

Institution: Edinburgh Napier University			
Unit of Assessment: Unit of Assessment 34 – Communication, Cultural and Media Studies, Library and Information Management			
1. Unit context and structure, research and impact strategy			
1.1 Unit Context and Structure			
This Unit is made up of 19 staff from five research centres across three schools. One individual (Atton) works across two centres. All hold open-ended contracts.			
School	Research centre (no. of staff)	Staff	Position
School of Arts and Creative Industries (SACI)	<i>Centre for Media and Culture</i> (9)	Atton	Professor
		Blake	Associate Professor (AP)*
		Duff	Professor
		MacLean	AP*
		MacLeod	AP*
		Milne	AP* (p/t)
		O'Neill	AP**
		Scott	AP*
		Sellors	Lecturer
	<i>Applied Music Research Centre</i> (3)	Atton	Professor
		Harkins	Lecturer
		Medbøe	AP*
	<i>Scottish Centre for the Book</i> (1)	McCleery	Professor
School of Computing (SoC)	<i>Centre for Social Informatics</i> (CSI) (5)	Brazier	Lecturer**
		Hall	Professor (p/t)
		Haynes	Lecturer**
		Muir	AP**
		Webster	Lecturer**
Business School (TBS)	<i>Modern Languages and Intercultural Communication Research Group</i> (2)	Victoria	Lecturer
		Zhou	Lecturer
*Promoted in assessment period **Appointed in assessment period			
<p>Staff from all three Schools interact frequently through research seminars and conferences, and with colleagues in other disciplines in their Schools. In some cases, Unit members collaborate across Schools on specific outcomes; e.g. Duff and Hall on joint research degree supervisions, co-authored papers, an external consultancy project and hosting the Association for Information Science and Technology's (ASIST) 2016 Annual Lecture, MacLeod and Muir on improving equality and diversity (E&D) as departmental Athena SWAN champions, and Atton and Hall on the development of the University's Research Degree Framework.</p> <p>Research across the Unit is diverse:</p> <ul style="list-style-type: none"> The <i>Centre for Media and Culture</i> includes: alternative and community media (Atton, MacLeod); dream cultures (Milne); government intelligence (O'Neill); information society studies, ethics and policy (Duff); minority representation (MacLeod); philosophy of film (Sellors); and Scottish documentary and television (Blake, MacLean, Scott). 			

- *Applied Music Research Centre* colleagues conduct research on: sampling and instrumental history in popular music (**Harkins**); genres such as Nordic jazz (**Medbøe**); and free improvisation and progressive rock (**Atton**).
- Research in *The Scottish Centre for the Book* is devoted to Scottish and international publishing (**McCleery**).
- Researchers in *CSI* provide critical perspectives on sociotechnical interactions across subject areas that include: knowledge management (**Hall**); information behaviours and use (**Brazier, Hall, Muir, Webster**); information governance, and knowledge organisation (**Haynes**).
- Colleagues in the *Modern Languages and Intercultural Communication Research Group* focus on English as an international communication medium in education and employment (**Victoria, Zhou**).

Methodologically the Unit embraces a diversity of approaches, from basic, conceptual research, through empirical studies including local and international fieldwork, to practice-led projects geared to local or global public engagement (PE).

UoA 34 represents a multidisciplinary collective with built-in tendencies to favour interdisciplinary research, as evident in the research undertaken (e.g. library and information science research with employment research). This is also reflected in PhD supervision teams. In some cases, Directors of Study from within the Unit are joined by second supervisors from other Schools. This inherent interdisciplinary is also obvious in events attended and hosted by Unit members, e.g. staff participation at a conference on interdisciplinary social sciences in Japan in July 2018, and SACI's hosting of the University's Interdisciplinary Theory Group since 2016.

1.2 Research and Impact Strategy

1.2.1 Research objectives 2014-2020

We stated in 2014 that our strategy was '*to increase the volume, quality and impact of [our] research through strategic internal investment in research project development by staff and by funding new research studentships... [To] pursue applied research opportunities with industry partners and continued development of knowledge exchange, innovation and public engagement activities*'.

The anticipated internal investment in project development and University-funded PhDs helped meet these objectives. For example, in terms of research volume we have increased our rate of external grant applications. Furthermore, increased investment in staffing has contributed significantly to the growth of the strength of our research. Five full-time research-active staff have joined since 2014 (noted above). In addition, major internal staff development has added to our cohort of leaders, with five staff promoted to undertake leadership roles alongside the four professors (noted above). This investment in staffing also accounts in part for the doubling in the number of those submitted in the Unit in 2021, as compared with UoA36 in 2014.

The strategic approach of devoting internal funding to strengthen the vitality and sustainability of the Unit is evident in many of our activities and outputs. For example, we have enjoyed sustained success at winning funding in a University-wide system of internal research grants (**Muir, Webster**). In some cases, the completion of small-scale projects and delivery of research-related events seed-funded through this scheme has led to the submission of successful external funding bids (e.g. **Webster** Carnegie funding, 2018). Even when unsuccessful, work on internal and external bids embeds research culture, especially when they involve internal and/or external collaborations.

The increase in the volume of research outputs has also been supported by internal investment. For example, staff were relieved of some teaching and marking duties in 2018/2019 to concentrate on publications. Our systems of internal peer review for grants and research outputs, through mentoring and 'dry-run' events for papers to be presented at external events, contribute to the supportive environment in which our research can flourish. They also increase

the quality of our research outputs, as feedback from peers can be incorporated into final versions of our work.

