Supporting Newcomers to Inclusive Design Research

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Abstract
In order to achieve a truly inclusive society there is a major requirement for the rapid development of many more researchers in the field of inclusive design and in related disciplines. SPARC set out to attract new academic researchers into these fields and to support them with pump-priming research funds, mentoring and advice as well as access to prestigious platforms for presenting their work and assistance with writing publications for non-academic audiences. SPARC supported 15 design-related projects of which nine were strongly orientated towards inclusive design. The support given to the project leaders and their teams provided significant new experiences of the environment of users and beneficiaries of research and useful additional experiences of working in the academic environment.

Keywords
New researchers, support mechanisms, funding, presentations, advocacy

Introduction
Participants at previous Include conferences will be familiar with the unfolding story of the support to inclusive design research provided by EPSRC, the main UK government agency for supporting design and engineering research. The EPSRC EQUAL Initiative which commenced in 1997 provided significant funding for the development of inclusive design research in the UK, not least for the i-design project, but more generally for design and engineering-based ageing and disability-related research (Lansley, 2001, 2005; Lansley and Smith, 2003, 2007). Linked to EQUAL was a small network activity which promoted the EQUAL projects and similar research supported by other agencies to all interested parties through workshops and seminars, as well as undertaking active lobbying of policy makers and influencers.

At Include 2007 a new initiative was described. This was SPARC which was funded by EPSRC and its biological counterpart, BBSRC, and ran from January 2005 to December 2008. It built heavily on the experience of the EQUAL Network. SPARC, added another dimension, the ability to award funding to pump-prime the research of early career academics in fields of design, engineering and biology who wanted to engage in ageing-related research, as well as to assist experienced academics from other fields who wanted to move into ageing research.

SPARC was one in a series of initiatives aimed at encouraging more academics into ageing and disability-related work and at the same time helping them to recognise the importance of users and beneficiaries and to accord them a central role in their research activities. Even for those researchers involved in molecular biology there is much to gain much from understanding the priorities of older people, especially of...
how such research might contribute to future developments which could contribute to better health and quality of life.

**SPARC Awards Scheme**

In its first 18 months SPARC made two calls for research proposals from newcomers to ageing research. It received nearly 200 applications and was able to fund 34 projects, although there were another 20 which were worthy of funding. The value of the awards ranged between £17,000 and £60,000 and the projects lasted between six and 18 months. Nine projects were clearly concerned with inclusive design (for example, home design, workplace design, urban design, packaging, user interfaces, vehicle design) and a further six more generally with the design of the built environment. This is a high proportion given the number of disciplines and areas covered by SPARC. All projects with a design and engineering rationale were multidisciplinary, collaborative and user-focused, as were most of those in the middle ground combining engineering and biology. Four of the research teams involved with inclusive design projects will be presenting at SPARC workshop at Include 2007. However, as their work has moved forward since their SPARC projects finished some will spend rather more time on their current work.

**Other Support**

The support for award holders went further than just funding. They were provided with advice from more experienced researchers and the directors, were invited to appoint mentors, encouraged to attend meetings of award holders and to present their activities at SPARC workshops. Some workshops were held abroad, in which case they were academic affairs, but typically they were in the UK and involved a varied audience of academics, practitioners, representatives of charities, government and industry, and older people and their carers.

Award holders were also provided with support in developing accessible lay summaries of their work. Those whose work caught the eye of the media also benefited from further exposure usually in the technical press but on occasion in the national press, sometimes internationally. So, the essence of SPARC was to fast-track the award holders and their teams to a situation where they could operate as independent researchers in the field of ageing, aware of the broader context of ageing research and capable of securing major awards, so developing the number of researchers in the field and the quality of the work being undertaken.

During the course of SPARC each of the projects was presented at a SPARC workshops open to all comers, some of them several times. As well as award holders, the workshops also involved established leading scientists and practitioners, leading to events which were not only authoritative but at the leading edge of research or application. The workshops became highly regarded and very popular especially with practitioners and the voluntary sector. Typically at least 60% of those attending an all-comers workshop were not researchers but professionals and older people. However, proportions varied according to the focus of the workshop and its location.

The workshops were hosted and sponsored by a range of organisations, including universities, industry, professional bodies, some government organisations and other professional networks. Some attracted prestigious figures, such as, HRH The Princess Royal, the Ministers for Older People for both Wales and Ireland, which in turn led to significant media coverage and opportunities for award holders to discuss.
their work with journalists. Seven workshops, as shown in Table 1, were specifically concerned with design but most of the other workshops contained sessions on design issues.

