

Institution: Sheffield Hallam University

Unit of Assessment: 36 Communications, Cultural and Media Studies, Library and Information Management

a. Overview

This submission describes the work of the Communication and Computing Research Centre (CCRC), which was established in 2004 as a multidisciplinary and interdisciplinary research centre. The CCRC is dedicated to analysing and evaluating the design, production, use and consumption of communication artefacts. Its activities are underpinned by a commitment to conduct and apply research on information, communications and media from relevant social and technological perspectives. The CCRC sits alongside the Art and Design Research Centre (ADRC) in the Cultural, Communication and Computing Research Institute (C3RI). The cognate contributing disciplines to the CCRC are Communication Studies, Computing, Education, English, Film Studies, Information Systems, Media Studies, and a variety of social science subjects: Criminology, Politics, Psychology, Sociology and Social Policy. This reflects the breadth and interdisciplinary nature of the CCRC's research agenda, which is organised around three core research themes: 'Interactive Technology Design', 'Institutions, Texts and Representation', and 'Cultures, Identities and Social Issues'.

b. Research strategy

Strategic goals set out in our UoA 37 and 66 narratives for RAE 2008 emphasised commitments to: sustaining the growth, ensuring the financial viability, widening the scope and improving the quality of our research base; expanding external research collaboration; and consolidating the core themes by which our work is organised. We have sought to achieve these commitments by applying three principal forms of investment, which are briefly explained below and in greater detail in sections c. d and e:

- (i) Allowing colleagues remission from other duties to develop publications, prepare bids and attend conferences. Since January 2008, around 30 research support funding allocations each year (an average total of approximately £100k per annum) have been distributed to CCRC staff. We estimate that such allocations enabled colleagues to realise some 63% of the outputs submitted here, make 26 external grant applications (of which eight were successful), and present papers at 60 academic conferences.
- (ii) Investing in Early Career Researchers (ECRs) and colleagues hoping to embark on or reinvigorate research careers. This annual funding regime has been prioritised in such a way as to encourage the progress of less experienced researchers not previously entered in previous RAEs (e.g. Andrews, Bassi, Day, Mallett and Shin) and to support seven ECRs (Canter, Deller, Hogg, Jeffery, Kilby, Ibrahim and Slater). We also funded the permanent recruitment of two erstwhile PhD students as Research Assistants, with a view to retaining their unique research expertise and capturing future publications.
- (iii) Strengthening underpinning infrastructural support. The CCRC's commitments to ensuring growth, forging external alliances and enhancing financial viability are further reflected in a strengthening of research infrastructure. Staff involved in the preparation of grant applications are routinely supported by one of the specially appointed Research Assistants mentioned immediately above (see REF 3a for corresponding support for Knowledge Transfer activities). Complementary support is provided by an administrative team which has grown from 5.5 to 6.8 fte since 2008.

Combinations of internal funding and grant income have been used to provide the financial and administrative support required as our research activity and networks have expanded via the creation of local, national and international alliances. Prominent examples of this are: involvement in the South Yorkshire Collaboration for Leadership in Applied Health Research and Care (CLAHRC-SY) 'User Centred Healthcare Design' project which combines the knowledge and expertise of CCRC specialists in Interactive Technology Design with that of NHS researchers to develop and promote innovative approaches to healthcare design; and the Centre of Excellence in



Terrorism, Resilience, Intelligence and Organised Crime Research (CENTRIC) initiative, a 'subcentre' of the CCRC, established in 2013, evolving from a succession of major FP7 grants, which promotes collaboration and dialogue between CCRC academics and researchers, law enforcement agencies and other stakeholders from Europe (e.g. the European Police College, 'CEPOL') and North America (e,g. the government-sponsored Critical Incident Advisory Centre at the University of Virginia). Areas of interest include 'terrorism', computer hacking, social movements, forensics, social media and public order.

