## Background

The broad topic of Pervasive Media refers to new media forms in which the public contributes as well as consumes content, is available anytime and anywhere, and is ever more deeply interwoven into our daily lives.

Pervasive media first emerged as a focus for new cross-disciplinary research at Nottingham from a series of informal discussions between leading academics across the University. Recognising the exciting potential of this topic, the University’s Research Committee formally established the Pervasive Media Group in 2006, awarding a pump-priming grant which, with the support of the HSSRC’s Research and Business Development team, enabled the group to organise a series of more formal networking events at which colleagues from across the university led discussions, introduced research papers and ran workshops. The result was a new research network that has since grown to include academics from Computer Science, the Centre for Geospatial Science, English Studies, Geography, History, Classics, the Business School, Modern Languages and Cultures, and Film and Television Studies.

## Towards Pervasive Media

In 2009 the Pervasive Media Group secured £200K of pump-priming funding from EPSRC, under the Cross-Disciplinary Feasibility Account programme. ‘Towards Pervasive Media’ is the resulting initiative which aims to foster collaborations between the Arts, Humanities, Computer Science and Engineering at Nottingham.

The first phase involves a series of [troubadour studies, residencies and makefests](file:///C:\Documents%20and%20Settings\lqzap1\Local%20Settings\Temporary%20Internet%20Files\Content.Outlook\BRU0G84P\Towards%20Pervasive%20Media%20Scheme%20Mechanisms.docx) held over 6 months in order to catalyse and generate seed ideas for projects. The best of these will then be carried forward into a single [sandpit event](file:///C:\Documents%20and%20Settings\lqzap1\Local%20Settings\Temporary%20Internet%20Files\Content.Outlook\BRU0G84P\Towards%20Pervasive%20Media%20Scheme%20Mechanisms.docx) which will generate a portfolio of [feasibility projects](file:///C:\Documents%20and%20Settings\lqzap1\Local%20Settings\Temporary%20Internet%20Files\Content.Outlook\BRU0G84P\Towards%20Pervasive%20Media%20Scheme%20Mechanisms.docx) to be carried out over the final six months of the project. The project will culminate with a [showcase event](file:///C:\Documents%20and%20Settings\lqzap1\Local%20Settings\Temporary%20Internet%20Files\Content.Outlook\BRU0G84P\Towards%20Pervasive%20Media%20Scheme%20Mechanisms.docx). It is hoped that ideas generated as part of this programme will go forward into funding proposals that might ultimately attract research council funding. Although the themes are shown as running independently, the parallel nature of the programme enables cross-theme explorations.

## How funding is administered

Towards Pervasive Media is run by Lisa McCabe ([lisa.mccacbe@nottingham.ac.uk](mailto:lisa.mccacbe@nottingham.ac.uk)), Bridging Officer for Towards Pervasive Media and supported by Samantha Stapleford ([Samantha.stapleford@nottingham.ac.uk](mailto:Samantha.stapleford@nottingham.ac.uk)). A Management Committee meets monthly to oversee the running of the programme and is made up of the Investigator team and members of CAS, (Svenja Adolphs, Steve Benford, Sally Bowden, Ronald Carter, Paul Grainge, Jonathon Hale, Mike Jackson, Gary Priestnall, Roberta Pearson and Lisa McCabe). The management committee reports to a steering group which meets quarterly.

## March 2010 Update

The management Committee is in the process of awarding Troubadour Grants and hopes to announce a decision by March 31st. Applications for [Residencies](file:///C:\Documents%20and%20Settings\lqzap1\Local%20Settings\Temporary%20Internet%20Files\Content.Outlook\BRU0G84P\Towards%20Pervasive%20Media%20Scheme%20Mechanisms.docx) are currently being received, with a 22nd March 2010 deadline. Ideas for [makefests](file:///C:\Documents%20and%20Settings\lqzap1\Local%20Settings\Temporary%20Internet%20Files\Content.Outlook\BRU0G84P\Towards%20Pervasive%20Media%20Scheme%20Mechanisms.docx) can be emailed to Lisa McCabe ([lisa.mccacbe@nottingham.ac.uk](mailto:lisa.mccacbe@nottingham.ac.uk)) or Samantha Stapleford ([Samantha.stapleford@nottingham.ac.uk](mailto:Samantha.stapleford@nottingham.ac.uk)) with a 13th April deadline.

Should you wish to discuss ideas informally please contact either Lisa McCabe or a relevant theme leader.

