's very wordy. You're trying to shrink it down to an app size, really only looking at having small bits of information, and Alistair was really good at getting us to concentrate on the essential."

"Sara and I are both very focused on the book world but are both very fond of our iPhones and apps - we've downloaded a lot of them and have been going to a lot of digital conferences over the years."

"Alistair is very well versed in Scottish culture and is really interested in the content, and that really helped. He gave us a view on how to simplify what we had. He's enthusiastic, and his background gave a really good view as a user. We are so close to the world of books that it's sometimes hard to see what it's like from that fresh reader perspective."

The partners wanted the app to reflect a young, fresh approach to books and reading that might provide an alternative way into literature. This informed the decision to refer to books rather than literature in the app's title, and decisions about its packaging.

"I hope that we're helped by the image and the look and feel of the app, which pays homage to Trainspotting. It's quite an arresting image, and quite appealing."

We're trying not to make it look too 'literature', with dusty tomes, historical references and so on — we're not saying, 'You have to read these because these are the classics.'

"That wasn't the image we wanted — we wanted to make it look fresh, relevant and contemporary. The publishing industry and books have been around for hundreds and hundreds of years, so it's not new. But what's happening at the moment that is really new is bringing it to a new digital platform and a new audience, and we had to reflect that in the look and feel of the app."

Sinclair and her team took information from the 15,000 entries on their existing Scottish books resources website, Books From Scotland, which they set up in 2005. This was then added to using information from their member publishers, to create a bank of data. Sinclair then took on an assistant editor, who worked on the project to

collate the information, from which Spot Specific created a customised database.

The relationship with the tech partner worked well, Sinclair says, but the collating of the information was one of the biggest challenges.

"What made it quite onerous was that we'd a big set of data and a huge amount of records. We had to come up with some parameters as to what books to choose and what kinds of information would work in the app environment. We were then slimming that down and augmenting the data with our own information from publishers and other literary organisations."



The organisation's lack of experience meant that they were perhaps unrealistic about the work involved.

“One thing we didn't appreciate — not being technical — is that there's a big difference between the app and the website. If there's something wrong you can generally go into a website and change it instantly. An app requires an update, which isn't just a question of going in and fixing something. There's a cost involved, there's tech time — you have to be aware that it's a different beast.”

This meant that the original six-month timescale was unrealistic, and this is something the organisation would urge other organisations to consider.

“Six months goes by in a flash. The rest of the project went really well, and our aim at the beginning to make it fresh, relevant and accessible remained consistent and we managed to do that. Whatever project it is, it's always going to take almost twice the amount of time that you think, so the time aspect is crucial.”

As the project developed, it also became a challenge to avoid becoming overly ambitious.

“If we had advice to give to others it would be to say — it's going to be enough to get a really accessible GPS app up in six months. We were slightly distracted by all the shiny features, and that sent us scurrying off to things that we just didn't have time to do.”

Working on the app has informed Publishing Scotland's future approach to work, and there are digital projects that Sinclair is keen to get under way.

“The app has set us on a path. The Books from Scotland website is very much in need of a refresh. One of the outputs from the app will be to inform what we do with the website next.”

“In terms of being a digital organisation, we're there to support the digital efforts of our publishers, and we want to do that and learn a bit ourselves. We're just about to embark on a digital skills project with publishers, which will be about workshops and mentoring, and we'll have some stuff about apps in there as well.”

Feedback from the app has been generally positive, although there were some initial problems with Android devices. The app was named in The Guardian as one of the 20 best iPhone and iPad apps during the week it was launched, and as one of the five top book apps in The List magazine.

Book apps offer a great opportunity to the Scottish publishing industry, and many more could be developed, Sinclair says.

“It's a real opportunity — tourists come to Scotland for its heritage, not only its built heritage but its felt heritage, and its landscape, characters and history, and something that brings that alive in the digital sphere, tied in with books, would be good.”

“We’re very open to experimenting with digital at Saraband. We’ve been aware of the progress towards ebooks and all forms of digital content for a long time and have tried to keep at the front of it.”

“The whole idea with Bookspotting is for people to discover books they’re not browsing in a bookshop or seeing in an online retailer. People don’t really see books other than those listed at the top of the charts on the internet.”

“It was a really big leap from our past projects but we learned a lot from it. I’m really pleased with what happened — the people who have downloaded it are all reporting how much they’re enjoying it and having fun with it.”