Such activity reflects and enhances the CCRC's three core research themes, which may be summarised as follows:

- (i) Institutions, Texts and Representation: This incorporates research on: film, such as Hall's studies of 'epics, spectacles and blockbusters', Shin's of Asian cinema, and Cere's of cinema museums; television for example, Deller's work on 'reality' talent shows, and Hogg's on American remakes of British drama and Louis' on representations of women's rights; contemporary media and journalism, such as Canter's work on social media and citizen journalism in the provincial press, and studies of discourses of war, 'hate', immigration and asylum seekers (Banks, Bassi, Cere and Kilby); and conceptual and political studies of language and linguistics (Bassi, Grainger, Jones).
- (ii) Cultures, Identities and Social Issues: Overlaps between this and the previous theme are evident in Ciolfi's work on visitor-generated content in sites of cultural heritage. Elsewhere, relationships between communication, identities and various social issues are salient in studies by Bassi on gay cultures in Asia, Cere on Italian female football supporters. Adam, Mallett and Slater on disability, Ibrahim on student protest and social movements, Waddington on the policing of 'riots' and social protest, and Jeffery and Southern on conflict and its resolution in so-called divided societies (i.e. South Africa and Northern Ireland, respectively).
- (iii) Interactive Technology Design: This includes work on software design primarily data management in security-related applications (Akhgar), digital intrusion detection (Day), and concept analysis in large data sets (Andrews). Akhgar, Andrews, Day and Waddington, are now combining their expertise in CENTRIC. Work on 'innovative approaches to interactive systems design' includes participatory approaches in cultural heritage settings (Ciolfi), design methods for user-centred healthcare and IT for social development (Dearden), ethical aspects of IT development (Adam), and Rodrigues' research within the Geometric Modelling and Pattern Recognition group (see Impact Case Studies).

CCRC objectives for the period 2014-19 are:

- Widening staff participation in research (especially in traditionally 'vocational' areas like journalism and public relations) via mentoring and special targeting of funding allocations. We envisage 35 fte staff being entered in a future Research Excellence Framework, compared with the 24.8 fte entered here.
- Using a similar process of targeted funding allocation in conjunction with more tailored recruitment of staff, and robust appraisal, mentoring and monitoring procedures to ensure that research quality is enhanced and its impact clearly demonstrated. We are aiming for a 15% increase in articles appearing in major journals within our constituent disciplines.
- Continuing to ensure the CCRC's economic viability as a research base by: (a) building on existing success via a 5% increase over the period in EU Framework and RCUK funding; and (b) exploring alternative external sources of funding (e.g. an average of three Knowledge Transfer Partnerships per annum or equivalent business engagements).
- Diversifying methods of financing studentships (and thus maintaining healthy recruitment) by: (i) creating a 'Teacher-Researcher' Bursary Scheme, and (ii) applying (where applicable) for AHRC Project Studentships and Collaborative Doctoral Awards.
- Consolidating and enhancing the growing reputations of particular areas of research (e.g. participatory systems design in health and community settings, community heritage) via links with other national and international HE institutions.
- Positioning the newly established CENTRIC as a major platform for security research in the UK.



- Encouraging 'impact' by making this a major qualification criterion for targeted internal funding (see also Impact strategy in REF 3a).
- Promoting academic research as a career path via processes of recruitment, progression and targeted research funding. We aim to include at least three internally-promoted Readers and three Professors in any future REF. We shall also be looking to enter at least six ECRs as part of our submission.

c. People, including:

i. Staffing strategy and staff development

Sheffield Hallam University (SHU) is committed to the principles of the *Concordat to Support the Career Development of Researchers*. Accordingly, the University's attitudes to the promotion of research are predicated on the principles of equal opportunity and a commitment to supporting the career development of *all* researchers, whatever the current stage of their career. SHU has a gender, race and disability equality scheme which ensures compliance with all relevant legislation. Examples include its commitment to good practice in employing people with a disability ('Positive about Disability') and its provision of a 'Right to Request Flexible Working Policy' for parents and carers. Twelve of the 25 staff submitted here (48%) are women. All staff are on permanent contracts, a key factor underpinning sustainability.

Career development of research staff is promoted by a suite of training courses, implemented according to needs identified during each individual's annual appraisal. Key examples of these are: leadership and management skills; research intelligence; grant writing; and commercialisation and Intellectual Property, all of which are delivered by our central Research and Innovation Office (RIO). CCRC support systems include specific funding for research activities (e.g. writing publications and making grant applications) and mentoring support from more senior colleagues. For example, as part of the 2013-14 appraisal and development process (occurring between June and September 2013), relatively inexperienced colleagues wishing to start or further their research careers were paired with suitably experienced mentors.

