**Digital R&D Fund
for the Arts**

Pavilion Dance South West: Dance Video Game

Research and Development Report

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Digital R&D Fund for the Arts

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Can a playful mobile platform enhance engagement and participation in a particular art form?

Executive Summary

Background

Console games such as *Just Dance Wii* and TV programmes like *Strictly Come Dancing* have attracted vast audiences in recent years, but participation in the dance art form remains relatively low. Approximately 3% of people in England attended a contemporary dance performance in 2012––13.

Pavilion Dance South West (PDSW) is the national dance development organisation for the South West of England, supporting regional dance strategy development and representing the South West dance sector nationally. Part of the organisation's remit is developing audiences for, and participation in, dance in the South West, a region of spread-out urban centres and rural spaces that poses significant challenges for arts organisations and their audiences, some of which have to travel long distances to their nearest arts venue.

PDSW identified an opportunity to explore how a digital intervention could be engineered to connect people who like to dance, using their immediate surroundings as a backdrop and inspiration. The project could tap into young people's existing smartphone habits, rather than requiring them to make changes to their lives in order to attend a dance class or watch a performance.

The project

The idea tested through this project was to develop a location-based gaming app to encourage more people to dance, and to reach people who wouldn't classify themselves as dancers. The broader research proposition for the arts sector was:

> Can a playful mobile platform enhance engagement and participation in a particular art form?

The academic research concerns were to explore the iterative processes of design and testing of this experimental and playful digital platform, and to capture users' embodied and experiential engagement with the app in its everyday use. The project wanted to explore the extent to which individuals

and groups outside formal arts and educational institutions might build their own interest-based networks.

PDSW partnered with Mobile Pie and University of the West of England (UWE) in a new working group of organisations and individuals to deliver the project. Despite having not worked together previously, the team gelled immediately through regular face-to-face meetings, and sustained a supportive and productive collaboration throughout the duration of the project. From spring 2013, the initial team met at Mobile Pie to begin shaping the form of the app and plan its rollout to the dance community and beyond.

The app would allow players to upload their videos to a microsite, view, share and rate others' videos, and challenge other players at tagged locations. The supporting website or competitions might let them know about local dance opportunities so they could deepen their interest and commitment and attend local dance classes and events if their interest had been sparked.

The first steps for Mobile Pie were to come up with the general design and flow of gameplay and to prototype it quickly to test the key technical elements. The whole team was involved in discussions of the gameplay mechanic, the visual interface or theme of the app, the role of music, which platforms to use (e.g., YouTube, FourSquare), and so on.

PDSW's network of dancers, dance teachers and students was involved in testing and gathering suggestions and feedback for its development and possibilities. Research on the design process itself was conducted through ethnographic description of meetings and production activities.

An early test of the app in September 2013 demonstrated that, with a little encouragement, members of the public who would not normally self-identify as dancers can have great fun dancing for a short period of time within the playful and performative context of an app/game. The team roamed the streets of Brighton in DanceTag T-shirtsequipped with iPhones loaded with the beta version of the app. Groups and individuals were approached and invited to try the app by dancing for 15 seconds.

Students at Bristol City College testing
DanceTag

Photo: Kevin Clifford

The app was able to challenge the creativity of the dancers, enable them to create new work quickly, see what their dance looked like and explore the relationship between their dance and location. It proved popular with young people involved with dance in groups and at events, and established a 'proof of concept' for its social media potential.

With Mobile Pie's release of the app for iOS on the App Store in November, the team began working in earnest. Tags started spreading across the in-app map, particularly once the Android version was released just before Christmas. A supporting website was created to locate the app in the wider context of dance in the South West and connect people with dance opportunities.

The team continued working intensely with dance and student groups, partners and events to promote DanceTag. This involved moderating and editing the uploaded videos to best showcase the aims and possibilities of DanceTag to new players.

Results

The design and testing process showed promising signs, but online play was still at a relatively early stage as the initial year of the project came to a close. The team was given permission by the Digital R&D Fund to extend the programme for a further two months to allow time for more use of the app.

DanceTags were recorded and viewed in locations from Edinburgh to Truro, New York (USA) to Malmö (Sweden), but the app struggled to generate significant audience engagement beyond its testing phase.

Out of 394 new users, a total of 4,988 sessions have been registered since the start of the project, but there has been no evidence of subsequent impact on dance engagement in the South West.

> 'We had hoped that DanceTag would ride on a tidal wave of social network interest and have huge use. What we found was that the spikes in use correlated with physical events, e.g. youth-dance platforms or festivals. Social networking didn't spread the use. Young people used the game in their youth-dance setting but not at home.'
>
> **Zannah Doan**

As well as considering a range of potential improvements to reduce technical glitches and improve design, the team also made the decision to concentrate on engaging with stakeholder needs and laying the foundations for future work, rather than focusing on the press and addressing big audiences through celebrity endorsements. From early 2014, community and communications efforts were targeted more closely, with the help of cultural partners, dance groups and funding bodies.

In addition to the platform, which is freely available, the project produced useful findings on cost, timescale, marketing challenges and the potential impact of social media and game apps on arts institutions.

Insights

Many insights from the project are relevant for the wider arts and cultural sector:

- Simplifying and prioritising the scope of R&D projects may allow for the best use of resources, such as concentrating on a single platform and operating system

- Early user testing to guide key design decisions is critical. From the start, the project's ethos was to be agile, and to test and iterate, but the team would engage in more co-design in future. Specifically, user feedback on DanceTag has shown that:

    o players wanted to find and make friends and the system wasn't user-friendly enough

    o people like to use their own music

    o people are reluctant to perform in public – it is important to be realistic about expectations of public participation.

- There is a balance to be struck between getting a working version out to people quickly but making it accessible and user-friendly enough to be appealing

- Generating a self-sustaining online audience beyond this face-to-face initiation is difficult and likely to require significant action research

- Modelling and moderating content can help maintain a quality of dance and performance that fits with the ethos and reputation of the professional arts sector

- Project-management resources for R&D should not be underestimated. Managing DanceTag took a great deal more time than anticipated, on account of the depth of detail in areas such as legal frameworks (terms and conditions of use, user info, competition rules, trademarking) and keeping partners moving forward together

- Technical constraints and affordances impact on the design process, and require time and resources to resolve fully. DanceTag illustrates that there are limits to what can be achieved within a limited budget (£125,000) and timeframe (14 months)

- Effective collaborative working is critical for delivery. Each team member found the regular face-to-face meetings crucial to forging relationships, sharing ideas and avoiding misunderstandings.

Future

Returning to the original proposition, while there are interesting opportunities for playful mobile platforms in the dance sector, the experience of DanceTag suggests that a mobile dance game may not be a resource-efficient mechanism to build engagement and participation in dance. DanceTag enabled some compelling experiences for users, but engagement was highest within the context of structured events with groups of young dancers.

Arts organisations also need to be realistic about the market size and appetite for novel concepts, and particularly any expectations of flow-on impacts from an initial engagement. Building awareness and a compelling 'hook' for audiences to download apps is a significant marketing challenge, which is complicated by timelines for testing, release and bug-fixes.

Those seeking to explore such goals should proceed with caution, conduct market testing and user co-design exercises as early as possible, and commit to developing and refining the concept/product across a multi-year programme.

Nonetheless, the process gave the team exposure in new ways, opening up doors to the worlds of gaming and innovation for PDSW and Seth Giddings; UWE have co-designed a new 'Augmented Dance' network and shared reports about the research at academic and digital events.

The process has also had organisational impacts: PDSW is now exploring other creative ways of using digital interventions for dance, and the cross-cutting themes of 'digital' and 'innovation' have been written into the organisational business plan, laying the basis for further experimentation in the future.

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DanceTag reached people from Truro to Edinburgh, New York to Malmö, but the app struggled to generate significant audience engagement beyond its testing phase.

Background

Console games such as *Just Dance Wii* and TV programmes like *Strictly Come Dancing* have attracted vast audiences in recent years, but participation in the dance art form remains relatively low. Approximately 3% of people in England attended a contemporary dance performance in 2012–13. In comparison, *Just Dance* by Ubisoft had 2.5 million sales in 2009–12,[1] and *Dance Central* on Xbox 360 had 2.94 million by January 2011.[2]

Pavilion Dance South West (PDSW) is the national dance development organisation for the South West of England, supporting regional dance strategy development and representing the South West dance sector nationally. The organisation works collaboratively with partners to develop and sustain opportunities for people to make, present, watch and participate in dance. In their Bournemouth-based venue PDSW has two large dance studios and a 200-seat theatre, where they present dance performances, live screenings, art-house films, exhibitions and give over 40 weekly dance classes.

The seeds of DanceTag were sown when Zannah Doan, regional producer at PDSW, saw *Spill*, a DanceExchange and Shaun Parker & Company dance performance, which took place in children's playgrounds. Musing on the fact that there are playgrounds in every community, whether rural or urban, she saw the potential for the creation of dance in local public places that might help overcome the barriers of getting to and performing in a traditional performance venue.

This potential seemed particularly significant for the South West, a region of spread-out urban centres and rural spaces that poses significant challenges for arts organisations and their audiences, some of which have to travel long distances to their nearest arts venue. The Department of Culture, Media and Sport's (DCMS) 2011/12 Taking Part survey shows that 15% of the South West public attended dance performances and 8% participated in dance. An opportunity therefore existed to explore how digital intervention could be engineered to connect people who like to dance, using their immediate surroundings as a backdrop and inspiration.

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[1] www.gamesoft.com (January 2012)
[2] www.ukgamespot.com (August 2011)

There was also an opportunity to enhance PDSW's reach, dance development role, engagement with the public and innovative use of game forms and gamification. This could be a project that furthered PDSW's democratisation of dance, allowing more people to access dance regardless of their location or experience of dance.

Demonstration of DanceTag by (left to right) Cameron Shepherd, Jodelle Douglas and John Briones

Photo: Kevin Clifford

For Mobile Pie, the attraction of DanceTag was the opportunity to work on a game that was unconventional and that combined dance, location and social gaming. It was envisaged that the gameplay would attract people interested in watching dance on TV or in playing dance games on the Wii, enable people to record themselves dancing and demonstrate how many members of the public enjoy dancing.

This would mean that players could come from anywhere at any time. On one level, this meant there was no way of judging the winner and no automatic point-scoring. The game mechanic would be driven by the community, not the software. Mobile Pie enjoys a challenge and seeks to explore new possibilities for gaming, and the R&D scheme offered both without the commercial pressures of a client.

Seth Giddings of the Digital Culture Research Centre (DCRC) has experience in ethnographies of popular video gameplay and user testing of experimental mobile applications at the Pervasive Media Studio. For him, the project promised further research in playful digital media through sustained collaboration. By being involved in the project from the start, he could study its development as a technological project, creative collaboration and experiment in gameplay design and social interaction. He could also apply and adapt his established ethnographic research methods to both the design process itself and to the testing of the prototype game app.

DanceTag is also well aligned with the DCRC's research into the practices and socio-cultural meanings of emerging media:

> 'In a context of transforming media cultures, in which established methods of producing and understanding media are undergoing rapid change, we study the application, processes and politics of digital creative technologies. We map and contextualise emerging practices. We critically reflect on their aesthetics, ethics and impacts.'
>
> **Digital Cultures Research Centre**
> **http://www.dcrc.org.uk/about/**

The project partners identified five different test user groups, which could be accessed through the existing networks of PDSW: gamers, youth-dance company members, students, professional dance artists and accessibility groups. The 15–30 age groups represented an important opportunity for the development of dance audiences, as a majority were already using smartphones. The project could therefore tap into young people's existing smartphone habits, rather than requiring them to make changes to their lives in order to attend a dance class or watch a performance.

It could also potentially attract more people to dance, share dances and watch other people's DanceTags. Through its place-making dynamic the project could engage dancers across locations and encourage them to explore and enjoy these different places/locations as a context and inspiration for performance. The supporting website or competitions might let them know about local dance opportunities so they could deepen their interest and commitment and attend local dance classes and events if their interest had been sparked.

Demonstration of the DanceTag concept

Photo: Kevin Clifford

The proposition is relevant to the wider subsidised sector, which is trying to broaden its reach through innovative approaches, and to those with ambitions to develop strategies involving digital games, location-aware apps and social-media communities. In its aims to break down barriers to entering arts spaces, enabling engagement anywhere, the project offers an approach to digital development for any live art form.