“If you’re a publisher, you have to be aware that people are finding their reading through digital channels and you have to be able to get your book more visible in that setting. It doesn’t matter whether someone wants to read a physical book or an ebook — they’ve got to know that book exists, and Bookspotting is about discoverability.”

“It used to be much easier — now it’s much harder to get people’s attention. We’re about to revamp our website and social media because you’ve got to keep doing it, keep changing it because people’s attention span is really short.”

Back in the day the way to get noticed was to spend £20,000 to get your book on the front table in Waterstones. Now it’s more democratic and more creative, but you have to put in a lot of work.

“I would totally encourage people to get involved in digital solutions to things — it’s essential. You can’t be a Luddite — the world’s going to change whether you go with it or not. It’s essential to go for it but you still need to know your business. What should control it is your imagination.”

“The app is good — its main strength is the location functionality, which is a big part of mobile these days, and they’ve identified that that’s a unique aspect that an app can haven’t hat a website or a book can’t.”

“The walks are good and the fact it’s all integrated with location is to me the thing that makes it valuable and different. The content on its own is useful, having so many books and authors in one database, but it still wouldn’t make me go “wow” without that location aspect.”

“I like that there are literary walks that you can do, and also the independent bookshops angle, where it will show you your nearest independent bookshop — I think that’s really great.”

“There’s not just one place that people go for their book recommendations, and apps are another place to go to find books.”



Scottish Documentary Institute

Portable Fundraiser



“It enabled us to have more than 300 screenings of our film around the world in more than 45 countries. Half of those screenings were on one day alone”

Ben Kempas

The Scottish Documentary Institute (SDI) developed the Portable Fundraiser with its technology partner, Distrify. The fundraiser is a crowdfunding device that is embeddable anywhere on the internet as part of a video player.

It allows people to pay to watch the institute's films, but also has a number of other functions, enabling community screenings worldwide, and allowing people to “gift” films to others. Since the Digital R&D project ended, the SDI has continued to develop the fundraiser for new projects, and the device is now being used by other organisations in the film industry.

“Filmmakers these days rely heavily on video players that get embedded on the web, and they also rely heavily on fundraising,” says Ben Kempas, SDI's producer of marketing and distribution.

“But no one has ever combined those two functions, and taken the opportunity to fund a project wherever people come across it on the internet.”

The Portable Fundraiser was used to crowdfund for *I am Breathing*, the SDI's award-winning documentary by Emma Davie and Morag McKinnon, which documents the last months of Neil Platt, who died of Motor Neurone Disease (MND). Initially, the film's crowdfunding was done in more traditional ways.

Whenever someone saw the trailer online, they could then buy the film, either as a DVD or to watch online immediately.

“We wanted to take that further,” Kempas says. “Wherever somebody came across the film, we wanted to have the opportunity to raise funds right there in the form of donations, community screenings or other ways of crowdfunding.”

For *I am Breathing*, this was used successfully on its Global Screening Day on June 21, 2013, which was selected to coincide with Global Awareness Day of MND.

Screenings of the film were organised across the world — the SDI used the extra publicity surrounding the awareness day to market and publicise the film, and used the Portable Fundraiser to organise the community screenings.

It calculated what the host of each screening should pay, based on information such as where the screening would be held, how many people were likely to attend and if the audience would be paying.

“Anybody who’s ever released a film via these so-called community screenings knows that it’s a lot of work in terms of finding the people to hold them, getting them organised, getting them the materials they need and collecting payment from them,” says Kempas.

“That’s where the Portable Fundraiser came in really useful — it took over a lot of that extra work. All of that enabled us to have more than 300 screenings of the film around the world in more than 45 countries. Half of those screenings were on that single day alone.”

The community screenings enabled the film to reach a much broader range of people, rather than the more selective audience who may have otherwise seen the documentary at film festivals.

“When you think of the awareness potential — both to get the film out and to let people know about this terminal, devastating disease — we had to reach people on a broader scale, and that also helped tremendously in terms of media coverage. The idea that you’d have so many community screenings around that one day helped getting the attention of mainstream press. That word-of-mouth effect is incredibly precious. You couldn’t achieve it through traditional film marketing.”

The project forms part of the wider use of digital technology in the NTS, including social networking and social media calls for performances. NTS is also bringing back Five Minute Theatre, a 24-hour live screening project.

“That would have been unthinkable a number of years back. The idea that a national theatre company could curate an entire day of theatre that would be available to audiences simultaneously all over the world is quite exciting.”