All lecturing staff receive an annual allocation of four weeks and three days' worth of self-managed time in which to pursue research and scholarly activities. Each May, the CCRC Steering Committee (see below) convenes to discuss applications for additional relief from teaching and other duties in order to do research, or for travel and other possible expenses. The process of adjudication is carried out according to a published set of criteria, linked to the CCRC's strategic objectives. Each applicant must seek appropriate advice and support when preparing their bid from at least one member of the Steering Committee and their immediate line manager. Around 30 such allocations are made every year. All recipients are assigned to a research mentor and are required to submit a progress report as part of an on-going monitoring process.

Research allocations are tailored to individual career needs on the understanding that support will be sustained according to the recipients' evolving research requirements, and with due concern for their career development. This is epitomised by our investment in the work of Andrews, who became research active in 2008. Targeted study leave enabled him successfully to bid for FP7 funding as part of a consortium, CUBIST, which allowed him to develop his 'Formal Concept Analysis' algorithms for commercial application. Further allocations have provided him with adequate time in which to write up and publish his findings (outputs 1-4), maximise the impact of his research (see Impact narrative) and co-author three more bids for European grants awarded to colleagues in CENTRIC (see section e).

As part of their induction, all new staff are invited to discuss their research plans and potential with the Head of the CCRC and are assigned to a research mentor from their own subject area. Custom and practice dictate that new staff will not be given a full teaching timetable in their first year of employment. Each year, approximately 25-30% of the research allocation budget of £100k is used to provide supplementary support for these newly-recruited staff. For example, Canter, Deller and Hogg were allocated extra time (approximately 15-20% of their working weeks) in which to establish their research during their initial year at SHU. All research-active staff in CCRC are annually appraised by the Head of Centre or his nominee to assess their development and training



needs. The Head of Centre is also the contact point for staff seeking help in applying for promotion (e.g. to a Principal Lectureship, Readership or Professorship).

SHU has a commitment to ensure that newly-recruited staff have research interests closely aligned with those of the Centre. These policies have enabled us to compensate for the loss, due to retirement or promotion to roles in other institutions, of seven Professors (Attwood, Button, Cowburn, Ryall, Siddiqi, Tricker and Yates) and one Reader (Light), who featured in our 2008 RAE submission. Since January 2008, Dearden and Waddington have been promoted to Professorships, and Andrews and Cere to Readerships. In addition Adam (Professor), Ciolfi (Reader), and Hogg and Canter (ECRs) have been appointed from other HEIs. The research culture continues to be strengthened by the retention of previous RAE entrants - Ryall, Siddiqi and Critcher - as Emeritus Professors.

ii. Research students

Postgraduate research students (PGRs) in CCRC are recruited and supported according to strict policies and guidelines for equal opportunities and best practice. Induction takes place annually at University level and is supplemented with an electronic resource on the Research Student 'Blackboard' (virtual learning) site. *Local* induction events are run in November, February and May. These give students an opportunity to meet one another, make contact with key academic and administrative staff, clarify the process for 'Approval of Research Degree Programme' and identify mandatory training requirements in the first year. The University Student Learning Services includes specialist support for disabled and international students, provides advice on student well-being and financial matters, and offers career guidance.

The University *Policy for Research Student Supervision* adopts a team-based approach to supervision, with a Director of Studies (main supervisor or DoS) supported by one or two second Supervisors. Collectively, each team must have supervised a minimum of two PhD students through to completion. All staff are required to attend annual training sessions to update knowledge of formal requirements and share best practice. Colleagues new to supervision attend the SHU Research Supervisor Development Programme. Less experienced co-supervisors are paired with more experienced colleagues and are mentored into the role by the PGR Tutors and Head of Programme Area for Postgraduate Research (HOPA, PGR). Issues arising from PGRs are monitored via a C3RI PGR Operations Committee which meets fortnightly. Membership includes the HOPA and subject area PGR Tutors. Two dedicated members of support staff (1.35 fte) provide assistance to PGRs in CCRC. A C3RI Staff-Student Committee meets thrice-yearly to discuss and find ways of resolving issues brought to the attention of Student Representatives.