The DanceTag project is cutting-edge in a number of respects, pushing forward the state of play in cultural engagement through digital media technologies and platforms. It has experimental and conceptual synergies with innovative projects at the Pervasive Media Studio and its wider community in Bristol, such as the Nth Screen project, Cluster Publishing's Apps for the Arts, or the street games and augmented reality projects of Slingshot.

It also shares aims and a community-building and co-creation ethos with other Digital R&D projects, including the dance-specific Yorkshire Dance and FormsXtended, and others such as the Imperial War Museum's crowd-sourcing curation.

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It aims to break down barriers to entering arts spaces, enabling engagement anywhere, and encouraging community building on and off line.

The Project

The idea tested through this project was to develop a location-based gaming app to encourage more people to dance and to reach people who wouldn't classify themselves as dancers. The broader research proposition for the arts sector was:

> Can a playful mobile platform enhance engagement and participation in a particular art form?

The app would allow players to upload their videos to a microsite, view, share and rate others' videos, and challenge other players at tagged locations. The project also wanted to explore the extent to which individuals and groups outside formal arts and educational institutions might build their own interest-based networks.

The academic research concerns were to explore the iterative processes of design and testing of this experimental and playful digital platform, and to capture users' embodied and experiential engagement with the app in its everyday use.

Key roles

The key figures in the team at the start of the project were:

- Zannah Doan and Ian Abbott from PDSW. Zannah was the co-initiator and producer, and Ian a co-initiator and creative contributor to the shape and aims of the game

- Richard Wilson and Matt Aranha of Mobile Pie developed the app. Richard was the producer on the project, liaising with the other project partners, maintaining a general overview of technical progress and ensuring Matt as lead developer had the resources and information he needed. Tom Parry of Mobile Pie designed the app's visual elements

- Seth Giddings of UWE and the DCRC was the academic partner; as well as conducting the project's ethnographic research, he contributed to the production discussions, exhibitions and presentations.

The partnership of PDSW, Mobile Pie and UWE was a brand-new working group of organisations and individuals.

Despite having not worked together previously, the team gelled immediately and sustained a supportive and productive collaboration throughout the duration of the project, and potentially beyond.

In May 2013 the project employed two new members: Gillian Taylor joined as PR coordinator, and Joe Ryan was appointed community manager.

Gillian's key tasks were to communicate with a range of audiences and to ensure that DanceTag had a clear voice. She worked closely with the dance and arts sector to spread the word and get feedback from them. She also focused on and consulted a number of key people about how the app might work for people with hearing difficulties.

Joe's role entailed user engagement, project development research and online moderation of uploaded videos. His expertise in game mechanics and communities, the iterative development process and the collection of analytic data has been crucial in the management and assessment of the game's development and emerging community. Later on still, in April 2014, PDSW brought in Heidi Lesiw as DanceTag ambassador for two months to promote and gather feedback about the game. Heidi was on a long work placement from the University of Surrey and working towards her Gold Arts award.

The project went through three main stages.

Phase 1 – planning and design

From spring 2013 the initial team met at Mobile Pie to begin shaping the form of the app and plan its rollout to the dance community and beyond. The first steps for Mobile Pie were to come up with the general design and flow of gameplay and to prototype it quickly to test the key technical elements. The whole team was involved in discussions of the gameplay mechanic, the visual interface or theme of the app, the role of music, which platforms to use (e.g., YouTube, FourSquare), and so on.

PDSW's core target group, i.e., dancers and those interested in dance, was involved in testing and gathering suggestions and feedback for its development and possibilities. Katey Leader, director of dance at Take Art and coordinator of Somerset Youth Dance Company, was engaged with the DanceTag idea as a result of a live testing of the concept that took place in

February 2013, when her youth-dance company tried out the idea of filming each other and uploading and setting challenges, and have continued to be involved since then with the app. She summarised the highlights of DanceTag for these young people as bound up with the sense they have of control over their dances: they get to decide where and when they film themselves.

> 'It starts a buzz and then sets off a chain reaction: we might have used it together as a group but then they'll go off and use it in their own time and find opportunities themselves – with friends or with other dance groups. It's a nice way of bringing dance into the digital world and connecting with young people, something young people can engage with really easily. In a medium – mobile phones – they're very familiar with using, this engages them creatively while using their mobiles.'
>
> **Katey Leader, Director of Dance at Take Art and coordinator of Somerset Youth Dance Company**

Research on the design process itself was conducted through ethnographic description of meetings and production activities. A literature review of academic research on mobile games was compiled, and key research questions identified. The initial micro-ethnographic fieldwork on game design planning was documented as photographic, video, and audio files were logged and annotated ready for analysis.

Given DanceTag's appeal to young people, the team addressed child-protection issues from the start and established a moderation system to follow the 13+ age restriction established by social-media platforms such as Facebook. However, a couple of videos were uploaded from young people's bedrooms which, given the project's outdoor emphasis, had not been anticipated. These were quickly picked up through moderation and removed from public view.

The main technical risks concerned whether the app idea was technically possible in the first place. This required testing key elements from the start. Moreover, because this was a networked social game, any decisions early on would affect the end product. For example, numerous ideas about how to work with music were raised in team discussions and later in audience feedback, but key decisions had to be made at the very beginning as any

changes would have fundamentally changed the gameplay and every other aspect of the app. Risks such as these were effectively managed through the regular team meetings.

Mobile Pie adapted and knitted together a range of mobile, locative and media-processing platforms and services for the production of the game. They found ways of using a variety of Amazon Cloud services to manage the entire back end of the game. This included running the database to manage the user and video data, as well as using a mixture of video-processing tools to edit the videos to a consistent size and format that would be accessible for mobile devices, since the format produced by the mobile devices was not suitable. Although Amazon Cloud services provided the core functionality, a significant amount of development was needed to meet the games requirements.

Mobile Pie learned a great deal from adapting these tools to meet the game's needs. DanceTag is innovative as a game in its own right: there are very few games that rely on a social/community dynamic where the whole community judges and shares achievement. The project found that a game of this new type can work in two overlapping but distinct ways (see Insights chapter below).

Figure 1 - Simple diagram of the community-driven game mechanic
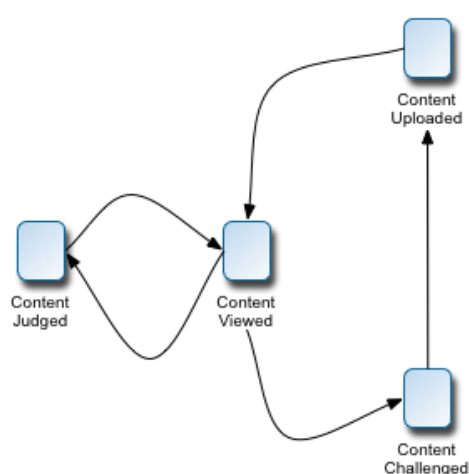
For the academic research stream of the project, DanceTag necessitated new approaches to design ethnography. Although there is a rich history of workplace/technical design research in the software industry (e.g., Woolgar 1990, Dourish 2001), and in experimental media design (e.g., Balsamo 2011, Dovey & Fleuriot 2012), to date there has been very little research on the

processes of production of entertainment technology in general, or on digital, social and mobile games in particular.

Seth Giddings gathered empirical material from observing meetings, design activities (from sketching wireframes to decisions on social-media platforms) and testing 'in the field'. Throughout, the collaborative organisation of the project allowed transparent access to the processes of articulating and inter-relating technical, aesthetic and cultural factors and decisions, resulting in a wealth of empirical and conceptual insights. As well as producing outputs based directly on the DanceTag research (further explored in the Results chapter), these insights will feed into the DCRC's ongoing engagement with knowledge exchange and digital innovation for creative culture.

Gillian Taylor and Joe Ryan joined in the summer and with a working prototype of the app the project entered a more intensive phase of testing and engagement with partners and public. PDSW and Joe worked with a range of groups, gathering feedback and suggestions (see Results). Joe conducted play tests from an early stage, looking to gamers to engage with the app as well as dancers. He used different groups, conducted surveys and worked with Mobile Pie on the game mechanics.

Pre-project soundings in the dance community were continued and ramped up, and a range of different communities was engaged right from the start, including gamers (Bristol Games Hub, City of Bristol College game design students), dance specialist groups (e.g., PDSW's youth-dance group, 2BU), professional dancers (e.g., Tim Casson) and students at Bath Spa University.

Events attended throughout the project included Game City in Nottingham, Game Invest in London, X-Play in Bath, Venture Fest and K'ching in Bristol and the Arts & Humanities Research Council (AHRC) Creative Economy Showcase in London. The whole team also worked together on public testing and presentation of a beta version of DanceTag at the Brighton Digital Festival in September 2013. Dance events attended by members of the team included British Dance Edition and Spring Forward festival. The app was showcased to and tested by the wider dance community, generating awareness within the sector and gaining valuable feedback.

The team considered issues of accessibility (for example, consulting Faye Stewart, a deaf user, and Linwood Special School, a school for young people with learning and physical disabilities as well as autism and Aspergers).

*UWE's Dr Seth Giddings talks about the
DanceTag app at AHRC's 2014 Creative
Economy Showcase*

Source: AHRC

Together, Gillian and Joe looked at community growth through social media, and game and cultural economy events were taken as opportunities to showcase how DanceTag might create cultural and economic value. Joe also collated technical feedback, reporting any bugs or suggestions from users to Mobile Pie. PDSW asked every company that came to perform in Bournemouth to do a DanceTag, and Gemma, PDSW's youth and education coordinator, worked with their associate school's programme to get lots of young people 'dance-tagging' all over Bournemouth. During this stage the title 'Pulse Dance Game' was also trialled, until it was realised that another Digital R&D performing-arts project had called their app Pulse and the name DanceTag was reinstated.

With Mobile Pie's release of the app for iOS on the App Store in November, the team could begin working with it in earnest. Tags started spreading across the in-app map, particularly once the Android version was released just before Christmas. PDSW, Gillian and Joe continued working intensely with dance and student groups, partners and events to promote DanceTag. Joe and Zannah moderated and edited the uploaded videos to best showcase the aims and possibilities of DanceTag to new players. Seth began