In 2013 NTS also worked with the company Quartic Llama to develop an app based around its show *Let the Right One In*, and would like to do something similar again. The app created a walking tour of Dundee that related to the performance. *“You didn’t have to be at the performance but you were getting a flavour of it. The result was great, we got what we hoped and they enjoyed the process.”*

*“Some of our shows are the most technically advanced — something like *Black Watch*, which is now five or more years old, is still incredibly technically advanced. There are some areas of our work in which we have embraced, almost led on, digital advancements, but probably others where we’re still coming up to speed.”*

Some of the main challenges included the working relationship with the technology partner, and how the product would develop after the project finished.

“Perhaps we were shortsighted in not realising that whatever our digital partner came up with, our technical team would have to deliver or be involved with. Think about who are all the stakeholders and at which point they need to be involved. It’s going to impact on your wider organisation — think about life afterwards. Who’s going to deliver this — make sure you’ve got their buy-in and understanding at an early stage.”

The project was valuable for the NTS not just in terms of the technology it started to develop, but also its wider implications. “R&D is absolutely in our DNA. Every piece of theatre we do, every story we tell, goes through a research stage and a development stage. The whole concept of R&D is how we make work.

“This project is a gift. There’s absolutely no way we would’ve had the time, space and funding to take a holistic look at something we’ve always been committed to. Something that can give you the space to step back and achieve something that’s perhaps greater than the sum of its parts has been amazing.”



The SDI also worked with other partners, including the D-Word, an online community of documentary professionals, who helped to raise awareness and distribute the film globally, resulting in screenings as far afield as Rwanda and the Philippines. For *I am Breathing*, the SDI also worked with the Motor Neurone Disease Association (MNDA). This resulted in an exchange of resources that added strength to the film's distribution.

“The MNDA was instrumental in getting a lot of screenings in the UK. They are organised in regional branches – that’s the sort of existing structure you can utilise. They encouraged all their members to hold screenings as well, and that’s the reason we had many more screenings of *I am Breathing* in the UK than elsewhere. The MNDA also donated advertising space in the Tube in London and across Network Rail in England and Wales. So all of a sudden, for this small documentary film we had these huge billboards all over the London Underground.”

As well as allowing users to buy the film or organise and pay for a community screening, the Portable Fundraiser also has a facility with which people can add a top-up donation.

A simple “slider” device allows people to choose an amount to donate, and they are given information on what their money may go towards. This may be helping to distribute the film, or specific funding programmes for the MNDA.

“It helps us to get the film out further, and also helps the MNDA do their important work around motor neurone disease research, care and general awareness.”

The SDI has also developed a further use for the device, which is now being used for *I am Breathing*, but was developed originally for another documentary – *Future My Love* – a film by Maja Borg that explores the idea of a resource-based economy in a world without money. In keeping with the theme of the film, the SDI decided to use the Portable Fundraiser to create a gift economy, allowing people to watch the film, and then “pay it forward” to other people using the same sliding scale of donations.

“We can’t just live by the principles of the film and release it for free, but we wanted to find some sort of step in the right direction and came up with the pay-it-forward concept.”

“This concept had already been used in places such as coffee shops, Kempas explains, and has been taken up by others in the film industry. People would buy a couple of coffees for the people who come in after them, then those people return the favour to others. But it’s a concept that hadn’t been applied to film production – we were the first to do that in the film world.”

“It’s really nice to see that it’s already catching on – the Oscar-nominated documentary *The Square*, about the unrest in Egypt, were looking for a way to give the film to people in Egypt who weren’t in a position to watch the film otherwise. So they approached us to see if they could use the pay-it-forward concept that we had just launched with *Future My Love*. We were very happy to agree to that and to see it used by others in the film world.”

The SDI learnt a lot about technological development during the project, says Kempas, and what they might change if they were to do another, similar project.

“The biggest challenge was staying within the timeframe, because there are all sorts of factors that you didn’t plan for – such as something in the tech development not going quite as fast as it should.”

Communication was vital to the relationship with Distrify.

“The most important thing is to keep the dialogue going at all times. As soon as the tech company is left on their own for too long and certain decisions are made there – for very good reasons – that we as an arts organisation aren’t aware of, then there’s potential disagreement, or things might not be delivered in the way we expected them to be. It’s the same the other way round – we do a lot of discussing around the film campaigns and we

need to constantly tell the tech company about that and not keep them on their toes either. Never let it rest for too long – keep that dialogue going all the time.”