Student progress is formally monitored through a series of progression points: at 3, 10 and 12 months from registration (or equivalent for part-time students). The 'Confirmation of PhD' registration stage at the 12-month mark involves a rigorous assessment of the candidate's ability to succeed at doctoral level. At this juncture, consideration of relevant ethical issues is built into a general appraisal of research progress requiring the candidate to present a 6000-word progress report, outlining their research aims, the context for the work, methodological framework of the project and potential contribution to knowledge. Students must also defend their emerging thesis (in a formal seminar or a mock viva). Student experience is rated via an annual monitoring exercise inviting them to give feedback on supervision, training, resources and administrative support. The results of this exercise are monitored by the C3RI PGR Management Committee and appropriate measures taken to address all issues raised.

PGRs discuss and identify individual training needs with their Director of Studies as part of the institutional process of application for approval of research programme. Individual training needs are formally reviewed at the outset of study and then repeated at the MPhil/PhD transition stage – at which point the DoS is required to write a progress report on the fulfilment or otherwise of training needs initially identified at enrolment. All PGRs receive training in the form of a faculty-level *Postgraduate Research Skills and Training Programme*. This includes sessions on Getting the Most out of Supervision, Personal Development Planning (PDP), Research Integrity and Intellectual Property, Getting the Most out of Conferences, Careers and Continued Professional



Development (CPD), Writing Up, Submitting the Thesis and Preparing for the Viva. All new students are required to undergo mandatory training in research ethics and health and safety.

The CCRC holds a regular research seminar/lecture series at which research students are encouraged to present findings and ideas. The HOPA has a dedicated budget from which to fund such developmental activities as attendance at conferences, workshops and inter-institutional training events. Each PGR is financially supported (up to a maximum of £1500, subject to approval) to make at least one presentation at an international conference. There is an annual joint conference with Leeds Metropolitan University, to which the Unit contributes, organised around such themes as 'Personal Effectiveness and Networking', 'Collaboration and Team-Working' and 'Writing-up and Preparing for the Viva'. Locally, student-led study groups are encouraged; for instance, full-time PGRs in Computing have monthly discussion meetings.

The CCRC has a good track record of recruiting high-quality, full-time, sponsored, international students (e.g. from Libya, Jordan, Oman, Botswana, Nigeria, Sri Lanka, Saudi Arabia, Kuwait, Indonesia, and China) and is supported in this activity by the Faculty's International Business Developers. The Centre secured a full-time, AHRC studentship in 2008 (in Open Competition) in the area of Film and TV Studies for Ruth Deller. Twenty-four PhDs were awarded in the census period. A number of PhD graduates have obtained posts as lecturers or senior lecturers in a range of countries including: Iran, Japan, Nigeria, Ireland and South Africa. Staff aim to foster the career progress of postgraduate colleagues through joint academic publications. For example, Dearden and Waddington have co-published work with the former PGR, McSeveny; Andrews with Orphanides; and Rodrigues with Robinson, Brink, Echeverria and Osman.

The C3RI is a partner in an AHRC Centre for Doctoral Training (CDT) in the area of 'Heritage' (led by the University of Hull). The consortium has provision for 26 full-time studentships between 2014 and 2018. Students will receive specialist, cohort-based training and have the opportunity to experience internships and mentorship with non-HEI partners. Teacher-Researcher bursaries (to include a maximum of 180 hours teaching per year within their terms) will be offered in 2013-14 in the areas of 'Adoption of Social Media', 'Interaction in Heritage Settings' and 'TV Fiction'. The CCRC's CENTRIC 'academy' now provides a focus for PhD recruitment in projects related to 'Communication, Policing, Justice and Security', in partnership with law enforcement agencies from Britain and overseas. Across relevant subject areas more generally, academic staff without doctorates are encouraged to enrol for PhD with fee waiver.

d. Income, infrastructure and facilities

The CCRC is underpinned by a comprehensive research infrastructure. At the wider institutional level, centralised support is provided by the University's RIO and the Learning Centre (Library). The former employs 16.2 fte dedicated personnel whose brief is to maximise intellectual outputs from market-driven research; facilitate the raising of funding to support research (e.g. by assisting on costing bids and checking compliance with qualifying criteria); support the exploitation of research; and create commercial technology transfer relationships with external organisations. The Learning Centre integrates quality academic library information resources (in electronic and hardcopy format) with excellent IT facilities in a range of different learning environments. It is open 24 hours a day, all year round. All staff research requires the formal approval of the Faculty Research Ethics Committee, for which Adam and Waddington are Chair and Vice-Chair, respectively.