in-depth work on the ethnographic material alongside further fieldwork on user testing of the prototype app in early 2014.
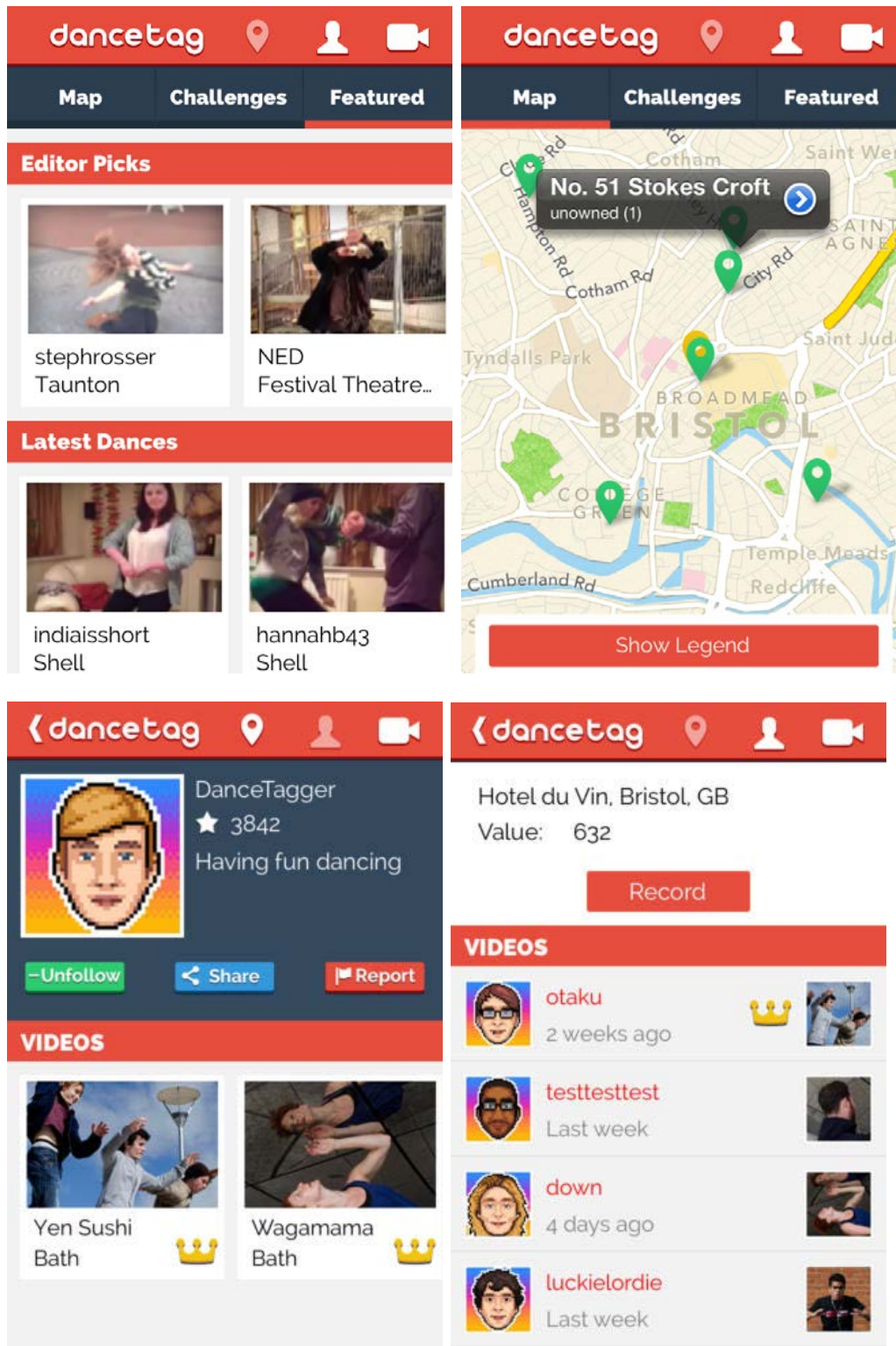
Screenshots from DanceTag app

Source: DanceTag

DanceTag was a prominent presence at the AHRC's Creative Economy Showcase event in London in March 2014. Team members were interviewed in the event's live video stream, and the project was subsequently featured on the AHRC website's front page. The event was also an opportunity for the team to reflect begin to discuss future possibilities.

Given the experimental and ambitious character of DanceTag, it is not surprising that the project shifted its emphasis over the year. The rigorous iterative design and testing process led to a genuinely innovative and exciting app and game, but with release through the App Store and Google Play taking place around Christmas 2013, the building of online play was still at a relatively early stage as the initial year of the project came to a close. This was documented through the team's 'learning reports' to the Fund:

> 'October 2013: We are getting a sense of the scale and ambition of the project – exceeding the time and resources of the Digital R&D Fund. As app testing gets underway, we are beginning to discuss our ambitions – and the reality – of the project. We believe in its boundary-less appeal and that it is 'of the moment'. We believe that there are different versions that could appeal to different markets. But we haven't yet come out of testing, and only have effectively three months to garner the analytics (mid-November – mid-February), understand its pattern of usage and think about how to realise the ambitions. We have a great team but most of us are doing serious multi-tasking and it feels like we could spend a considerably longer amount of time on this. Are we able to make reality in any way match our ambitions for DanceTag?

> Mid-December 2013: We are now at a stage where the app is on the App Store and we are hoping for an Android version in the next few weeks. However, as the project comes to an end at the end of February, two months is a very small time frame to build an audience of any size. The data and users we receive by the end of the project might not reflect the true potential of the app. This means that the full potential of the project – its generation of a community and engagement with dance, and research into that community and engagement – can only be realised with support beyond the initial R&D scheme.'

This meant that from early 2014 community and communications efforts were targeted more closely, together with cultural partners, dance groups and funding bodies such as Arts Council England, to engage with their needs and lay foundations for future work, rather than focusing on the press and addressing big audiences through celebrity endorsements. PDSW was also given permission by the Digital R&D Fund to extend the programme for a further two months to allow time for more use of the app.

A key advantage of continuing to work closely with dance groups and young people was gathering more considered feedback about the use of the app. The team recognised that in order to develop the app for a wider market, it would be necessary to look much more carefully at how it was used and adapt it accordingly.

Project budget

The total budget for the project was £123,820, including project management, technical development, research and community management/marketing. In terms of money and partner investment the project followed the initial plan closely. However, in terms of individual team members' investment of days and hours in the project this went way beyond the time and effort anticipated. This was partly a result of the ambitious nature of the project and the range of work it entailed, and partly a result of the team's enthusiasm for DanceTag and the desire to see it realised.

Project managing DanceTag took a great deal more time than anticipated due to the depth of detail of areas such as legal frameworks (terms and conditions of use, user info, competition rules, trademarking), as well as keeping all areas of the partnership moving forward and together. The team had not considered the amount of time or money that developing T&Cs and guidelines for a social game would take, and the project's reliance on music meant music agreements had to be drawn up and an independent barrister found to check all the legal documentation.

The contingency funds were invested in trademarking, legal advice, making a film and attending conferences/exhibitions, while some funds were used to extend the community manager and PR manager roles on the project. Some of the costs for travel/accommodation were absorbed through each partners' core costs.

Figure 2 - Summary of project budget

	Budget	Actual	Proportion
Project management	13,000	20,000	16%
Community management, PR and marketing	25,904	22,700	18%
Technical development and ongoing support	54,000	54,000	44%
Research	22,020	22,020	18%
Other	8,896	5,076	4%
Total	**123,820**	**123,796**	

	Budget	Actual	Proportion

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The investment of days and hours went way beyond that anticipated – partly as a result of the ambitious nature of DanceTag, and partly because of the team's enthusiasm to see it realised.

Results

The key outcome of the DanceTag project was a game that proved popular with young people involved with dance in groups and at events, and established a 'proof of concept' for its social-media potential.

The app was able to challenge the creativity of the dancers, enable them to create new work quickly, see what their dance looked like and explore the relationship between their dance and location.

DanceTags have been recorded and viewed in locations from Edinburgh to Truro, New York (USA) to Malmö (Sweden), but the app has struggled to generate significant audience engagement beyond its testing phase. Out of 394 new users, a total 4,988 sessions have been registered from the start of the project, but there has been no evidence of subsequent impact on dance engagement in the South West.

> 'We had hoped that DanceTag would ride on a tidal wave of social network interest and have huge use. What we found was that the spikes in use correlated with physical events, e.g., youth-dance platforms or festivals. Social networking didn't spread the use. Young people used the game in their youth-dance setting but not at home.'
>
> **Zannah Doan**

Further details of the qualitative findings are detailed below, followed by a summary of the quantitative findings.

DanceTag field trials

An early test of the app in September 2013 demonstrated that, with a little encouragement, members of the public who would not normally self-identify as dancers can have great fun dancing for a short period of time within the playful and performative context of an app/game. The team roamed the streets of Brighton in DanceTag T-shirts and equipped with iPhones loaded with the beta version of the app. Groups and individuals were approached and invited to try the app by dancing for 15 seconds. After a slow start (more to do with the team's reticence, perhaps), this was surprisingly successful and a wide variety of dancers was captured, from an extrovert minor celebrity to an energetic hen party. The footage and the team's

reflections on the experience, and on the workings of the app 'in the wild', fed into a presentation that evening at the Brighton Digital Festival, and into a subsequent presentation at the Nesta event the following week.

Hen party DanceTagging in Brighton

Photo: PDSW

For the last two months of the project, Heidi promoted DanceTag throughout the Bournemouth and Poole area, by talking to all visiting groups to Pavilion Dance in Bournemouth and using her own personal and social networks. She engaged with Linwood Special School, 2BU, secondary schools including Avonbourne and Harewood, and with youth-dance companies. Her involvement increased the amount of content, and her analysis and suggestions from a regular user perspective were particularly valuable:

> 'Feedback has been really positive, young people have really enjoyed the app and have found it easy to use. They enjoy uploading challenges. Even when the site crashes they are happy to continue rehearsing their pieces. They don't mind the music, it's nice to have already uploaded music on there, and it helps them remember their dance as they keep repeating it to the same music.'

> **Heidi Lesiw**

The team realised that when the site crashed dancers would have to repeat their dance or not see it on the site – a frustration that they would need to address as a priority in the future.

Somerset Youth Dance Company's (SYDC) filming sessions in Taunton were superb demonstrations of the power of DanceTag. From the pilot phase 'DanceTag Live', they have clearly demonstrated how contemporary dance could capture well-known local spots and combine the potential of dance and place-making. The outdoor backdrop also provided very watchable dance films. In the live pilot, Katy Leader set the dancers a challenge to find the 'most Somerset location' and one dancer tagged herself on a farm with cows in the background. Another danced in a telephone box, and yet another group built a dance around jumping over bollards. As Katy put it, 'They started to engage with their surroundings and appreciate them in a different way.'

Gemma Connell, PDSW's youth and education coordinator, tested DanceTag with their youth company 2BU in its early stages, and since its release they have been using it on the beach, videoing their own site-specific choreography. She ensured that visiting youth-dance companies filmed their technical runs through the app, then sent them off in their breaks into Bournemouth to challenge each other and get lots of tags around the area.

> 'Everyone really likes the idea of the app and the fact that you can challenge people, including in other countries – they find it really cool that you could challenge someone in New York. [There were] a few glitches, but generally they find it very user-friendly.
>
> I'm also the top scorer for tagging, partly because I'm a bit of a social-media obsessive – I'm a fan of FourSquare and Twitter and things like that – and of a generation that is fascinated by social media. So I was very excited to work on it.'
>
> **Gemma Connell, PDSW's youth and education coordinator**

Gemma was also concerned with issues of accessibility. She tested it with a group of young children with autism:

> 'They got really excited about the idea of the app because it was something they had never seen before, something they didn't necessarily think was possible in the app world. It was very easy for them to use, and they did some dances around the Pavilion Dance terraces and on the beach. They had prepared some routines with their dance teacher and then performed them for the app. They

were very proud of what they'd done and the fact that it was out there for people to see really meant a lot to them. They took it back to school and continued to use it in their lessons, as they found that they were learning about technology and dance at the same time.'

Gemma Connell, PDSW's youth and education coordinator

Faye Stewart, Relationship Manager for Participation and Engagement, Arts Council England (SW office), thought that young people of 15–20 years would be interested in giving it a try.

'I think it will start small and spread through word of mouth, groups of friends, and then it will grow. It should be polished and developed in response to this community. It could be shared through Facebook, Twitter, Instagram – young people are fascinated to know what's happening through social media.'

Faye Stewart, Arts Council England

She reflected on the appeal of the app for people with hearing difficulties in particular:

'Deaf people have different levels of hearing loss, different ways of engaging with music. I'm profoundly deaf so I can't hear music at all, but there are ways round that. A lot of deaf people like to go to nightclubs because you can feel the music from the huge speakers. That's how I cope with music, I feel it in my body and that enables me to dance. So I can imagine people having different ways of getting involved. The app is one way of hearing music, a different way of engaging with music and dance.'

Faye Stewart, Arts Council England

Seth tested the released app with a group of university students taking a module on games for their Media degree. He was interested to see how a group of young people who were interested in games but not in dance responded to DanceTag. They enjoyed the challenge and took it in turns to explore the campus looking for photogenic locations for their moves.

Overall, they enjoyed playing with the app, finding locations and filming (they were photographers and videographers). They found it intuitive to use, really liked the integrated videoing/uploading/sharing mechanic, but none

felt it was their sort of game in its specific form – none was a dancer. They thought it could be adapted to be a party game, encouraging different kinds of silly dancing. Interestingly, while dance students sometimes said they would prefer to record for longer, these young people would have preferred a shorter sequence (a *Vine*-like seven seconds was a popular suggestion) as they felt self-conscious dancing on camera for 15 seconds. The test triggered a lively discussion on all sorts of user-generated video and viral/social crazes involving phones, video, music, dance and interruptions in public space, from Harlem Shake and Gangnam Style to planking.