One further positive aspect of the project for the SDI was unexpected, Kempas says, and that was the way the Portable Fundraiser has continued to grow.

“The project officially finished in October, but here we are in March developing the toolset even further, and rolling it out for new projects,” Kempas adds. “It’s also nice to see that people we hired for the outreach campaign are still doing work for us, and that there’s this knock-on effect.”

“Whenever you make a film and it’s about something important, you end up in a conflict between commercial interests and the fundamental interests of the film. You’re not encouraged to act morally in terms of the monetary system — you’re not rewarded financially for following your morals. You’re even economically punished for buying FairTrade products, for example.”

“If you do a project that is about a very important issue, it very often isn’t compatible with commercial interests, so as an artist you’re negotiating that all the time. You have to be able to find a way to survive within the system.”

*“Luckily the two co-producers of **Future My Love** and I agreed early on that it was fine that the film wouldn’t make any of us money. But when it came to the distribution, it wasn’t just our decision. You need to get the film out there, and that costs money. So that’s when we started to think – what if there was something that was sustainable in monetary terms, so it could perpetuate itself and fund itself, but also keep spreading to more people. That’s when we spoke about the pay-it-forward model.*

“It’s worked for the film, because when people see the film, if they identify with it they often want to do something directly. To be able to give the film forward seems to be something that is satisfying for some of the audience, and it also seems to be the sort of film where people identify other specific people who may want to see it. We wouldn’t know how to target those people – but people know their own friends and colleagues, so it’s reached people who will be specifically interested in it.

“It shouldn’t be an excuse to think that independent films should fund themselves, but new tools, and social media and the idea of word of mouth, are really useful and exciting.”

“I am **Breathing** has been extraordinarily helpful to us. We’ve had awareness campaigns for the past few years, but last year’s, because we could use the film, was so much more successful. It made a massive difference to us – not just the film itself, which was wonderful, but the fact that Neil Platt’s wife Louise was able to share her story in the press and television. She did such a good job – and we felt hugely grateful to the Scottish Documentary Institute and to the Platt family.”

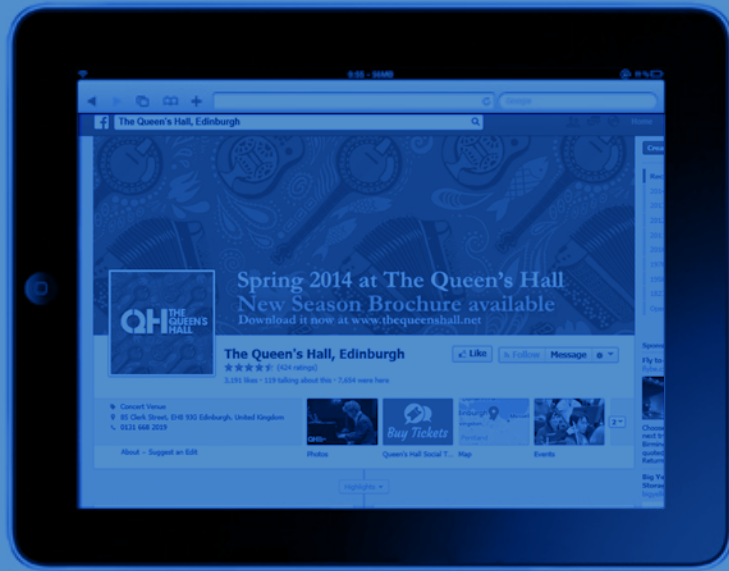
“Many of our 89 branches showed the film locally, and some tried to get influential people along to watch it; we also used it as a fundraising opportunity, to get media exposure; and we took it to the House of Lords and had a viewing for MPs and peers. We used it as an opportunity to bring MND to the attention of as many people as possible. We also used the free Tube and Network Rail advertising we were given as well as social media to put the message across to our followers.”

“When many of us donate we always like to know where the money is going, and for many people it’s important to connect their money to something tangible, so seeing [on the Portable Fundraiser’s slider] that they can connect it to something that means something to them and that they can see the benefit of, for some people that’s important. Though others will be happy just to support the charity itself and let us decide the priorities, being able to make the connection between your money and the impact that will have is very important.”