Dedicated research facilities within the faculty include two user laboratories, for the study of human interaction with regard to different technologies, media, and environments. The laboratories include: full professional motion-capture equipment; eye-tracking mechanisms; TV and radio recording facilities; video, audio and animation editing suites; and data analysis tools. External collaborators (e.g. SAS and Sony) have provided additional infrastructure, including data mining tools and professional games development stations, and highly secure virtual private network and server infrastructure for security and policing based projects in CENTRIC.

Infrastructural support within the Unit is governed by the C3RI Executive committee, comprised of



the Head of CCRC (Waddington) together with equivalent Head of Art and Design, the Institute's Senior Administrative Officer, Knowledge Transfer Manager and the HOPA (PGR). Strategic decision-making within the CCRC occurs in consultation with a 12-person Steering Committee, comprising a wide cross-section of senior researchers, which meets every six weeks. Administrative back-up in C3RI is provided by the complement of 6.8 fte administrators, whose duties include helping to prepare and submit grant applications, supporting projects and events (such as a semester 2 CCRC seminar series with internal and external speakers), servicing committees, disseminating research opportunities, helping to manage finances, and supporting PGRs and supervisors. As mentioned earlier, the CCRC employs a full-time Research Assistant to help prepare funding applications. Knowledge Transfer provision is jointly led by a full-time Business Manager and a Knowledge Transfer Champion (see REF 3a).

This research infrastructure has helped the CCRC to secure a varied portfolio of funded projects during the census period. The total research income from these projects is approximately £4.1m of which £642,998 derives from RCUK grants, another £2,762,430 from European funding, and a further £703,556 predominantly from government bodies. An additional £324,902 of innovation income has come from regional development funds, licensing, commercial research and national support for business and social development.

RCUK grants include ESRC support (£60k) for a collaborative project between CCRC, Sheffield Homes and Sheffield City Council, investigating ways of addressing financial, technical and cultural barriers to the digital engagement of social housing tenants. Among major AHRC grants awarded in the census period was £70k for the 'Onscenity' project, which set out to establish an international network to analyse and understand the enhanced visibility of sex in areas of everyday life. AHRC-supported projects in the Connected Communities initiative reflect the socially engaged nature of much of the Centre's research: the 'Castleford Heritage' project worked with community groups to develop their bids for Heritage Lottery Funding (£20k); the 'Meanwhile' project explored ways of extracting social value from temporarily vacated premises (£31k); 'Co-Design in the Third Sector' investigated the feasibility of community organisations contributing to the design of social services (£3k); 'Create and Connect' works with creative social enterprises to explore their attempts to promote sustainability (£98k); and 'Scaling up Co-Design' explores how co-design practices in the Third Sector can be further extended (£8k).

EU grants obtained since January 2008 reflect existing academic strengths in relation to: *health* (£69k for the POCEMON 'point of care' monitoring and diagnosis for autoimmune diseases project, another £69k for the REMINE platform for patient safety risk management, and £166k for INNOVAGE – developing a socially innovative approach to healthy ageing); *concept analysis of large data sets* (£324k for the Combining and Uniting Business Intelligence with Semantic Technologies [CUBIST] project); and *robotic applications* (£211k for a control mechanism capable of providing support for automatic welding installations). The growing credibility of CENTRIC as a hub of multidisciplinary, security-related research is reflected in its acquisition of three major FP7 grants: ATHENA (£644k), exploring how new media may be used to improve communications between emergency services and ordinary citizens in 'crisis situations'; ePOOLICE (£417k), an environmental scanning system for detecting organised crime; and COURAGE (£116k), a brief to establish an agenda for the study of 'cyber-crime'.