Under another internal scheme, we have accessed funding to develop our PE activities. **Victoria** won funding to run a series of intercultural training workshops for tourism-oriented shops in 2017/18, and to enhance intercultural understanding and inclusion using visual methods in 2019. **Brazier** was granted funding to support outreach activities with Edinburgh City Libraries in 2020. Members of the Unit also draw on funds offered at School level for PE. For example, **Duff** was supported in 2017/18 to engage the public on the streets of Edinburgh in debate about privacy. We also lend support to national PE events and campaigns (e.g. **Harkins** – AHRC Being Human Festival, **Milne** – Lithuanian days in Scotland, **Muir** - Soapbox Science).

The Unit's REF 2014 statement referenced '*the high level of staff engagement with creative industries, SMEs and public bodies*' as a way of '*help[ing] ensure the relevance of research project development*'. Our 2014 objective to pursue applied research opportunities with industry partners in the current period relates to this. Our keen interest in practice, a natural outcome of the professional backgrounds of many staff, has resulted in several successful collaborations. These include **Blake's** collaborations with Channel 4 and STV, and **O'Neill's** weekly on-air media review at Radio Scotland.

Other examples to illustrate the vitality of our links with creative SMEs and public bodies include: **MacLeod's** work with the Scottish National Library Moving Image Archive (2016) and the National Museum of Scotland's Rip It Up exhibition (2018); **Medbøe's** long-term partnerships with the Edinburgh Jazz and Blues Festival, and the National Library of Scotland; **Blake's** consulting projects for the Grid Iron Theatre Company and BASF Pharma; and **Scott's** leadership of Screen Academy Scotland (a ScreenSkills-approved training provider designed for academia-industry symbiosis).

We have met our 2014 ambition of developing our knowledge exchange activities, both in terms of 'outward' dissemination of our work with national and international research communities, and bringing key research stakeholders to our own events (mainly physically up to March 2020). For example, staff have been supported (both internally and externally) to make presentations across Europe (**Atton, Hall, Harkins, McCleery, MacLean, MacLeod, Medbøe, Milne, Scott, Sellors**), North America (**Duff, Hall**), South America (**Hall**), and Japan (**Duff, MacLean**). Our research culture has also been enhanced by our organisation and hosting of events, such as conferences and external-speaker seminar series open to external delegates and staff. These include seminar series on: discourse, culture and society; practice-based research methodologies in media studies; research methods in intercultural communication; information policy; women working in film and television.

International collaborations on journal articles and edited volumes (**Atton, Duff**), and funded fieldwork (e.g. **Milne** in Moscow; **Duff** in Silicon Valley, California) are among the many ways in which a global reach has been achieved. Visiting researchers add to this. During the assessment period we have welcomed colleagues from many countries (including Austria, Brazil, Canada, Finland, Greece and Sweden) as visiting speakers and researchers for stays of up to one month. Such activities further demonstrate our commitment to the health, well-being and sustainability of the subject domains that we cover at local, national, and international levels.

In terms of innovation, we have continued to approach research in novel ways, taking advantage of the interdisciplinary nature of the domains to which we contribute. While much of our work does not naturally lend itself to innovations as artefacts, it is innovative in the development of theory, the adoption of new research approaches, and in the presentation of new knowledge that may be applied in practice.

The University funding of new PhD studentships noted in our 2014 strategy has added to the number of students in the Unit, and fee waivers have supported several part-timers. Studentships have been resourced from centralised funds, e.g. the University's 50th Anniversary

studentship scheme, and by Schools. This investment has helped the Unit increase the volume, quality and impact of its research. For example, one University-funded student (now graduated) co-authored five peer-reviewed papers with her supervisors (one won a conference 'best paper' award), and made efforts to facilitate impact from her work by presenting it at practitioner and PE events (e.g. practitioner conferences, Skeptics at the Fringe, BrightClub). By adding these internally-funded PhD students to the Unit's cohort, we have also widened opportunities for staff to develop as research degree supervisors. Our research capacity is further enhanced as the new supervision team members work alongside their more experienced colleagues.

1.2.2 Research objectives 2021-2026

Our research objectives for 2021-2026 fit with the broad University aim to foster a sustainable, interdisciplinary research environment that inspires staff and stakeholders to solve real world problems. Our plans also acknowledge the University's priorities following Brexit and the disruption of the pandemic (REF5a). We intend to use our research and innovation activity to help underpin the University's reputation, financial sustainability and growth, to collaborate more intensively with others outside our core disciplines, to add to our existing collaborations with other institutions and industry, to keep our research closely aligned to government priorities, and to ensure that our research contributes to society by delivering real impact.

In terms of growing the careers of our colleagues, one strategic development is focused on increasing the number of staff with PhDs. We are also keen to enlarge our cohort of PhD students to develop the next generation of researchers across the domains that we cover. In addition, following the recent success of SACI centres in increasing numbers of research leaders, we are keen to duplicate this elsewhere, particularly within CSI. These ambitions will be supported by institutional investment in new appointments as outlined in REF5a. Internal staff development and promotions will contribute to succession planning.

We will continue to build our local, national and international networks, especially those in research user communities in the private, public and third sectors, to develop mutually beneficial links. This will contribute to our ambition to further breach the divide between practice and research, leading to an even stronger understanding of practice-led research, and practice as research. It will also facilitate increased impact. At the same time, we will engage with our peers in academia, both within and beyond the UK, to support the development of our subject areas. We will take advantage of the investment in the University's Innovation Hub to showcase our expertise and the impact that we generate, and develop links and opportunities with external bodies, taking into consideration the challenges that our potential research beneficiaries face.