Culture Republic

Facebook Social Ticketing App



“If people are thinking of working in this way, then the Digital R&D fund is a really good platform for taking a risk”

Ros Lamont

Culture Republic worked with its technology partners, Whitespace and Ingresso, to create a Facebook app selling tickets for its creative partner, the Queen's Hall in Edinburgh. The partners have documented the learning outcomes from the project to share with other arts organisations across Scotland.

Culture Republic is a national organisation supporting arts bodies across Scotland, helping them to develop and increase their audiences. It was established during the Nesta Digital R&D project in September 2013, following the merger of The Audience Business, based in Edinburgh, and Culture Sparks, based in Glasgow.

When the R&D project began, Culture Republic was still operating as The Audience Business, a subscription-based organisation with a membership base of arts organisations across Edinburgh.

The organisation had been working for a number of years on connecting box office technology to partner websites, and was looking to expand that to embrace the idea of an online box office using other technology, deciding that Facebook was the best platform for its member organisations to reach their target audiences.

“When we came up with the notion of using Facebook, we were looking for a partner organisation that had a wide repertoire, and ideally one where the audiences were active on Facebook,”

Ros Lamont

Deputy Director of Culture Republic.

“The Queen’s Hall is very comfortable working digitally, so that was important, and we knew that there was an appetite there for exploring Facebook.”

The Digital R&D project was something the Queen’s Hall was keen to be involved in as a way of generating more ticket sales.

“There’s a very strong overlap for us as a music venue between social networking — Facebook specifically — and music audiences,” says Andy Catlin, marketing manager at the Queen’s Hall.

“For us this was an opportunity for an additional sales channel that would drive more business.”

There was also understanding and buy-in about the project throughout both organisations.

“Our staff are very aware of the technology that sits behind what was going to become the Facebook ticketing app,” says Catlin.

“So it was just an additional thing that they would have to take into their workload.”

The two organisations looked at several technology partners that already had experience using Facebook as a platform for ticketing apps, and decided to work with Whitespace, a creative digital agency based in Edinburgh that had developed a Facebook app for the Edinburgh Festival Fringe.

“We knew they were comfortable with the technology,” says Catlin.

“They were very skilled in this area and they were local, which we think is very important in the tech-partner relationship. We didn’t want to speculatively invite a group of tech partners — we wanted someone we knew had the skills and expertise.”

Whitespace’s previous experience in developing a Facebook ticketing app meant that the initial technical side of the project was straightforward, and the organisation used the portal provided by their technology partner, Ingresso.

“The relationship between the partners worked well, with all partners keeping to the allocated timescales and budgets. However, Whitespace’s experience on a similar app also meant that all of the partners considered fewer creative ideas at the beginning of the project, and there was less research overall.”

“Whitespace had done something quite similar with the Fringe, and they were looking to replicate a lot of the learnings from that,” says Lamont.

“That managed out a lot of the risk, but it probably also reduced the creativity right at the very beginning. If we were looking to do it again, we might have a different original inception conversation, as opposed to saying, ‘Here’s what we want, how long will it take, here’s the timetable.’”

Using Facebook had huge advantages, but also proved to be one of the biggest barriers, as Facebook changed its regulations while the Queen’s Hall app was under development.

“The advantage of using Facebook is it has a massive targeted audience — they have really mind-blowing amounts of data about their users,” says Catlin.

“The flip side is that we have no control over what they do, and they give you no heads-up, no warnings about changes. It’s now increasingly driven by a commercial imperative, and if you’re not spending money with them, you’ve got to be cautious about the amount of effort you place into the platform.”



It is a significant learning outcome of the project, says Lamont, about exercising caution in using third-party platforms such as Facebook.

“It’s a very fast-moving world, and when you have an 18-month development schedule, being able to predict whether it’s going to be fit for purpose in 18 months is a constant challenge.”

“When we first started talking about the project two years ago, we were looking at where Facebook was, and where the public was in relation to signing up and giving their data to be linked. But the world has changed a lot in those two years, and Facebook is changing constantly.”

“People are a lot more cautious now than they were when we started the project. It’s not about just pushing out the information on Facebook — the Facebook user has to opt in as well, and that’s something there’s resistance to. What we couldn’t mitigate for was an idea from two years ago and how much currency it had when it was actually hitting the public. That’s a constant re-evaluation, but it was good experience for us.”

A significant challenge was that the app was developed only for desktop use, not for mobiles.

The partners discussed creating a mobile-enabled app, but it pushed the project beyond its allocated budget. It is something they would now do differently, considering the significant number of Queen’s Hall customers who book their tickets using mobile devices.