A wide range of the Centre's applied research and development and directly commissioned work is secured on the basis of our specialist knowledge, skills, experience and reputation. Examples include work undertaken by Dearden with co-researchers at Makerere University aimed at encouraging innovative usage of mobile digital technologies in Uganda (British Council, £60k); 'insight' and design work by the Dearden to develop communication strategies for dialogue about cousin marriages within ethnic minority communities (Leeds NHS, £9k); Waddington's investigation of the underlying reasons for public confidence in local policing (South Yorkshire Police, £16k) and also his evaluative and advisory role on a project (GODIAC) designed to produce a more lenient and facilitating style of policing protest events across Europe (the Swedish National Police Board, £22k). Often, the sensitivity of the issues involved and/or presence of 'non-disclosure' clauses prevents such work from being converted into academic publications. This applied, for instance, to



Rodrigues' use of state-of-the-art scanning technologies to create interactive 3D models of the Designated Metalwork collection managed by Sheffield Museums (Joint Information Systems Committee, £44k). Such work contributes heftily to the CCRC's economic sustainability, vitality and overall significance for society.

e. Collaboration and contribution to the discipline or research base

National and International Collaboration: In line with the CCRC's strategic commitment to securing European funding, there have been numerous instances since January 2008 of CCRC members engaging in research collaboration with academic colleagues elsewhere in the UK or abroad. In addition to the CENTRIC initiative, referred to earlier, the Centre's researchers have worked alongside colleagues on a wide range of ventures, including: ISAC6+, a project in the EU Competitiveness and Innovation (CIP) programme (in partnership with the University of Gerona and local authorities in Spain, Germany, France and Ireland) to generate ICT methods by which public authorities can retrieve and manage information from existing databases on the basis of citizen demand; and the CUBIST project (referred to above), in which the CCRC works in conjunction with Ecole Centrale (Paris), SAP Research and Ontotext to show how techniques of Formal Concept Analysis can be used to structure, interpret and visually represent highly complicated business data.

Similar collaboration has taken place with regard to the publication of academic outputs. For example, Mallett has co-edited a special edition of the Review of Disability Studies journal with colleagues from Liverpool Hope University, Manchester Metropolitan University and the University of Sheffield; Hall has co-authored Epics, Spectacles, and Blockbusters with Steve Neale (University of Exeter), and also co-edited Widescreen Worldwide with Neale and John Belton (Columbia University, USA); Cere has collaborated on a book on postcolonial media cultures with Lucia Krämer (Leibniz Universität, Hannover, Germany) and Kai Merten (University of Kiel), and with two other colleagues, Professor Yvonne Jewkes (University of Leicester) and Thomas Ugelvik (University of Oslo, Norway) on a chapter on representations of crime in European Media; Rodrigues was co-author of an article in the Medical Image Analysis Journal with colleagues at: Princeton (New Jersey, USA), the Université d'Auvergne and CNRS (France), Imperial College London, University of Siegen and, Karlsruhe Institute of Technology (both Germany), and University College London: Waddington has co-edited a book on the British and French riots with Professor Mike King (University of Central England) and Fabien Jobard (CNRS, Paris), and also co-edited (with King) a special edition of Policing and Society, featuring articles by American, French and Italian colleagues. Dearden has co-authored work with Doerflinger (SAP Research, Germany), Ho (Berkeley, USA) and Smyth (Georgia Tech, USA).

Collaboration has also taken the form of co-organising conferences or workshops. For example, Attwood secured AHRC and British Council awards enabling her to organise separate series of workshops (on young people's sexualities, and online sex and pornography) which drew together researchers, educators and relevant governmental and charitable agencies; Mallett co-organised three successive 'Critical Disability Studies' annual conferences (2010-12) with Katherine Runswick-Cole (Manchester Metropolitan University), Dan Goodley (University of Sheffield), and Cassie Odgen (University of Chester); and Dearden co-organised the India Human-Computer Interaction/Interaction Design for International Development conference (Delhi, 2010). Finally, the CCRC submitted a successful tender to host the twelfth ETHICOMP conference (concerned with ethical issues around ICT) in September 2011.