We will advance knowledge by building on our established reputation in key areas by accessing further external research funding to support the University's 'Culture and communities' theme. This will be achieved in tandem with growing expertise in new research areas and methods (e.g. advanced quantitative methods for the analysis of big data in the arts, humanities and social sciences), and through the recent appointment of additional staff (noted above). We will build on our track record in winning funding from internal schemes to support the preparation of bids with the ambition that all staff currently in the Unit (especially recent appointees) will be supported to generate income in the next assessment period.

We are also keen to seek greater external reputational recognition, e.g. for the inclusivity of our research culture through national awards (e.g. Athena SWAN).

1.2.3 Impact

The importance of impact to the Unit is evident in the third objective of our 2014 strategy (above). Our focus is centred strategically on societal and cultural issues.

We achieve impact by deploying a number of strategies. These include conducting research with research users, including user-commissioned research, appointing research users to project steering committees and advisory boards, and seeking the active engagement of research users in design, implementation and dissemination of research. The latter is particularly important

when we engage in practice-as-research, to generate collaborative creative works.

In addition, our dissemination strategies are aligned to where and how research users access new information. This often means that we create 'parallel' outputs from our research projects, e.g. a paper in an international peer-reviewed journal for the research community, and a conference presentation for a practitioner audience. The former emphasises our contributions to knowledge and theory development, the latter recommendations that can be implemented in practice. We also ensure that our outputs are made open access whenever possible, and provide non-academic routes to them (e.g. Twitter and blogs).

We are particularly active in drawing attention to our research in the media, using this as a route to impact. In the assessment period we have, for example:

- appeared on television: *Newsnight*, *Scotland Tonight* (**Duff**)
- appeared, or had work featured, on UK radio stations: BBC Radio 4 (**Milne**); BBC Radio Scotland (**Blake**, **Medbøe**, **O'Neill**); BBC Radio Orkney (**MacLeod**); and non-UK radio stations: Radio Sputnik (**Duff**); NRK Norway, DR Denmark, RTP1 Portugal (**Medbøe**)
- written for, been interviewed by, or been the subject of reports in print/online news media: *The Atlantic.com* (**Duff**); *Buzzfeed* (**Blake**); *The Conversation* (**Duff**, **Harkins**, **Victoria**); *Edinburgh Evening News* (**MacLeod**); *The Ferret* (**Duff**); *Oban Times* (**MacLeod**); *The Oracadian* (**MacLeod**); *The Scotsman* (**Blake**, **MacLeod**, **Medbøe**); *Scotland on Sunday* (**Duff**)

We also contribute to strategies to encourage funders to support research that is relevant to the research user community, e.g. through **Hall's** membership and chairing of the EPSRC Digital Economy Programme Advisory Board (2014-2018).

The success of these routes to impact is reflected in the number of potential impact case studies from which we selected the two for our REF submission. Staff were initially commissioned and resourced to work on five drafts. The others concerned alternative media in the classroom (**Atton**), promoting ethical information principles (**Duff**), and feminist photographer Franki Raffles (**Scott**) (case study submitted in UoA32). This number is indicative of the real-world relevance of research in the Unit and its growth in diversity since 2014. From five we selected two to reflect the Unit's strengths in scope and quality of research.

In the research for our two submitted impact case studies we adopted the approaches described above. *Key to modernising the information professions* was user-commissioned research which benefitted from a steering board that included practitioners from across the information professions, who were actively involved in the design and implementation of the study. The project was publicised throughout its duration in a wide variety of media. Following completion outputs were generated for both the research community and practitioners. After an embargo period, the full report was made open access, thus extending further its reach and potential impact.

For *Enhancing participatory film practices to empower marginalised groups* we deploy similar strategies so that relevant agencies, organisations and services users buy into the projects from their initiation, and key stakeholders draw on the outputs in future policy making and services provision. As practice-as-research, there are high levels of participation and engagement in the creation and delivery of the main artefacts from this seam of work, as well as associated outputs such as training materials. We ensure that the audiences for our productions are not restricted to the immediate beneficiaries in the marginalised groups. This means that the potential impact of the participatory film-making can be felt across society, from school children to the First Minister of Scotland. In parallel with disseminating our work to non-academic audiences, we generate outputs from our participatory film for the research community in monograph and journal/conference paper format.

We plan to ensure impact in the future by deploying and developing the techniques outlined

above. In doing so we will draw on current good practice. This includes work of **MacLeod** to support community media projects and filmmakers in the Pacific, which serves as an exemplar of community benefit from participation in media production.

1.3 Implementation of the University's Approach to Open Research and Research Integrity

The Unit's progress to an open research environment fits with that of the University. At a minimum we support open access to our publications and underlying data (where appropriate) on the University's research management system. We do so by following the University's Open Access and Research Data Management policies and attending relevant training. In addition, we maintain publicly accessible online presences for some of our projects (e.g. <http://lisrival.com>) and ourselves (e.g. ORCID, personal web pages).

The principles and practices to which we adhere when executing our research are defined in the University's *Code of Practice on Research Integrity*. With reference to this, we apply appropriate research design and frameworks to ensure that the findings of our empirical work are robust and defensible. We also adhere to the highest level of research ethics considering requirements of national and international regulatory bodies, including the *Concordat to Support Research Integrity* (2019). Oversight of research integrity across the University is provided through School Research Integrity Leads, members of School Research Integrity Committees, and ethics gatekeepers. In the assessment period, **Duff** and **Webster** have undertaken Research Integrity Director roles for SACI and SoC (and also held membership of the University Research Integrity Committee), and **Zhou** has served on the Research Integrity Committee of TBS.