Joe was also involved in testing with 2BU at an early stage. The dancers were resoundingly enthusiastic about the idea of the app, and particularly liked the fact that dances could be uploaded without switching to YouTube. They intended to persuade their dance teachers at school to use it in lessons. It was also tested by BTEC students at Exeter College. After some technical problems (intermittent Wi-Fi connection, many of the students owning Blackberry phones – a platform DanceTag has not been released on), they were enthusiastic about the app. A significant insight here was that they were initially more interested in finding friends and linking to each other than in immediately starting to dance.

A consistent response to the app among its various audiences was the prescription of music. It was not a surprise to the team that young people often asked if they would be able to use their own music. For both design and legal reasons this was not possible for DanceTag in its current form (see Insights). However, other players liked the provision of music. Heidi reported:

> 'The preloaded music lets you perfect your dance before you upload it. And you can re-record until you are happy with your dance.'

And Katy noted that the dancers she worked with really enjoyed the music – they found it a challenge because it was quite different to what they usually dance to so they had to really think about what movements to do; as you do not know what is going to come up you have to be on your toes.

Deryck Newland, PDSW's Artistic Director, sees DanceTag as a journey of learning and discovery, exploring the possibilities and potential of digital, mobile and social media to attract, engage, and retain wider participation:

'What's been really interesting for me is that it has personified our values as an organisation. We talk about being fresh, and being generous, and being inspiring, passionate and inclusive, and DanceTag delivers all of those things in spades. Because it's free at the point of use, it's absolutely open to everyone to use it, across demographics, and even across nations. And one hopes that it will begin to inspire people who may not have considered dance to engage in dance.'

"

It has personified our values as an organisation. We talk about being fresh, generous, inspiring, passionate and inclusive, and DanceTag delivers all of those things in spades.

Deryck Newland
PDSW's Artistic Director

App analytics

Reach

Since the start of the project, there have been 394 new users registered on iOS, and a total of 4,988 sessions. Looking at the Android version of DanceTag, there were 70 new users over the course of the study.

Figure 3 - Number of new users across iOS
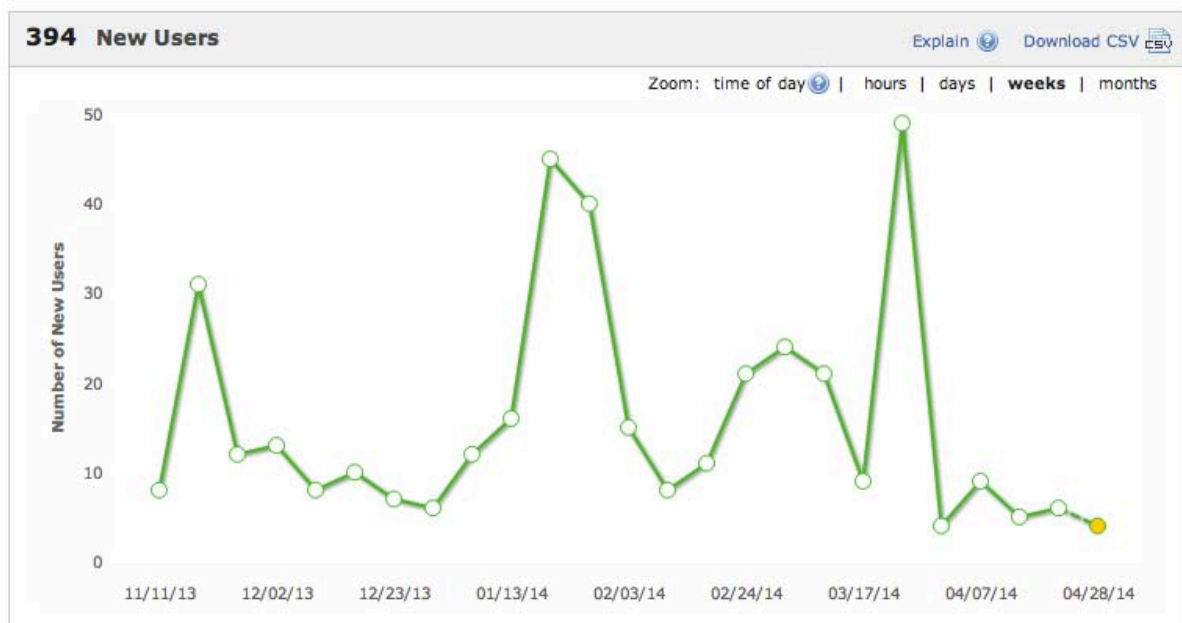
There are noticeable peaks and troughs across both platforms that correspond with organised marketing effects or events. The most notable was an event organised by Katy Leader called U: Dance Regional Platform, at the Tacchi Morris Arts Centre, where 32 new users and 310 sessions took place in one day.
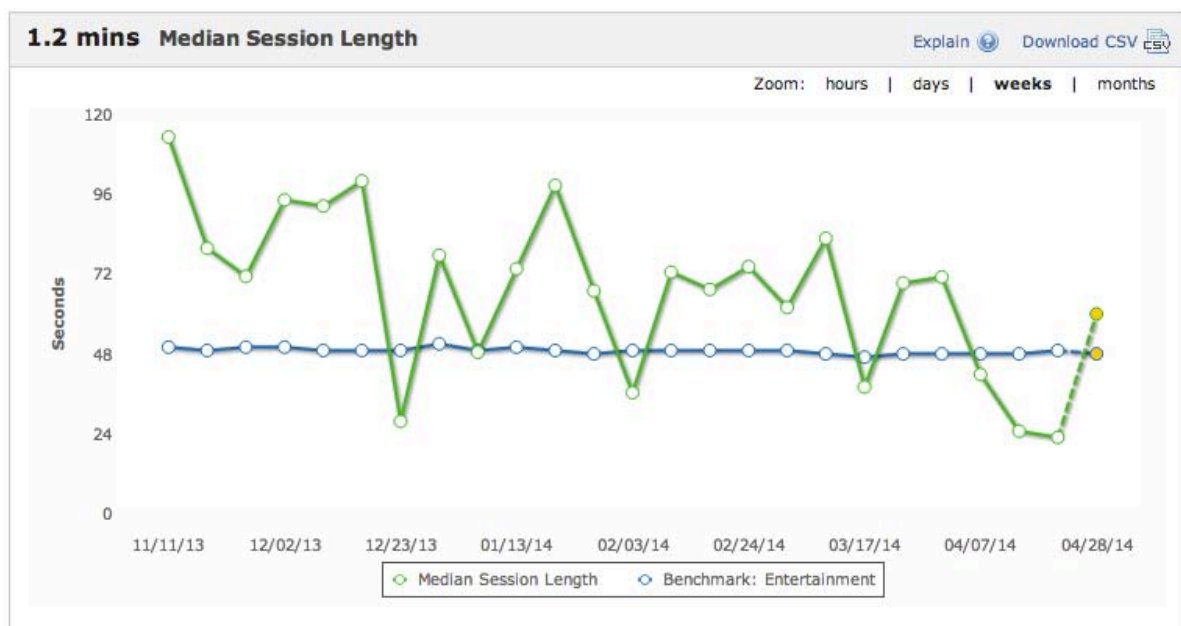
Figure 4 - Number of sessions on iOS
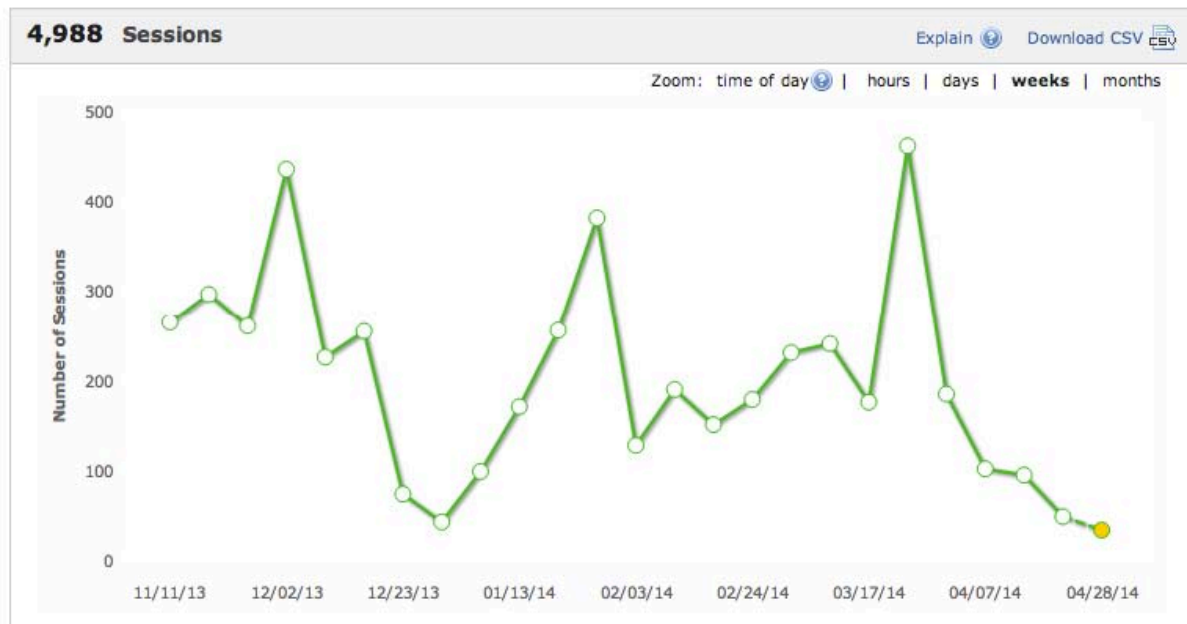
Usage

The median iOS session length was 1.2 minutes long, which exceeds the benchmark for entertainment apps of 48 seconds. The average session on Android was somewhat lower, at 32. 7 seconds.

Figure 5 - Median session length iOS

Uploads

Figure 6 shows the number of dances uploaded on the app. The number of uploads compared with the number of sessions suggests most users use the app to watch videos rather than for uploading dance.
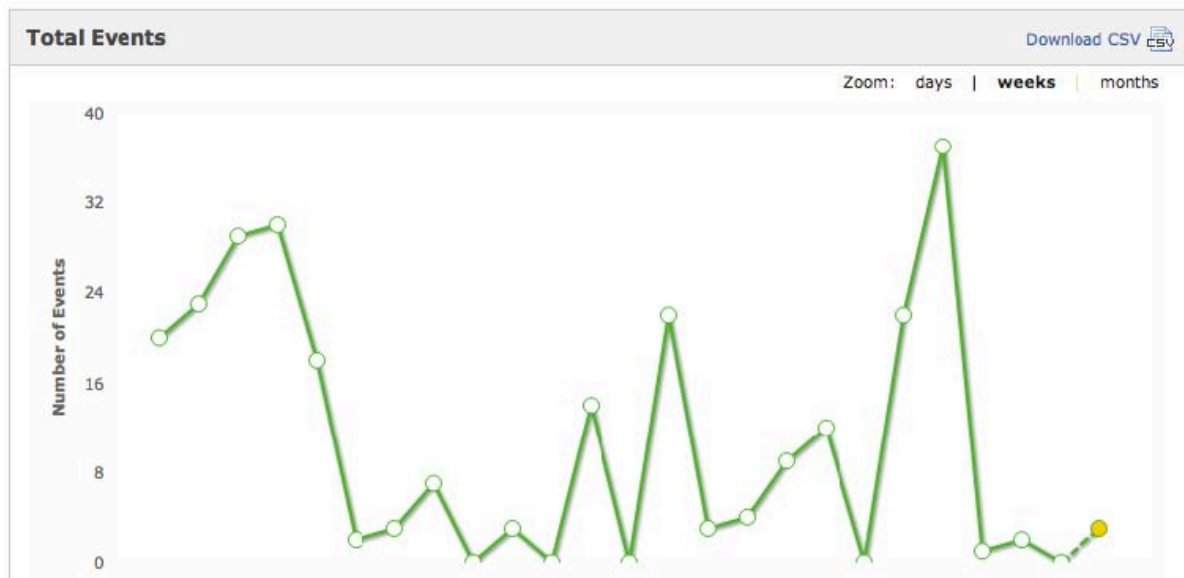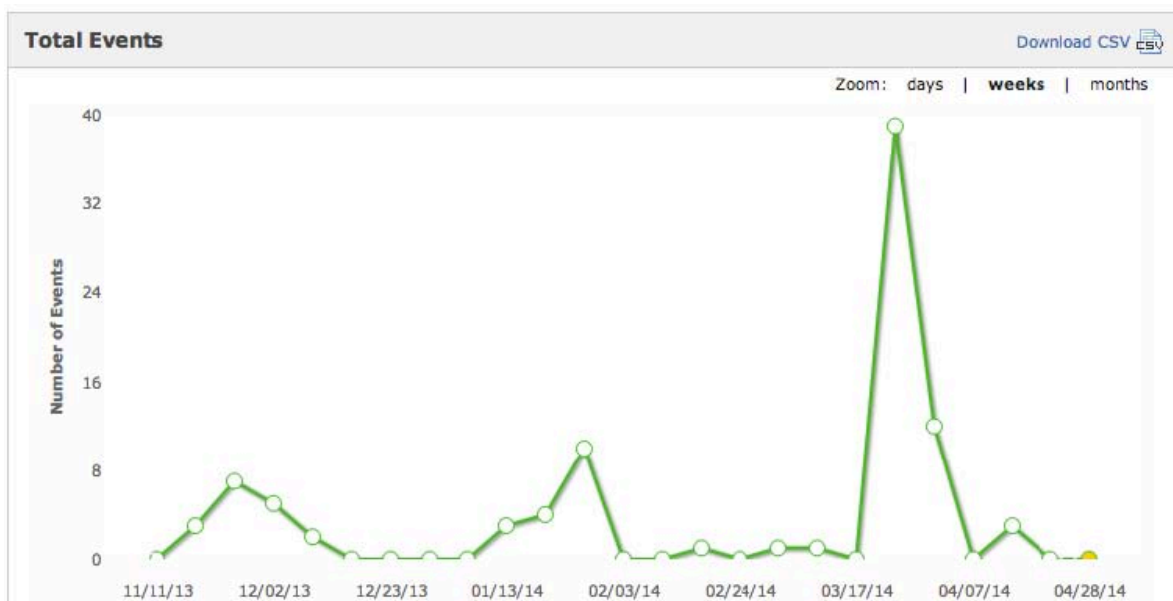
Figure 6 - Number of successful uploads