“We came back to the desktop scenario as being the most functional way of dipping our toe in the water,” says Lamont.

“But again, the market has changed — the way people use mobile platforms to engage with all their lifestyle choices has escalated enormously in those two years, so the desktop aspect of Facebook is much less potent at reaching the people we’re targeting.”

The structural changes that took place with the merger of The Audience Business and Culture Spark also posed challenges, but the Queen’s Hall felt they were kept informed about the process.

“It didn’t feel like we were cut adrift, or that there was suddenly a black hole that we’d fallen into, but it did create a speed bump of some description,” says Catlin. Communication was key to managing those changes, Lamont says.

“Changing project managers was obviously critical but we also briefed all the partners regularly so they were very much in the loop. Communication is really important.”

The Digital R&D project has provided Culture Republic with lessons that it will now share with its member organisations across Scotland.

“The concept is still there — it’s with Whitespace and it’s with us. Any other arts organisations who want to go in and try to use that model would probably need to try to make a link between what we’ve learned from doing it and the model that we actually had on the table.”

It would have been beneficial to allocate more resources to marketing the app, but Culture Republic undertook a series of campaigns to test a variety of Facebook advertising channels.

“That has been incredibly useful,” Catlin says.

“There are still a lot of gaps in the cultural sector’s knowledge of how Facebook advertising works. That process took place at the back end of the project — we’ve just received the data back on that, and we’re more than happy to share it with other people. It’s all very well building a product, but if you’re not in a position to promote it after that, it’ll die on the vine.”

The timing of the app’s launch was also a significant factor in the project’s outcome. The launch was scheduled for August, during the busy festival period, and this was something that the partners would reconsider if they were doing another project.

“It was a really busy time,” Lamont says. “To launch something when there’s lots of events on is great, but it also means that people are focusing on those events. We would change the timing and not try to launch it at a really busy time of year.”

Following on from the project there are further projects that the partners want to explore.

“We’d like to have properly realised, impulsive, mobile ticketing,” says Catlin.

“So when somebody sees a poster they can say, ‘Yes, I want two tickets to that’, and buy them. It needs to be better and sharper, and we need to respond to what our customers’ feelings are in that moment.”

Culture Republic will use the information from the Digital R&D project for future digital projects focused on audience engagement.

“Our mission is to support other organisations grow their audiences and support public engagement in culture across Scotland, and the focus on digital is a really powerful aspect of that. That’s not necessarily about delivering profits — this project is a great example of having an opportunity, trialling it and learning from it. Maybe we wouldn’t recommend it to our constituency, but we’ve done that from a position of knowledge and we’ve got those learnings.”

“If people are thinking of working in this way then the Digital R&D fund is a really good platform for taking a risk in a way that other funding sources aren’t. It’s a really good opportunity.”



“The real positives for us on this project were that our ideas were bought into, and that the partners had found our previous example and wanted to explore it further.

Also, working with those different organisations, nurturing those relationships and making sure we carried that through from start to finish. It was great being able to work with Ingresso, Culture Republic and Queen’s Hall as the client.”

“The trickiest part for us was that we were working with The Audience Business and then they went through the process of merging with Culture Sparks to become Culture Republic. We went through three project managers, and that was quite tricky because of the handover. Little bits were missed here and there, so it was difficult sometimes.”

“We originally created the app so that it would have a couple of options. We could do quite a basic standard option, so in future if people wanted to have their own ticketing app they could either have a lower cost, lower end version or a more expensive, bespoke version. Because we’d built the functionality, it would be fairly simple to then replicate for other clients, so it was useful for us in that sense.”

“In the future we would suggest a better tie-up and crossover between the different areas. For something like that to work it needs to be promoted in the right places and that wasn’t really done until later. Similarly with the Fringe app people weren’t using it in the way we would’ve liked — people were finding out about Fringe shows through different avenues.”

“We had a few stumbling blocks with the portal and there were a few difficulties with Facebook itself. Their rules and regulations about what kind of information could be pulled through changed, so before you could even enter the app you were faced with three separate information boxes, and that’s a big barrier to many people. That hadn’t been in place for the Fringe app.”

“It’s all about what work goes on behind the scenes, and from a project point of view, it’s how all the partners tie in to make it work. It’s about bringing everyone together, and everyone having the same understanding and the same kind of goal.”



Credits

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