Within the Schools, a number of targeted local initiatives have been introduced to support research integrity. For example, SACI has provided an online one-stop shop for documents and links, a weekly 'professorial surgery' drop-in facility, research integrity roadshows with presentations about research ethics, and research integrity presentations for research students.

2. People

2.1 Staffing

Our staffing and recruitment policy is effective at attracting and retaining excellent staff.

In our new appointments we seek to increase the quality of our research and grow the existing areas of excellence in which we have critical mass, following the University's *Academic Appointments and Promotions Framework*. Since 2015, this includes the requirement that all new staff hold a PhD. Candidates shortlisted for advertised posts follow a recruitment process that includes a panel interview, and at least one presentation to a wider group of staff.

The demographic profile of our Unit varies across the three Schools. In SACI the majority of staff hold promoted posts, in SoC and TBS they are lecturers. Future efforts need to be directed so that those currently in lecturer posts have the opportunity to move into leadership roles, following the example of SACI colleagues in the period.

2.2 Staff Development

The University's *Academic Appointments and Promotions Framework* recognises four career pathways. Those on the Research Pathway are supported in their career ambitions through development activities at University, School, and research centre level.

The main tool for linking development with opportunity is an online appraisal system (MyContribution). Objectives are set annually with reference to the support required to meet them, e.g. mentoring, training, protected time. Objectives are geared towards winning of grants, production of research outputs, and facilitating impact. Progress is reviewed at least twice a year in professional development review meetings.

Training opportunities offered at University level are wide and varied. They include informal sessions for networking (e.g. researcher coffee club), technical training (e.g. on research software), seminars on the dissemination of research (e.g. academic publishing, conference presentations, PE as a route to impact), and research degrees (e.g. supervising and examining research degree candidates).

Schools offer funds for staff to attend external training and staff development events, including international participation. School funding is also available to support travel for fieldwork. For example, **MacLean** and **MacLeod** were funded for separate projects in the Scottish islands (2017), and **Milne** travelled to Moscow (2016) and Stockholm (2019) to film for her practice-based research. On occasion we have won places on prestigious externally-funded development programmes, e.g. **Webster** was selected for the EPSRC ECR Digital Economy Crucible in 2017.

In some instances, we have designed and implemented tailored development activities to address particular training needs. For example, **Harkins**, **MacLean**, **Medbøe** who all joined the University before 2015 and without a doctorate, have been supported to undertake PhDs. **MacLean** and **Medbøe** completed theirs by Published Works, a particularly appropriate route to demonstrate significant levels of professional and creative activity at doctoral level. They benefited from **Atton's** leadership of the development and delivery of the PhD by Published Works through creative practice, taking advantage of a mentorship scheme, workshops, and PhD supervisors trained to support this route. The success of these colleagues reflects our increased emphasis on practice-led research.

In the same way that we support established staff to achieve their research ambitions, we make provision to integrate new researchers into our research culture. Mentorship is vital to this. For example, all new researchers, postdoctoral and early career (ECR), are allocated an experienced member of staff as a mentor to help with activities from network building (e.g. encouraging collaborations with other researchers) to writing research proposals. We open PhD supervision opportunities to ECRs by awarding them School-funded PhD studentships (**Webster**) and/or appointment as additional supervisors on PhD teams (**Brazier**, **Harkins**, **Haynes**, **MacLeod**).

Although the University does not operate a formal sabbatical policy, all research centres endeavour to support requests by staff at any level or contract for periods of research leave where the member of staff presents a proposal with tangible objectives, e.g. by condensing teaching allocation into a single trimester.

2.3 Knowledge Exchange

We stimulate and facilitate exchange with business, industry and third sector organisations through various means. We take advantage of existing networks built by Unit members in their earlier careers, for example in broadcast media (**Blake**, **McLeod**, **O'Neill**), music publishing (**Harkins**), and consulting (**Haynes**). We also maintain strong links with research user communities through project work, e.g. healthcare practitioners (**Webster**).

Similarly, we place high value on professional memberships/services so that our staff are known and trusted in the wider environment. For example; **Haynes** is a member of the board of the International Society for Knowledge Organization, and **Medbøe** has been a member of Jazz from Scotland, serves on the board of directors of the Edinburgh Jazz and Blues Festival, and is the founding chair of the Scottish Jazz Archive. **Milne** is president of the Traditional Cosmology Society. On occasion this service has led to the winning of research contracts offered by professional bodies (**Duff**, **Hall**).

We also have recourse to the wide range of networks to which other research centres in our Schools belong (e.g. the Scottish Informatics and Computer Science Alliance (SICSA) in SoC), and those that the University supports (REF5a). The University's Innovation Hub provides a

further route to external knowledge exchange.

2.4 Recognition and Reward for Research

Recognition and reward for staff who carry out research primarily takes the form of time. The normal university workload allocation gives one day per week (0.2FTE) to research-active staff for research that is not externally funded. This allocation can be increased at local level, e.g.

Brazier benefitted from an extra 0.1FTE in his first year as a lecturer to help establish his research career. Additional allocations are given for research leadership roles, including directors of research centres, UoA leaders, and those developing impact case studies. Similarly, where external research-related work brings esteem and influence to the Unit (e.g. UKRI activity, journal editorships), staff are awarded additional protected time.