Digure 7 shows when the app crashed while trying to upload a dance. There was a considerable spike during the U: Dance event.
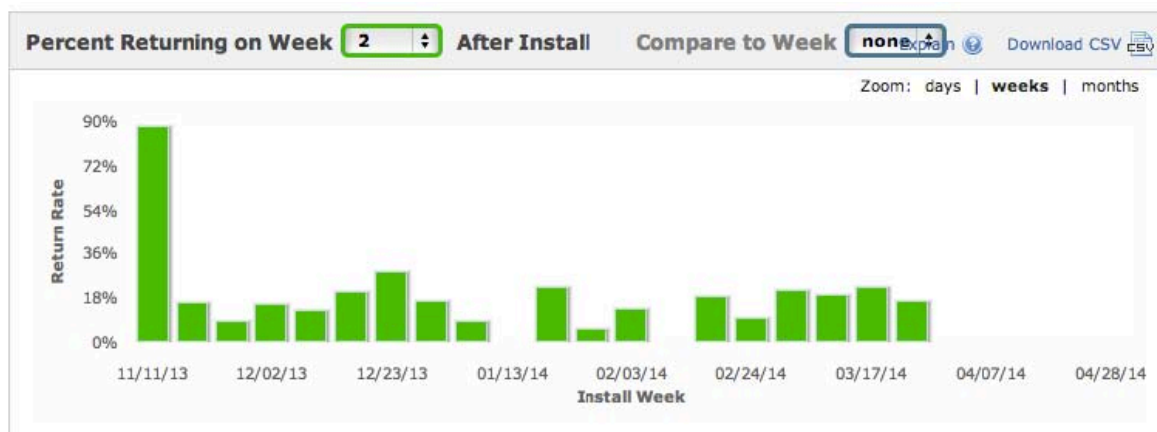
Figure 7 - Number of failed uploads

Retention

Smaller numbers of users accessed the app twice within a fortnight. On average 10–15% of users return to the app after two weeks, although this pattern may drop away after several months, while 20–30% of users return to the app up to 70 days after install, which is very high.

Figure 8 - Number of users returning within two weeks


Location

The vast majority (95%) of DanceTag sessions were from the UK, although there have been users in every continent except Africa. North America was the second largest user, with a number of dances performed in New York. Android analytics, which provide more detail on the geographic location of users, reveal that most users were located in Bournemouth and other areas throughout the South West, where PDSW is active.

Figure 9 - Top locations of usage

Region	Sessions	% of Sessions
Bournemouth	255	53.5%
Bristol	85	17.8%
London	46	9.6%
Plymouth	30	6.3%
Southampton	24	5.0%
Nottingham	9	1.9%
Poole	7	1.5%
Portsmouth	6	1.3%
Stockport	5	1.0%

Figure 10 - Websites visited by app users, November 2013 – April 2014
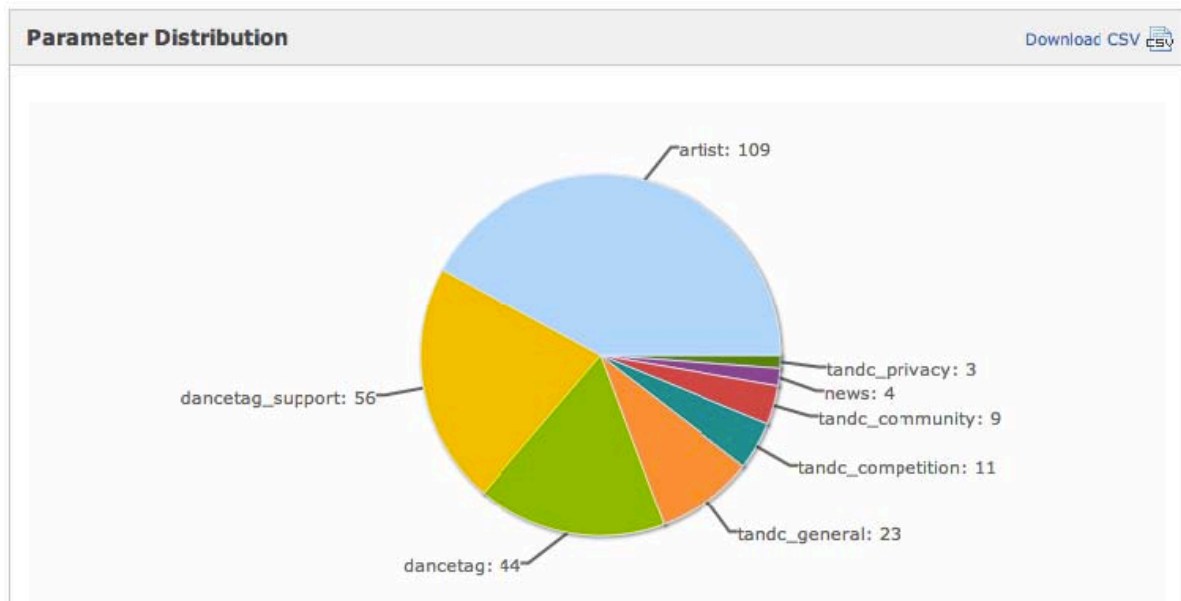
The majority of users who visited a website through the app clicked on the musician's link.

There were also a sizeable number of users linked to the support page, which suggests people may have experienced technical difficulties. These difficulties may have happened because of poor Wi-Fi/3G connection or a glitch on that kind of device.
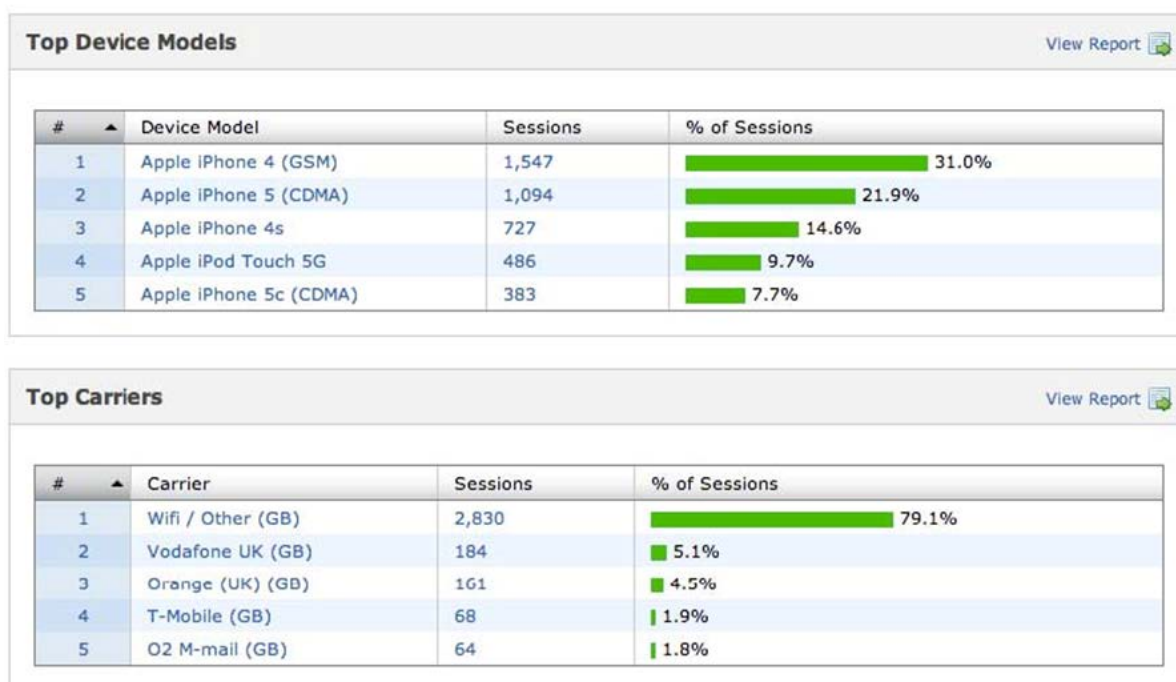
Devices and carriers

The majority of users use the iPhone 4, with Wi-Fi the most popular way to connect to the internet. The use of iPod Touch 5G is also interesting as this device does not have a camera.

Almost all Android users used Samsung Galaxies to play DanceTag, with the Samsung Galaxy S4 being the most popular.

Across both operating systems, most people used wifi to access the app rather than their mobile network.

Figure 11 - Top device models and carriers (iOS only)

Top Device Models   View Report

#	Device Model	Sessions	% of Sessions
1	Apple iPhone 4 (GSM)	1,547	31.0%
2	Apple iPhone 5 (CDMA)	1,094	21.9%
3	Apple iPhone 4s	727	14.6%
4	Apple iPod Touch 5G	486	9.7%
5	Apple iPhone 5c (CDMA)	383	7.7%

Top Carriers   View Report

#	Carrier	Sessions	% of Sessions
1	Wifi / Other (GB)	2,830	79.1%
2	Vodafone UK (GB)	184	5.1%
3	Orange (UK) (GB)	161	4.5%
4	T-Mobile (GB)	68	1.9%
5	O2 M-mail (GB)	64	1.8%

"

There are noticeable peaks and troughs across both platforms that correspond with organised marketing events.

Insights

Collaboration and working processes

Meeting face-to-face

Each team member found the monthly face-to-face meetings at Mobile Pie's Bristol offices crucial to forging relationships, sharing ideas and avoiding misunderstandings. The meetings were chaired by PDSW, but the partnership worked because everyone's contribution was valued and because of the regular, inclusive project-planning meetings. Shared attendance at events helped the team to bond as a group. These professional and personal relationships could quickly be picked up again if suitable opportunities/resources presented themselves.

The social and creative nature of the project meant that it was impossible to separate out technical and design decisions from the knowledge and testing of audiences. Of course this meant sharing quite different sets of knowledge, approaches and development processes. The experimental R&D nature of the project meant that none of the team was in their familiar comfort zone, so constant communication was essential.

Basecamp

The team also found that it was essential to have a central repository for project files, and an effective and accessible mode of communication and file-sharing among the project team. They adopted Basecamp as the project management tool, which was already used by Mobile Pie and Pervasive Media Studio.