Intellectual Contribution to the Discipline: The CCRC is a multidisciplinary unit with a varied portfolio of research consciously designed to bridge distinctions between theoretical and applied work. One example from each of the Centre's core research themes can help exemplify the wide range of applied contributions it makes to the discipline.

(i) Institutions, Texts and Representation: Hall's co-authored book with Steve Neale (Hall, 3) has already been frequently cited in scholarly articles as a landmark contribution to understanding the American film industry and its history. In particular, it has been acknowledged for demonstrating the extent to which distribution, exhibition and marketing methods have played a crucial role in



shaping the Hollywood blockbuster.

- (ii) Cultures, Identities and Social Issues: Waddington's continuation of a 30-year local tradition of theorising the policing of public order has seen his work (1-4) occupying the forefront of recent academic, journalistic and political debate (on such subjects as the Hillsborough stadium disaster of 1989, the G20 protest of 2009 and the 2011 English riots) regarding the need for more tolerant and 'facilitating' modes of crowd management.
- (iii) Interactive Technology Design: Dearden's work on applying participatory approaches to the design of interactive systems to broader agendas of social and economic development has helped to define new directions in the field. Such approaches are widely cited as models for the roles that technology designers can play in development work. Working in conjunction with practitioners, Dearden has presented a set of ethical principles to guide such research, which have recently been published in the most widely cited journal in this field (Dearden 1).

The Centre's intellectual contributions to the discipline's research base are further reflected in the following accomplishments and activities:

Occupation of Prestigious Positions: Cere is a committee member of the Comitato of Digitales Scientifico. Adam was a member of the RAE 2008 LIM subpanel, and is Deputy Chair of the REF 2014 CCMS/LIM subpanel. Adam and Dearden are members of the ESPRC Review College, and Hall of the corresponding AHRC College. Dearden has twice served as an EPSRC panel member. Waddington was the External Evaluator for the EU-funded GODIAC public order policing project. Dearden is the UK representative on the International Federation for Information Processing (IFIP) Technical Committee on HCI, as well as the chair of the IFIP special interest group on Interaction Design and International Development. Waddington and Grainger have been grant reviewers for the ESRC, Waddington for the Danish Council for Independent Research and the Foundation for Canadian Studies, Dearden for the South African National Research Foundation, and Hall for the Social Science Research Council of Canada. Akhgar is on the Academic Advisory Board for SAS UK (the world's largest privately owned software company).

Prizes and Awards: In January 2010, Dearden received the Mantham South Asia Award in recognition of his interventionist research on the use of mobile phones in rural India. Waddington was made Visiting Professor at Birmingham University from 2008-2010. Akhgar was presented with an 'Achievement Award' at the 2013 World Congress of Computer Science, Computer Engineering and Applied Computing, and has been made Visiting Professor at the University of Tehran. In May 2013, one of Adam's journal articles (Adam 1) was voted winner of the Outstanding Paper Award for the Journal of Information, Communication and Ethics in Society, as part of the Literati Network Awards for Excellence scheme for 2013.

Editorial Positions: Akhgar is series editor on cyber-crime for Elsevier publishing. Grainger is coeditor of the Journal of Politeness Research, while Andrews co-edits the International Journal of Conceptual Structures and Smart Applications. CCRC colleagues sit on a wide variety of other editorial boards - e.g.: the International Journal of Gender, Science and Technology; Journal of Information Technology Education; Crime, Media, Culture; Journal of Intercultural Communication; Feminism and Psychology; Language Sciences; Disability and Society; Information, Technology and People; International Journal of Distributed Systems and Technologies; Journal of Adaptation in Film and Production; Mobilization: An International Journal of Social Movements; Information Technology and International Development; and the Voluntary Sector Review.

Conference/Workshop/Seminar Organisation and Participation: Shin was a guest lecturer at the Korean Media and the Transnational conference in New York (2011); Rodrigues delivered the keynote speech at the MICCAI 2011 International Conference on Medical Image Computing and Computer Assisted Intervention in Toronto, Canada; and Dearden was chair of the first ACM Symposium on Computing and Development (London, 2010), and also delivered a keynote on Intelligent Interaction and Multimedia Technology at III Allahabad, India, in 2013.