Staff are also recognised and rewarded for carrying out research and achieving impact through two University schemes; the Principal's Research Excellence Awards, and Above and Beyond. The latter identifies high-performing staff across activities including partnerships, enterprise, and research and innovation. Members of the Unit have enjoyed success on both schemes. For example, in 2016 CSI was the most successful research group in the University with three Excellence Award wins. **McLeod** was nominated for a leadership Above and Beyond award in 2019/20.

2.3 Research Students

2.3.1 Recruitment of research students

In the current climate, with a scarcity of self-funded students in the UoA34 disciplines and difficulties in securing external funding, recruitment of research students is a challenge. We address this by deploying a range of strategies.

There are three main entry points for our PhD students; application for an ESRC-funded studentship on a defined project won by staff through our membership of the Doctoral Training Partnership (DTP) of the Scottish Graduate School of Social Science (SGSSS), response to an advertisement for a fully-funded or part-funded (e.g. part-time fee waiver) School studentship, and submission of a project proposal as a self-funded/employer-sponsored student.

In all cases, applicants engage in the formal recruitment process. This includes; completion of an application form, interview, supportive references, and, in the case of non-native English speakers, an IELTS score of at least 6.5. This process plays heed to good practice in respect of E&D, following the University's guidelines on recruitment, e.g. gender balance on interview panels.

In the current REF period we have won six studentships funded by a major funding body, with a further two secured for 2021/22. These are all supervisor-led ESRC Skills Development Scotland (SDS) collaborative awards accessed through CSI's membership of the DTP of the SGSSS.

2.3.2 Monitoring and support of research students

During the census period the Unit has seen 14 PhD completions (plus 3 PhDs by Published Works). The completions comprise 8 supervised within CSI and 6 within SACI. Since the census date, a further CSI student has graduated (November 2020). Across the Unit there are currently 19 PhD candidates: 10 in SACI; 6 in CSI (with 2 further ESRC/SDS students undertaking the +1 Masters year at Edinburgh University); and 3 in the Modern Languages and Intercultural Communication Research Group.

As per the REF5a, we monitor and support PhD students to completion through structured supervision arrangements with a minimum of two supervisors (meeting weekly in the first year, thereafter fortnightly), and via six-monthly review meetings with an Independent Panel Chair (who is also available to provide independent advice at any point). Our ESRC-SDS students also have a named contact at SDS to provide advice and support in relation to the PhD topic,

facilitate access to the policy community, and introduce opportunities for dissemination of research. The contact is invited to attend the six-monthly progress meetings. The quality of our supervision has been recognised nationally and internationally in two awards. **Hall** won the SICSA PhD Supervisor of the Year Silver Award 2017, and ASIST Clarivate Outstanding Information Science Teacher Award 2019.

Our research students undertake training so that they graduate with a knowledge of principles of research design and strategy, qualitative, quantitative, mixed and multi-methods for data collection and analysis (including use of software), research data management, dissemination of research findings, and research ethics. In addition, it is important that they develop transferable skills, e.g. in communication, networking, leadership and management, so that they are fully prepared to take responsibility for the future trajectory of their careers following graduation.

An individual student's training programme is determined following a training needs analysis conducted with reference to the Vitae Researcher Development Framework. This is initially conducted when the student joins the University, and subsequently reviewed at six-monthly intervals as part of the formal series of review meetings. Between meetings, any additional training needs that become evident, and the means of addressing them, are discussed and fulfilled at supervision meetings.

The extensive range of training and development opportunities, both internal and external, are provided by a number of suppliers. Napier offers training at University, School and research centre level. It is mandatory that students participate in certain activities and events, e.g. undertaking training in research ethics, contributing to School and University-wide research conferences, and completing internal training that is of direct relevance to their studies. The students also access other internal training resources. For example, **Sellors** has organised a series of PhD workshops in SACI on topics such as conferences, research integrity practice research, and PE, with contributions from several members of the Unit (**Duff, MacLeod, Milne, Scott**). **Muir** organised a two-day ESRC-funded advanced training event with international speakers for PhD students in Information Science in 2016.

Beyond the University, students take advantage of numerous training and development opportunities including those offered by the SGSSS, the Scottish Graduate School for Arts and Humanities (SGSAH) and other providers, e.g. National Centre for Research Methods. They are also funded to participate at conferences and doctoral fora (in the UK and beyond) to present their research in progress and build their own networks. In addition, we encourage our students to engage in the delivery of training themselves. For example, CSI research students have played an active role in the planning and hosting of iDocQ, the UK's longest running annual Information Science Doctoral Colloquium, and contributed to training events hosted/funded by the SGSSS, e.g. the annual summer school.

The physical and social environments within our research centres contribute much to the support of our research students, and are indicative of our commitment to developing a culture in which they are fully integrated. Each student has a desk in a large, multiple-occupancy office. In addition, those in CSI have access to 'Core 44', a collaborative workspace for research students in SoC, regularly used for training events. Research students are treated and valued as full members of their respective research centres. They are invited to all research group events, from regular weekly research group update meetings and research seminars, to fewer formal get-togethers (e.g. the informal online coffee breaks held 11:00-11:30 each weekday by CSI during the pandemic).