User testing

Testing in public

The project's ethos from the start was to be agile, to test and iterate. Game developers usually test with other developers who are familiar with trying out graphically simple beta versions, whereas the DanceTag mechanic required community play-testing from the start. The app had to be publicly available and open to be properly tested – it could not be 'perfected' through small-scale beta-testing (as is the norm in game design) as its

gameplay was purely social. This laid it open to one instance of tendentious and mean-spirited attention, but on the whole public reception has been positive and user testing was valuable.

Timing of testing in relation to development

On reflection, the team felt they could have tested even earlier. This would have meant concentrating on only one platform, which would have constrained the early potential audience but enabled testing of key technical decisions (gameplay, music, scoring, etc.) early on.

The app launched with Friends, Challenges, and Competitions. It was soon apparent that Competitions were not appealing, and user testing revealed a much greater interest in finding and communicating with Friends. With an earlier working version this feedback would have enabled a design concentration on more popular features.

There is a balance to be struck between getting a working version out to people quickly but making it accessible and user-friendly enough to be appealing in play.

Design and technical challenges

Managing technical challenges within project timeline and budget

Technical constraints and affordances had a large impact on the design process, which were generally an inevitable result of essential features in the game. For example, it was central to the DanceTag concept that players would be able to upload videos to the app. For DanceTag to implement its own video storage system would have been impractical.
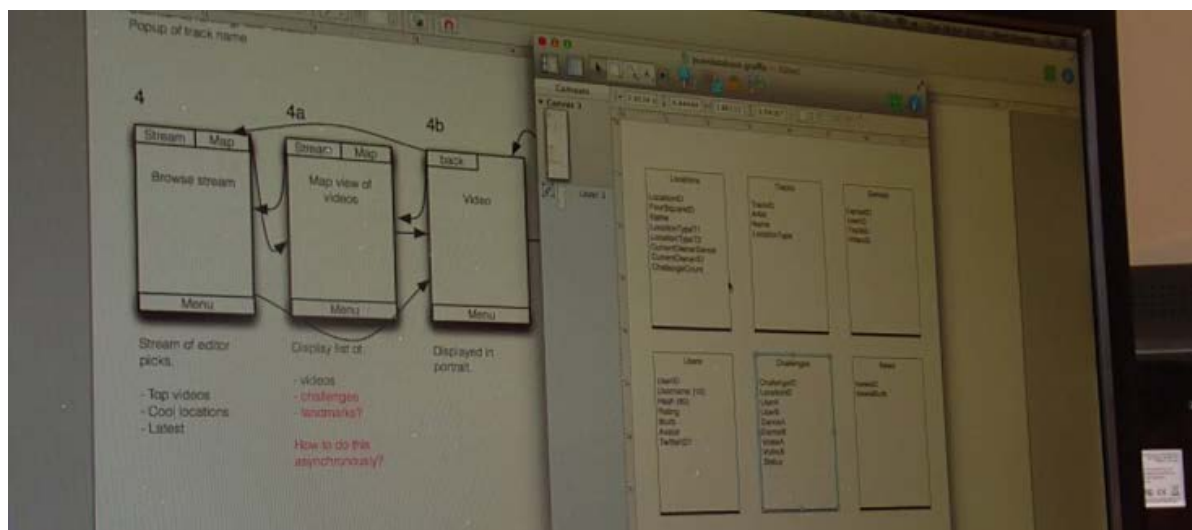
Wireframe design of DanceTag, from whiteboard sketch to implementation

Source: Mobile Pie 2013

Scoring using the community

On the design side a central challenge was that it was very hard to rate or score a dance. It was important that scoring was a community not an automated process so, again, a core strength of the game was also a big challenge. The team looked at many different ways of scoring using the community.

Use of music

As noted in the Results chapter, the question of music was frequently raised in play-testing, with some dancers keen to import their own music into the app. This would have opened up the app to different kinds of engagement but would have broken the game mechanic that relies on consistent music clips for Challenges. It would also have raised legal questions about the use of unlicensed music in uploaded videos.

The music aspect of the game was challenging. Musicians were invited to gain exposure through our website and on the app in return for allowing us to use 15 seconds of their work. In the end there were more musicians wanting to do this than there was time available to update the game with their music, but feedback from users reflected a desire to use a wider selection of music or to be able to use their own music. Discussions were also held with music development organisations in the South West about

enabling musicians to gain profile for their work on DanceTag, an area that could be explored further both with public and commercial companies and individual musicians. These experiences demonstrate that you cannot plan a widely available dance programme without really appreciating the importance of the music to inspire the dancer. However, further work would need to explore licensing and IP implications to open it up to dancers choosing their favourite music or even using it as a platform for emerging musicians.

Simplifying the game

In a future development of DanceTag, the game would be stripped back and made much simpler. Competitions would also be dropped as this had negligible entries and had been our principal way of linking physically with dance venues. Key elements that would be addressed in future versions of DanceTag include:

- Reduce the number of pages, or consolidate pages to reduce complexity

- Develop the social core of the game with tighter friends + news

- Allow significantly more music tracks, potentially enabling users to pick a track or search for a music type when they dance at an un-owned location

- Include a countdown prior to recording the video

- Enable uploading of pre-recorded video

- Include the ability to save a video after filming so there is no chance of it being lost due to poor connection

- Change the Challenge mechanism and/or leave Challenges up for longer until app gains traction

- Alter recording format to square as the current portrait mode is confusing for users

- Enable searching and sorting by username, location and tags.

Sharing data in remote areas

Though Mobile Pie did extensive testing across most devices and around their local environment, inevitably the beta testers highlighted cases they had not managed to cover. Since the core of the app relies on sharing large amounts of data remotely, this sometimes broke under combinations of devices and locations, which were different from what players had been able to test with. Again, this is largely unavoidable in mobile games: the app requires data connections across different networks that lie beyond the developer's control.

The app worked anywhere with a reliable Wi-Fi connection, but was dogged throughout by the unreliable nature of telephone networks in the wild. The solution was not anything technical – improving algorithms etc. – they were already using best practice – it was just about adding an extra layer of usability, to allow people to re-upload. This then required further explanation in the app, including why they did not want people to upload later, from home, as this would ruin the location-based dynamics of the game. Throughout the design process, balances had to be found between technical constraints and player freedom.

These are all unavoidable challenges for any location-based app but are worth considering from the outset of any such project.

Audience engagement

Building sufficient audience engagement

The role and nature of communication with, and generation of, an audience within an R&D project of this type has been a central concern. The game proved popular and successful in dance environments and events but not in the public forum. To generate an audience beyond this face-to-face initiation, however, is a daunting challenge. Games on the App Store and Google Play sites are pushed to the top by their popularity, and then because they are the first apps a customer sees and are therefore more likely to be downloaded. This results in a relatively small number of apps (usually supported by substantial marketing resources) reaching a wide audience and tens of thousands of others fighting for attention lower down the web pages.

At the outset we believed that DanceTag would be perfect to launch at music festivals but it quickly became apparent that good Wi-Fi/3G connectivity was needed, but as most festivals are held in fields proper use of DanceTag would have been technically impossible.

DanceTag was a potential tool for dancers/dance organisations to use but it was very difficult to translate the virtual connection with it to an increase in engagement and participation with dance organisations. What it did achieve was to challenge effectively the creativity of dancers, enable them to create new work quickly, see what their dance looked like and explore the relationship between their dance and location. These elements were appreciated by the youth-dance leaders.

Timing of marketing in relation to technical development

PDSW feel that further technical development would be needed to ensure good performance of the game before investing significant resources in marketing or promotion activities. Mobile Pie's experience in this area is that there is no simple or assured way to achieve a viral game or app. They suggest that the strategy is as much about reacting to any community that springs up as targeting demographics through advertising or social media. This is a key insight for any creative or cultural work in social media. It is a chicken and egg dilemma: to attract users, an active online community is needed. Further research would be needed to explore how creative virtual communities develop. They are clearly not something that can be forced, and even extensive marketing cannot guarantee success.

Impact on dance networks

In terms of the impact of DanceTag on the dance world, the app has been discussed in dance/digital forums and was a catalyst for the creation of the Augmented Dance network, which UWE/Guerilla Dance have plans to develop further; and there are other dance digital apps available in 2014 that have similarities to DanceTag.

What is definite is that the process has influenced those of us involved. Joe Ryan is now resident at Blast Theory, developing two other place-based digital games. Seth Giddings/UWE are developing the Augmented Dance network and publishing/presenting papers based on the research. PDSW has since gone on to use Augmented Reality and create a dance digital game for

a children and young people's programme with libraries (see
www.stepintoabook.org.uk), and is committed to considering what is next
for DanceTag. What is indisputable is that DanceTag provided
entertainment, pleasure and interest to the young people who used it.

Research challenges

Collaborative R&D is inherently different from other forms of academic research

The collaborative nature of the DanceTag project meant that research
insights were generated across the team's activities and their findings and
feedback on user engagement, design and technical development. User
testing and ethnographic research overlap and inform each other, and many
of the results and insights detailed in this report have become the object of
research for Seth.

Allocating resources for ethnographic analysis

Even a half-hour meeting and discussion with the team can generate a
wealth of ethnographic material. It is important to factor in time to log and
analyse this material as well as to gather it.

It became apparent that technical, cultural, and creative decisions in digital
game design are completely entangled. Seth has been particularly interested
in the ways in which cultural decisions, the ideas the team have for what
they want the end product to be, and what they want dancers and young
people to do with the app, are all configured through design and technical
decisions, but that these in turn shape the cultural decisions. Apparently
simple things like the length of the video or choice of music fundamentally
shape what a future audience can do.

Early decisions on choice of technology and platform were informed by the
desire to reach a certain audience, and subsequently shaped and configured
both the development of the app and the dances and other playful activities
it generated. Media research tends to study the finished artefact and its
audience, whereas a collaborative R&D project like DanceTag offers a unique
insight into production and design of technology and audience.

"

The app worked anywhere with a reliable Wi-Fi connection, but was dogged throughout by the unreliable nature of telephone networks in the wild.

Future

Future for the partners

PDSW

PDSW have appreciated the chance the R&D process has given them to be part of the digital innovation discussion and the industry profile, and to gain access to different platforms. It has diversified the digital element of their work and smashed the boundaries of what they thought possible. DanceTag and digital development are now built into their forward business planning. However, it took up a large amount of the regional producer's time, far more than anticipated, and would necessitate a far higher production budget being allocated to future work. It was also important to the organisation that this initial research phase was held internally rather than outsourced to freelancers as it has contributed to organisational learning and the commitment to take on future digital challenges. However, further development would probably be led by a digital producer and, preferably, a dance digital producer!

Mobile Pie

For Mobile Pie, the project provided the opportunity to experiment with technical and creative features that would have been difficult to explore within their usual commercial projects. It increased their knowledge of working with Cloud services, particularly processes for video, and provided lessons about the possibilities and challenges of social/community game play and mechanics. The insights and expertise gained in social gameplay, Cloud development and social-media platform use will inform future games design and development.

DCRC

For Seth and the DCRC, the project generated substantial empirical and conceptual material and will fuel research output for some time. Immediate outcomes include two journal papers, one on researching mobile game design through production ethnography (for submission to *Ubiquity* or *Convergence*) and the other on mobile players' experience of geographical, virtual and social space in phone app/games. Seth has given a talk on the

project's progress at the Pervasive Media Studio in Bristol, and was invited to present on the project at an Institute of Education symposium on embodiment in digital gaming in July 2014. Using his DanceTag ethnography, this talk described how design, marketing, and cultural and technical decisions are tightly interwoven in the design of mobile media and help 'configure' the ideal or anticipated users of apps and games. As a direct result of DanceTag, Seth co-organised a workshop at the Studio with Laura Kriefman of Guerilla Dance. Titled Augmented Dance, this brought together dancers, technologists and academics, and it is hoped it will be the beginnings of a research and practice network with projects and events to follow. Experience of this creative/technological collaborative research helped Seth to win a REACT prototype bid for the development of a robotic game platform.

Future of playful mobile platforms

The project's findings offer useful data on cost, timescale, marketing challenges and the potential impact of social media and game apps for arts institutions.

DanceTag enabled some compelling experiences for users, but engagement was highest within the context of structured events with groups of young dancers.