## Towards Pervasive Media Themes

Discussions to date within the Pervasive Media Group have identified three overarching research themes where the arts and humanities can collaborate with computer science and engineering to address exciting cross-disciplinary challenges while also feeding back into the core disciplines. We foresee significant flexibility around these themes and will be open to discussion of new topics and ideas providing that they fit within the overall topic of Pervasive Media. Each theme will be championed by theme leaders who will encourage colleagues to engage and act as points of contact for potential applicants.

## Theme 1: Meaningful context for both humans and computers.

Theme leaders: Professor Ron Carter (School of English Studies), Dr Svenja Adolphs (School of English Studies) and Professor Mike Jackson (Division of Infrastructure and Geomatics). A longstanding and difficult challenge for pervasive computing lies in creating ‘context-aware’ applications that can adapt to their context of use, for example to their user’s location, schedule, activity, mood, and to the presence of others. Current technical approaches involve capturing, fusing and analysing multiple streams of sensor data so as to construct computational models of context that can be directly interpreted by computers. Missing, however, are natural language descriptions of these different facets of context that would enable these models to also be interpretable by humans using their own terms. This theme aims to bring together expertise in English and Linguistics on the coding and analysis of natural language with research into the fusion and analysis of contextual sensor data to create a new approach to modelling context in a way that is interpretable by computers and humans, enabling a rich dialogue between the two and inspiring a new generation of more responsive, understandable and controllable context-aware applications. In parallel, this theme will also address a fundamental challenge from English and Linguistics in systematically understanding how our language varies from one context to another according to changes in environment, channels of communication, and social context of human interaction.

## Theme 2: The production and consumption of pervasive entertainment.

Theme leaders: Professor Roberta Pearson and Dr Paul Grainge (Institute of Film Studies, School of American and Canadian Studies). From innovative dramas such as Dr Who, to cross-platform games, to coverage of sports, festivals and major news incidents, we are witnessing the emergence of new forms of entertainment that combine diverse media and devices to create ‘always on’ pervasive media experiences. The advent of digital media has already enabled media companies to expand their programme’s narratives and promotional materials across multiple platforms while also creating entry opportunities for entrepreneurs to explore new forms of entertainment. This landscape has been further complicated by the arrival of Web 2.0 technologies that enable amateurs to create and circulate their own media texts, blurring the lines between producers and creators in the figure of the prosumer. These pervasive media forms raise new research challenges: How can we understand and design their narrative structures? How do people intertwine them with the patterns of their daily lives? and what business models can support their future commercial development? This theme will draw on expertise in Film and Television Studies and existing industry links to investigate, for example: the ways in which established media companies such as the BBC are devising cross-platform content and availing themselves of social networking sites; small creative groups at the leading edge of pervasive media are striving to break into the industry; and amateurs are themselves creating and distributing content. These explorations will inform the development of future platforms, authoring tools and interaction techniques and also contribute to new theories of film, television and new media.

## Theme 3: Curating the Landscape – Museum, City, Country, Community.

**Theme leaders: Dr Gary Priestnall (School of Geography), Dr Jonathan Hale, (School of the Built Environment) and** Professor Mike Jackson. The use of location-based technologies to create ‘mediascapes’ in which digital media are attached to physical landscapes has the potential to transform our experience of the everyday world in domains as diverse as tourism, education and games. However, the widespread adoption of mediascapes beyond is limited by a lack of understanding of how digital media can best be mapped onto their physical counterparts and how the ‘curatorial voice’ can guide the viewer to successfully contextualise digital media as part of an overall experience. Moreover, we need to gain these understandings across a range of sites and spaces, from indoor settings such as museums, to the outdoor environments of city, countryside, and wilderness. We also need to connect our insights into the nature of mediascapes to the particular subjectivities of viewers and users and to comprehend the range of cultural factors that shape perceptions and experiences among different communities, drawing on research into migration, identity and social cohesion. This theme will foster new collaborations with researchers from Geography, Architecture, History and Classics (including Nick Baron and Katharina Lorenz) who bring new perspectives on these issues and settings. Feasibility projects might explore questions such as: to what extent can heritage information be delivered to people to engage them in a meaningful way? How do people contextualise this information in terms of both their physical and cultural location and their relationship with the ‘curatorial voice’? and how do people construct knowledge from various types of media in a particular context? The results will inform the development of location-aware applications, distributed platforms, and interfaces and lead to new understandings within the arts and humanities of how individuals and social groups experience the landscape.