2.3.3 Preparing Research Students for Future Careers

These means of integrating of our research students forms part of our strategy to furnish them with necessary skills for their future careers. We emphasise that completing a PhD is more than writing a thesis. We offer students opportunities to work closely with their supervisors to develop their own publications through single-authored and collaborative work, to undertake teaching,

and to contribute to on-going research projects. We also support them to engage in paid and unpaid external professional activities when it fits with their studies (e.g. copy editing, stewarding at conferences, external research assistant work), and to participate in the SGSSS paid internship programme. The value of this is evident in jobs that our PhD graduates secure. For example, the last five CSI PhD graduates in the census period found immediate postdoctoral employment at Dundee, Liverpool and Sheffield Universities, and within the NHS and Scottish Government.

2.4 Equality and Diversity

Our Unit is committed to E&D in the recruitment and support of staff and research students. In the first instance, we maintain this by following practices adopted at University level for arrangements such as maternity and paternity leave, flexible working, return to work after extended leave (e.g. following illness), and remote working. We also engage in training to support good E&D practice, e.g. unconscious bias. In addition, we participate in committees and the University networks established by the University to support colleagues with protected characteristics (e.g. **Hall** on the University E&D/Inclusion Committee, and as an LGBTQ+ ally).

Our 'local' initiatives to support E&D across the Unit pay heed to the University's Inclusion Statement. This commits us to promote equality of opportunity in all that we do. Thus, within our research centres we strive to promote equal access to opportunities for individuals to support their research and further their careers. This applies, for example, to access to funding for training and conference participation, internal research funding, and research leadership roles for all, regardless of contract type. In terms of promotion, individual circumstances such as periods of leave for medical treatment, part-time working, and caring responsibilities are taken into consideration when assessing an application (e.g. quantity of publications).

Our three Schools seek to embed E&D in their work. Local initiatives support this. Staff returning from a period of leave are provided an opportunity to attend a conference to facilitate their re-entry in academic life (SACI). SoC covers the cost of child care to allow staff and research students to attend residential events, and ensures that on-campus meetings are held between the hours of 10.00 to 4.00 so that those with caring responsibilities participate fully. We also support particular initiatives such as the Aurora leadership development programme and have devised similar internal programmes, e.g. female mentoring in Creative Advertising (SACI). We seek to make visible our commitment to, and progress in, establishing an inclusive environment. For example, SoC has an "Inclusion Station" in Core 44. Here we celebrate our achievements, promote events, and share ideas related to E&D. In this assessment period, our E&D efforts have won external recognition. One of our UoA34 Schools secured an Athena SWAN bronze award in 2017. This work was led by **Muir**.

The support of the well-being of our staff and research students fits with efforts to develop an inclusive environment in which research can flourish. While we have enjoyed good University provision of health-related resources throughout the assessment period (covering occupational health, mental health, access to sport and fitness facilities, as well as financial well-being), these gained much greater importance when lockdown restrictions came into force in March 2020. Since then, we have been able to take advantage of enhanced University services (particularly for mental health), as well as University initiatives to make home working as comfortable as possible, e.g. a scheme to refund costs of additional furniture to set up a home office. Within the Unit we have made other special arrangements, particularly to address the issue of isolation. These have included the setting up of slots for informal video conference chats, some outdoor meetings between staff, and 'supervision' of PhD students on walks (CSI).

We have paid due regard to E&D in the construction of the REF submission for this Unit. This has been achieved with reference to the University's REF 2021 Code of practice. The membership of the Unit comprises all in UoA34 subject areas who have 'significant responsibility for research' as determined by the criteria on p. 9 of our Code. Similarly, we applied the criteria for 'research independence' noted on p. 23 when considering possible eligibility of research

fellows for inclusion in our submission. In terms of the selection of our outputs, this was made on merit following a rounded academic judgement of each potential output against the criteria of originality, significance and rigour. Final selections were informed by an anonymised computer algorithm. This adhered to processes explained in Section 4 of our Code. All staff involved in REF-related research management have engaged in E&D training.

We are confident that our processes around REF have been executed in a fair, transparent, and consistent manner. The resulting submission profile demonstrates:

- 11 men and 8 women
- A majority (14) clustered around the 45-65 age range
- A spread of grade profiles: 8 at grade 6; 7 at grade 7; 4 at grades 8-10
- 74% identifying as white, with 5% identifying as Asian, 5% mixed race, 5% 'other', and 11% unknown

3. Income, infrastructure and facilities

3.1 Income

The total income figure for the Unit in the assessment period is £479,951 as summarised below (including £9,735 in tax credits).

PhD studentships			
Funder	PI	Income in REF period (of full grant)	Project(s)
ESRC/SDS	Hall	£119,015	<i>The role of networking and social media tools during job search: an information behaviour perspective</i>
	Muir	£17,651 (£52,950)	<i>Exploring the development of innovative work behaviour of employees in multiple workplace contexts</i> <i>Metaskills maturity for future workplaces</i>
AHRC	McCleery	£108	<i>AHRC Doctoral Award</i>
Community media, participatory film-making, and performance			
Funder	PI	Income in REF period (of full grant)	Project
Royal Society of Edinburgh (RSE)	Blake	£2,031	<i>Our future Scotland</i>
Scottish Funding Council (SFC)	Blake	£4,029	
University of London	Harkins	£828	<i>Uncovering the Secrets of the Fairlight: The Device that Revolutionised Pop in the 1980s</i>
Carnegie Trust	MacLean	£5,916	<i>A disappearing Hebridean story</i>