Gaming apps present a number of design and technical challenges, which require time and resources to fully resolve.

Arts organisations need to be realistic about the market size and appetite for novel concepts and, in particular, any expectations of flow-on impacts from initial engagement. Building awareness and a compelling 'hook' for audiences to download apps is a significant marketing challenge, which is complicated by timelines for testing, release and bug fixes.

Those seeking to explore such goals should proceed with caution, conduct market testing and user co-design exercises as early as possible, and commit to developing and refining the concept/product across a multiple year programme.

All the products of this experimentation are now available for other organisations embarking on similar projects, from the insights collated in this

report to DanceTag's innovative application of software and social-media platforms. The Intellectual Property in the project is the brand 'DanceTag' and the icon and title have been trademarked.

Regarding whether or not to release the work on an open source, Richard from Mobile Pie says,

> 'It's not something I'd recommend, there's less value in projects going open source than tools or plugins. If there was one particular piece of tech that could be re-used in other, different projects then that would be a good idea – but there is nothing technically innovative about the project, rather, it was the idea of bringing dance, location and gameplay together.'

As the R&D phase ends, the PDSW team are taking a pause and reflecting on the learning and outcomes before deciding whether to take it forward to a second stage and redesigning/testing DanceTagv2. Two uses that may provide potential for further exploration are:

1   Vehicles for animating towns/cities through dance

2   Tools for youth-dance leaders.

To work on a redesign of DanceTag in response to this research will require new sources of funding and a robust business plan. Deryck says,

> 'The Digital R&D programme has really got us thinking as an organisation. It's begun a journey for us that I think will continue now into the long term. Digital applications are very much the way we can access people we wouldn't normally be able to access. For us, that's really important. For example, it enables people we could never reach through our venue, or even our outreach activity, to potentially engage with us. Also, it blurs the boundary between your audience and your participants or makers, and I think that has really exciting possibilities for the future.'

"

The Digital R&D programme has really got us thinking as an organisation. It's begun a journey for us that I think will continue now into the long term.'

Further Resources

Project partners

Pavilion Dance South West: pdsw.org.uk

Mobile Pie: mobilepie.com

University of the West of England: uwe.ac.uk

Digital Cultures Research Centre: dcrc.org.uk

Pervasive Media Studio: pmstudio.co.uk

DanceTag: dancetagapp.com

Video, audio and web documentation of the project

PDSW commissioned video interviews with the team: vimeo.com/94726074

DanceTag interviewed at the AHRC Creative Economy Showcase 2014: youtube.com/watch?v=HdmePeGeXXE

Arts council podcast/video interview with Seth and Richard about the Digital R&D Fund: youtube.com/watch?v=ydMG5UnQ_YY

Richard interviewed for the Digital R&D magazine, *Native*: native.artsdigitalrnd.org.uk/features/dancing-with-technology-mobile-pies-richard-wilson-talks-about-dancetag/

Seth interviewed for article on AHRC website: ahrc.ac.uk/News-and-Events/Features/Pages/Lets-Dance.aspx

Seth's ongoing blog on DanceTag, digital play, mobile media, play-testing, etc.: microethology.net/dancetag

The Pervasive Media Cookbook: pervasivemediacookbook.com/

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Giddings, Seth (2009) 'Events and collusions: a glossary for the microethnography of videogame play', *Convergence* 4(2), eprints.uwe.ac.uk/8359/

Hjorth, Larissa (2011) 'Mobile2game cultures: the place of urban mobile gaming', *Convergence* 17(4)

Richardson, Ingrid (2011) 'The hybrid ontology of mobile gaming', *Convergence* 17(4)

Woolgar, Steve (1990) 'Configuring the user: the case of usability trials', *The Sociological Review*, Vol. 38 (S1), 58–99

Related projects

dancexchange.org.uk/production/spill

guerilladanceproject.com/

From the Digital R&D project:

CulturApp: location-aware mobile app for cultural institutions
artsdigitalrnd.org.uk/content/culturapp-%E2%80%93-piloting-location%E2%80%93aware-mobile-application-cultural-institutions

Dance Digital
native.artsdigitalrnd.org.uk/projects/dance-digital/

Yorkshire Dance
native.artsdigitalrnd.org.uk/projects/yorkshire-dance/

Glossary and Abbreviations

3G	Mobile technology allowing devices to access the internet wirelessly
AHRC	Arts & Humanities Research Council
Android	An open-source operating system used for smartphones and tablet computers
App	A self-contained program or piece of software, especially as downloaded by a user to a mobile device
Basecamp	A project management tool
Beta (app)	A version of a piece of software that is made available for testing
Console	a panel or unit accommodating a set of controls
DCMS	Department of Culture, Media and Sport
DCRC	Digital Culture Research Centre
Google Play	Android Market online store for purchasing and downloading apps, music, books, movies and similar content
iOS	Operating system used for mobile devices manufactured by Apple Inc.
IP	Intellectual Property
Microsite	A small auxiliary website designed to function as a supplement to a primary website
PDSW	Pavilion Dance South West
REACT	Research & Enterprise in Arts & Creative Technology
SYDC	Somerset Youth Dance Company
UWE	University of the West of England
Wi-Fi	Facility allowing devices to connect to the Internet wirelessly

Acknowledgements

Appendices

Appendix A: Detailed budget

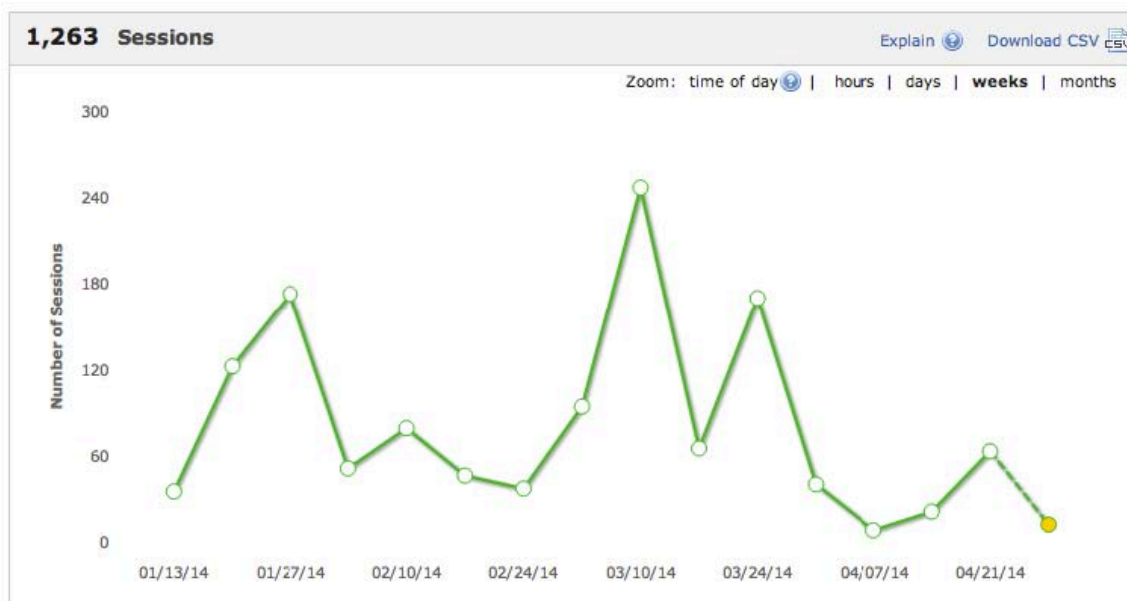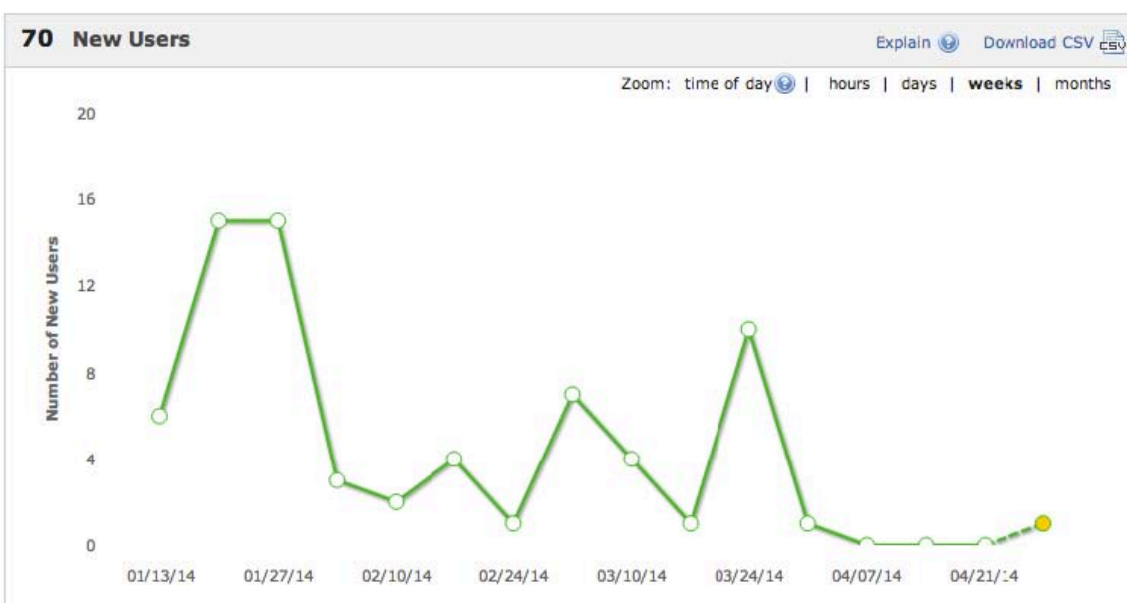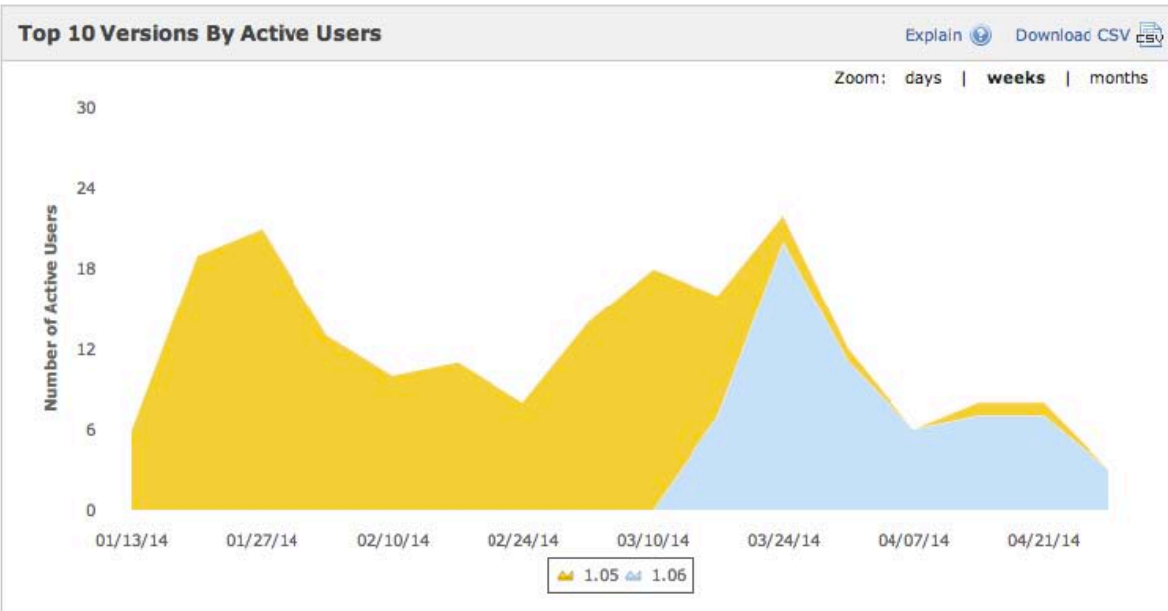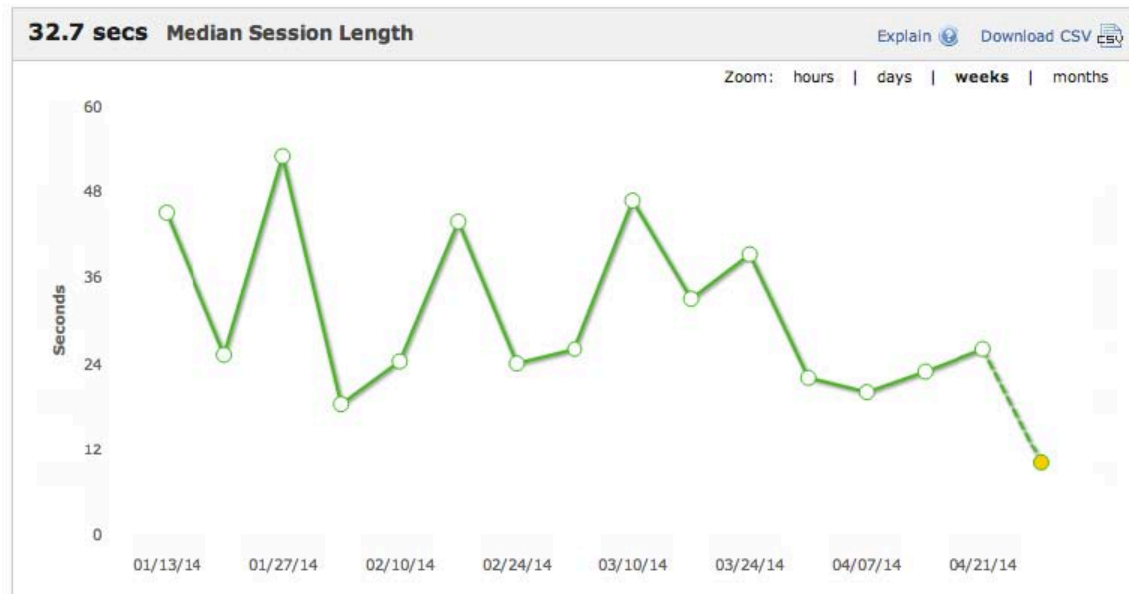| Item	Budget	Actual	Notes
PDSW project management	13,000	20,000	Leading DanceTag took a great deal more time than anticipated and there were additional new tasks such as na legal frameworks (terms and conditions of use, user info, competition rules, trademarking). In addition, we took DanceTag totrade fairs and conferences to let people know about it and get feedback. We also extended the programme in order to allow it to be tested longer in the public forum
Community manager	12,404	13,200	The community manager's contract was extended with the extended programme
PR coordinator	7,500	8,300	The PR coordinator's contract was extended with the extended programme
Development of app & website, inc. VAT at 20%	42,000	42,000	Fixed cost with Mobile Pie
Marketing inc. VAT at 20%	6,000	1,200	The underspend was re-allocated to work through live networks rather than promotion through app stores or other virtual methods
Ongoing costs (e.g. hosting/server charges), inc. VAT at 20%	6,000	6,000	Fixed cost with Mobile Pie
Updating app, inc. VAT at 20%	6,000	6,000	Fixed cost with Mobile Pie
UWE research for 57 days	22,020	22,020	Fixed cost with UWE
Travel/accommod-ation	3,000	1,492	Some of the costs for travel/accommodation were absorbed through organisations' core costs
Contingency @ 5%	5,896	3,584	These costs included trademarking, legal advice, making a film and attending conferences/exhibitions. The underspend was re-allocated to allow people to spend longer on promoting the programme
Total	**123,820**	**123,796**	

Appendix B: Further analytics – iOS
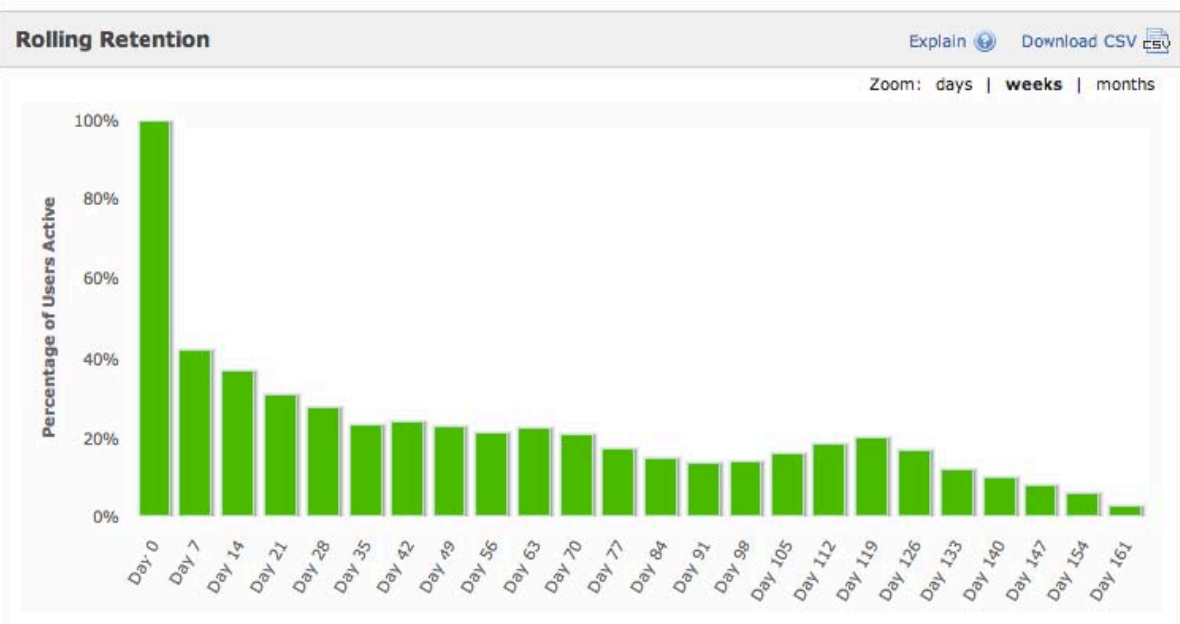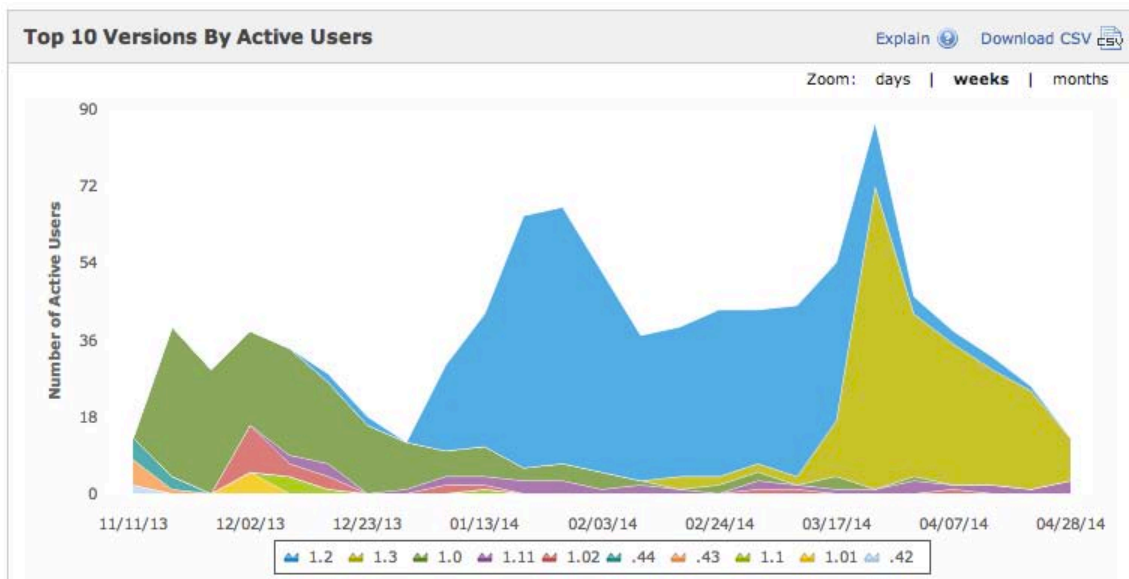
Detailed View   Explain ⓘ   Download CSV 📄

Region	Sessions ▼	% of Sessions
Europe	4,795	96.3%
North America	131	2.6%
Asia	18	0.4%
Oceania	15	0.3%
Middle East	15	0.3%
South America	4	<0.1%
Central America	2	<0.1%
Africa	0	0.0%

Appendix C: Further analytics – Android
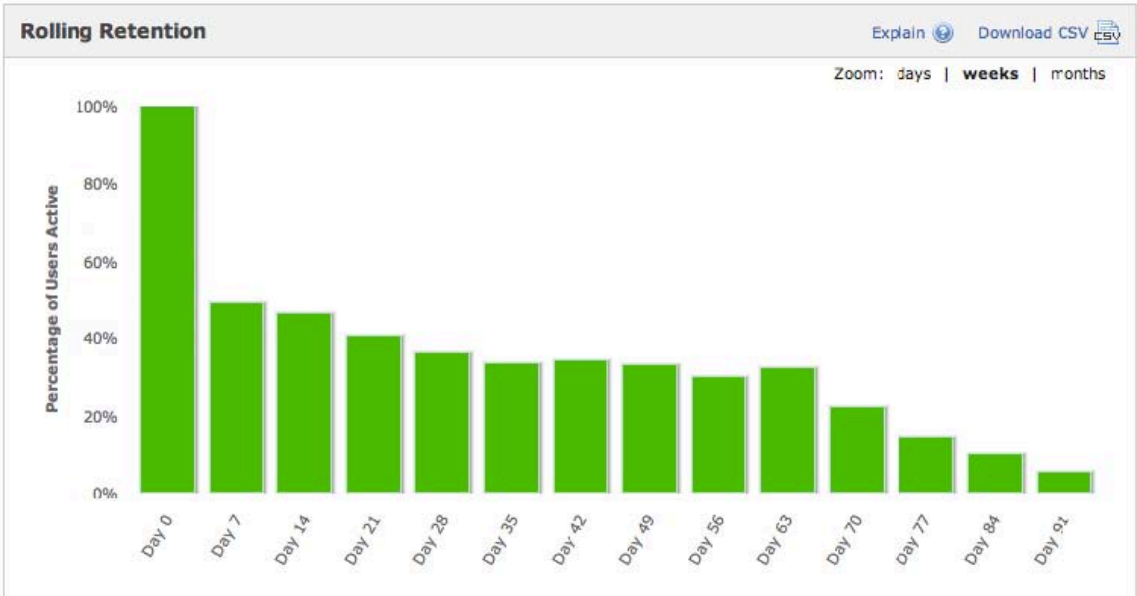
32.7 secs Median Session Length

Explain ⓘ Download CSV

Zoom: hours | days | **weeks** | months

Top 10 Versions By Active Users

Explain ⓘ Download CSV

Zoom: days | **weeks** | months

1.05 1.06

Percent Returning on Week [2 ▼] After Install   Compare to Week [none ▼] Explain ⓘ Download CSV

Zoom: days | **weeks** | months

Rolling Retention

Zoom: days | **weeks** | months

Region	Sessions	% of Sessions
Bournemouth	255	53.5%
Bristol	85	17.8%
London	46	9.6%
Plymouth	30	6.3%
Southampton	24	5.0%
Nottingham	9	1.9%
Poole	7	1.5%
Portsmouth	6	1.3%
Stockport	5	1.0%
Reading	3	0.6%
Blackpool	2	0.4%
West Bromwich	1	0.2%
Stoke-on-Trent	1	0.2%
Liverpool	1	0.2%
Dudley	1	0.2%
Birmingham	1	0.2%
York	0	0.0%
Wolverhampton	0	0.0%

Top Device Models

#	Device Model	Sessions	% of Sessions	
1	Samsung Galaxy S4 Mini	296		23.4%
2	Samsung Galaxy S4	248		19.6%
3	Samsung Galaxy S III	243		19.2%
4	Sony Xperia SP C5303	63		5.0%
5	Samsung Galaxy S3 Mini	54		4.3%

Top Carriers

#	Carrier	Sessions	% of Sessions	
1	Wifi / Other (GB)	391		56.9%
2	Orange (UK) (GB)	181		26.3%
3	Wifi / NTL (GB)	54		7.9%
4	Carphone Warehouse (GB)	25		3.6%
5	T-Mobile (GB)	17		2.5%