AHRC GCRF	MacLeod	£26,364 (£93,888)	<i>Pacific community filmmaking consortium for gender and public engagement</i>
Creative Scotland	Medbøe	£6,999 (£29,000)	<i>Edinburgh Jazz & Blues Festival research project</i>
Carnegie Trust	MacPherson*	£2,063	<i>Tree fellers revisited - the interrogation of a documentary by its audience</i>
SFC	MacPherson*	£20,000	<i>Stellar Quines theatre company business model</i>
AHRC	Scott	£17,441 (£35,266)	<i>Film Bang 1976-2020: resilience and sustainability for freelance careers in the screen industries</i>
Information policy			
Funder	PI	Income in REF period	Project
AHRC	Duff	£175,465	<i>Informing the good society</i>
Carnegie Trust	Duff	£1,849	<i>Information revolutionaries</i>
Library and information science research			
Funder	PI	Income in REF period (of full grant)	Project
CILIP	Hall	£9,297	<i>Information literacy for democratic engagement</i>
RSE	Hall	£9,202 (£20,000)	<i>Research Impact, Value and Library and Information Science (RIVAL)</i>
Carnegie Trust	Webster	£8,511	<i>Social media by proxy</i>
EPSRC	Webster	£3,287	<i>dot.rural Portrait KE</i>
Cultural heritage			
Funder	PI	Income in REF period	Project
AHRC	McCleery	£38,148	<i>World War I at home</i>
RSE	McCleery	£2,012	<i>European Visiting Fellowship</i>

*Left Napier 2015

Our most significant funder is UKRI, with the largest single grant awarded by the AHRC. Also of note are our supervisor-led collaborative PhD studentships. We are currently one of the top four Scottish universities to host students on this scheme (8 studentship won in total 2014-2020), with the best performance of all Scottish universities since 2018. The six on-going studentships will continue to provide income to the Unit until 2024.

When writing bids for funding, we present strategies for generating high quality research outputs and impact. It is possible to trace a route back from these to the plans. For example, the 2019 *Journal of Documentation* paper included in our REF2021 submission is an output from an AHRC-funded project from 2011/12 included in REF2014, and **Duff's** 2017 paper in *Journalism Studies* an output from our largest AHRC grant in the current period. It is also noteworthy that we are successful in generating high quality outputs and impact on much smaller amounts of external investment, e.g. **Blake's** funding of £6,058 for *Our future Scotland* underpins one of our impact case studies.

Our strategy for generating future research income includes continuing to target funding sources with which we have previously enjoyed success, with an emphasis on New Investigator awards for ECRs. We also plan to increase our proportion of collaborative funding with other HEIs and

public bodies in the media industries. We will achieve this through taking advantage of the University's schemes to seed-fund pilot studies, mentoring less-experienced colleagues in bid writing, putting all bids through our internal peer review process prior to submission, and capitalising on improved administrative support of research at University level.

3.2 Infrastructure and Facilities

Infrastructure and facilities that support research in the Unit take two forms, staffing and equipment. Some members of the unit take advantage of investment in specialist technology and spaces required for their research (over and above standard University information services and estates).

In 2016 dedicated Research and Innovation Officers were embedded within Schools to provide focused support, e.g. research centre budget management and submission of grant applications. These Officers furnish a link between the institutional Research, Innovation and Enterprise office and the research centres, e.g. to relay institutional-level intelligence and requirements.

There has been new investment in facilities in SACI and SoC during the assessment period. In SACI £1 million has been provided to support areas of media practice (e.g. broadcasting) and practice-based research projects. For example, **Blake** has conducted research into the 'second screen' (i.e. consumers using phones and other devices simultaneously with television viewing), using new studio facilities as a testbed. Similar investment in upgrading studio and post-production facilities in music has also enabled the integration of sound facilities and music technology with film and television production work e.g. films by **Milne**.

The most important addition to the suite of SoC facilities is the technology housed in the new Sensorium lab, launched in 2017 (£30,000). This measures reactions and behaviour of people as they interact in real-time with systems and services, and has been deployed in projects on information behaviour and use (e.g. **Muir**). As well as for research purposes, we use these facilities to create artefacts to share with wider audiences, e.g. in PE, and in efforts to generate impact from our research.

4. Collaboration and contribution to the research base, economy and society

We have several arrangements in place for external academic research collaborations. These include; joint bids with other universities (e.g. **Hall** and **Brazier** – Glasgow, **MacLean** - Edinburgh College of Art (ECA), and **MacLeod** - St Andrews), and projects with other universities (e.g. **Blake** – ECA and Glasgow on *Our future Scotland*, **Scott** – Glasgow School of Art and St Andrews on Franki Raffles). We have also undertaken joint PhD supervisions (e.g. **Hall** - Åbo Akademi, Finland, and **Haynes** - Dundee).

Amongst the indicators of the success of our external academic research collaborations are; collaborative research bids awarded, joint publication ventures, visits to collaborators funded by the host institution (e.g. **Hall** to University of São Paulo Brazil in 2017), visits from collaborators funded by their home institution (e.g. CSI's Visiting Professor from McMaster University to Edinburgh), and opportunities offered by collaborators to our PhD students (e.g. Åbo Akademi facilitated data collection in Turku for an ESRC/SDS-funded student in 2017).

As outlined in 1.2.3, we work with a diverse range of research users and beneficiaries to develop impact. Just as our research has an impact on communities beyond academia, these audiences also enrich our research environment. For example, participants in the RIVAL project (**Hall**) decided part-way through its delivery that they collectively wished to generate four tangible outputs over the course of the funding period. These included a journal article and research council grant proposal.

Although it is difficult to gauge the economic contribution of our research, we can highlight where it adds value to the economy and contributes to society (over and above that documented in our

impact case studies). For example, **MacLeod's** community media projects have regenerated areas of multiple deprivation in Glasgow by helping people with mental health and age-related medical conditions to participate in their communities, and celebrate creatively the heritage and cultural life of their area.

We respond to national and international priorities and initiatives through our service on the boards of bodies involved in policy making (e.g. **Muir** – Scottish Parliament Cross-party Group on Digital Participation, **Webster** – Scottish Care), engagement in major initiatives targeted at addressing international issues (e.g. UKRI – **MacLeod** on research with indigenous communities), and by giving evidence to bodies such as Ofcom (**O'Neill** on media in the UK nations), the Scottish Government (**Blake** and **MacLeod** on cultural strategy and indicators of culture, and **Duff** on privacy and freedom of information).

We can offer many examples to indicate our wider influence, contributions to, and recognition by, the research base. All these contribute to the sustainability of our disciplines. For example, during the census period, some members of the Unit have performed editorial roles. **Atton** co-founded and jointly edited of the *Journal of Alternative and Community Media*, and four staff edited journal special issues (**Duff** - *Journal of Information Ethics*, **Harkins** – *Popular Music*; **Milne** – *Visual Culture in Britain*, **Zhou** – *Language and Intercultural Communication* and **Victoria** as book review editor for *Asian EFL Journal*).

We have also served on editorial boards (**Atton** - *Communication, Culture and Critique*, *Journalism Education*, *Journalism: Theory, Practice, Criticism*; *Social Movement Studies*, *Sociology Compass*, **Hall** - *Aslib Journal of Information Management*, *Journal of Information Science*, **Duff** - *Keio Communication Review*, **Haynes** - *Aslib Journal of Information Management*, **Medbøe** - *Jazz Research Journal*, and **Milne** - *Journal of Comparative Mythology*).

We regularly referee for conferences and journals in our fields, e.g. *ACM Conference on Human Factors in Computing Systems*, *European Journal of Cultural Studies*; *Film-Philosophy*; *IFLA Journal*; *Information, Communication and Society*; *Interacting with Computers*; *International Journal of Human-Computer Studies*; *Journal of Documentation*; *Journal of Television and New Media*; *Journalism Practice*; *Journalism Studies*; *Media, Culture and Society*; *New Media and Society*; *Participations*; *Popular Music*; and *Rock Music Studies*. We review book proposals and manuscripts for publishers such as Bloomsbury, MIT Press, Oxford University Press, Palgrave Macmillan, Sage, and Routledge.

We have been involved in the organisation of major international conferences as programme committee members. Amongst these are the *ASIST Annual Meeting* (**Hall** – also papers co-chair, 2015), *European Conference on Information Retrieval* (**Brazier**); *International Association for Languages and Intercultural Communication Conference* (**Victoria**, **Zhou**); *International Conference of the Project Network for the Study of Progressive Rock* (**Atton**); *International Society for Knowledge Organization Conference* (**Haynes**); *International Workshop on Personalisation and Adaptation in Technology for Health* (**Webster**). Alongside these duties we have served as programme committee members and organisers for numerous other events at national and local levels, from conferences (e.g. **MacLeod** - *Media, Communication and Cultural Studies Association Annual Conference*) to single-day symposia (e.g. **Harkins** - *Sustainable sounds: interrogating the materials of music making technologies*).

In terms of supporting research funding processes, in the current REF period we have provided input to grant-awarding bodies such as the Carnegie Trust for the Universities of Scotland, the Leverhulme Trust, Social Sciences and Humanities Research Council Canada, and UKRI (AHRC, EPSRC, ERSC). Duties have ranged from refereeing grant applications (e.g. as UKRI peer review college members), to service on award panels, including chairing.

Our research expertise has been acknowledged in several invitations to present keynote speeches at high profile international conferences. In the census period we accepted invitations

at; *ASIST Annual Symposium on Information Needs 2016* (**Hall**), *EuroIA 2016* (**Duff**), *International Conference on Progressive Rock* (**Atton**); and *Qualitative and Quantitative Methods in Libraries* (**Hall**). We have also served as keynote speakers at national events (e.g. **O'Neill** - Association for Media Education Scotland), and have accepted other numerous invitations to speak, e.g. at in-house events at other universities (e.g. **Sellors** - Polish National Film, Television and Theatre School).

We are involved in collaborative postgraduate research student training through membership of the SGSAH and SGSSS, in particular through CSI's involvement in the DTP of the latter. As well as contributing to training provision, our work with the SGSSS in the current REF period involved contributing to the £19 million recommissioning bid in 2015 (**Hall**) and service on various SGSSS committees (**Hall, Muir**).

Members of our Unit have been recognised for their influence on the research base in the award of major prizes (e.g. **Hall** – Jason Farradane Award 2016), profiling by national bodies (e.g. **Webster's** research was included in EPSRC's 'Decade of success' in 2019), invitations to serve as award judges (e.g. **MacLean** - Film G and Royal Television Society New Media Awards, **MacLeod** - Royal Television Society Scotland Awards), memberships of prestigious bodies (**Blake** – RSE Young Academy of Scotland, and **Hall** – elected RSE Fellow 2017), and external appointments (e.g. **Hall** - Docent in Information Studies at Åbo Akademi, member of REF2021 sub-panel 34).