Table 1: SPARC workshops concerned with design

<table>
<thead>
<tr>
<th>Title</th>
<th>Host/Collaborator and Location</th>
<th>Date</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and Development in Long Term Care</td>
<td>CCC, The Guildhall, City of London</td>
<td>January 2006</td>
<td>80</td>
</tr>
<tr>
<td>Design for Older People</td>
<td>Bugatti Institute, Coventry University</td>
<td>February 2006</td>
<td>85</td>
</tr>
<tr>
<td>Transport and Older People</td>
<td>Institute for Transport Studies, Leeds University</td>
<td>October 2006</td>
<td>80</td>
</tr>
<tr>
<td>Health, Workplace Design and the Older Worker, Outdoors - a step too far? Older People and Mobility</td>
<td>TAEN &amp; Help the Aged, London</td>
<td>January 2008</td>
<td>76</td>
</tr>
<tr>
<td>Older People Going Places</td>
<td>SURFACE, Salford University</td>
<td>May 2008</td>
<td>68</td>
</tr>
<tr>
<td>Design Research and its Applications for Ageing Populations</td>
<td>Glasgow School of Art, Glasgow</td>
<td>November 2008</td>
<td>72</td>
</tr>
</tbody>
</table>

Other Activities
In total SPARC ran 47 workshops of which 25 were for all-comers, five for older people and the rest were largely for the scientific community. Over 3200 people participated in these, from all walks of life. Typically at all-comers events non-academics predominated. The reviews of the events were extremely positive. Largely as a result of these successful workshop membership of the SPARC network quickly grew to nearly 2000 members.

As a service to SPARC award holders, network members and others interested in ageing research SPARC also maintained a very active website. This contained news items about SPARC and the state of ageing research in general, much information about SPARC projects including downloadable copies of executive summaries of and interviews with team members of most projects, workshop presentations and guides to research funding organisations, current funding opportunities and lots more.

Finally, SPARC engaged in very active advocacy for older people and the role of ageing research, leading to a large number of opportunities to meet policy makers, to address prestigious gatherings and generally to raise the profile of what was appreciated as a very pragmatic and performance driven approach to ageing research.

An Assessment
Shortly before the end of SPARC the award holders were surveyed for information about their achievements during and after their projects, especially those which related to ageing research. Although many had only just completed their SPARC projects most had been successful in one way or another in securing follow-on funding, and in publishing and presenting their work, often to a range of audiences. To some extent this would have been expected. However, it was important to distinguish exactly which of their achievements could be attributed to SPARC and which were more appropriately attributed to the efforts of the award holders on their own account, wholly or largely unaided by SPARC. This is illustrated in Figure 1 which distinguishes the extent to which these activities of the award holders took
place in two distinct environments. The first is that which would normally be associated with academic interests and activities in ageing fields, and the second, that associated with interests and activities of the many other non-academic stakeholders in ageing issues.

![Diagram](image)

Figure 1: Number of SPARC teams with certain achievements in relation to academic and other stakeholder environments attributable to Own Account or to SPARC

The figure shows that SPARC had played a significant role for about half of the teams which had secured follow-on funding in terms of gaining support from bodies which fund academic research and from other bodies (the latter is defined as those non-academic organisations with a strong focus on particular health or society-related issues faced by older people, such as JRF and BHF, as well as central and regional government organisations). SPARC also supported a similar proportion of award holders by providing platforms for presentations to academic audiences and for even more to non-academic audiences, and to some extent it played an important role in introducing the research teams to international audiences, a wholly academic activity. It did not contribute significantly to the publishing of academic papers, that is a basic activity of all researchers which probably would be accomplished anyway, but in all cases the development of materials for non-academic audiences was achieved only through SPARC. Surprisingly even the more experienced researchers had not produced such materials before becoming involved with SPARC. Similarly SPARC introduced about a third of the award holders to the press and media, a relationship which none had enjoyed beforehand.

Of the 34 award holders or their teams, 20 had successfully secured substantial follow-on research funding, 12 of which were as principal investigators and the others as co-investigators on major projects, whilst others had secured minor awards. The total funds secured by December 2008 amounted to nearly £10m of which half was clearly attributable to the development enjoyed by the award holders through SPARC. This compares favourably with £1.25 invested in the SPARC awards or the £1.8m total cost of SPARC. Of the follow-on funding about £4m had been secured by those 15 teams concerned with design, including inclusive design research. Of this approaching £3m could be attributed to the support given by SPARC.
The contribution made by SPARC can be illustrated in another way, for example by considering the project teams individually. Figure 2 has two dimensions scored on a nought to four scale.

1. The academic dimension – reflects the experience of award holders of the academic environment and is measured through four indicators each scored on a presence (1), absence (0) basis. These are: receipt of research funding from academic bodies, academic publications, academic presentations, and presence in international academic networks.

2. The other stakeholder dimension is measured in terms of: receipt of research funding from non-academic bodies, publications for non-academics, presentations to non-academics, and involvement with the media.

All of these are measured in relation to the ageing research activities of each project team; firstly, in terms of those achievements which can be attributed to the efforts of the teams (on their own account) and, secondly, including the influence of SPARC (overall). This leads to two measurements for each team: on own account and overall. These are shown in two separate figures where it is possible to see the extent to which SPARC has moved the research teams from having experiences largely of academic environments to a combination of experiences of both the academic and the other stakeholder environment.

The contribution of SPARC has been to enhance the experience of the award holders of the two environments. When judged by what they were able to achieve on their own account, their experience was largely the academic environment. With SPARC influence this moved to experience of both academic and other stakeholder environments.

The degree of SPARC support for those involved with inclusive design projects is similar to that for those involved with general design issues, and more than for those involved with biological and bio-engineering projects, with SPARC being more successful in helping these award holders to experience a better and more complete balance of both environments. In part the SPARC support compensated for the lack of experience of the project teams, since most were in early career, and provided an accelerated experience of ageing research, although there were some award holders who were mature researchers who had similar profiles to those with little experience.

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![Figure 2: Experience of SPARC teams of the academic and other stakeholder environments: comparison between indices for 'own account' and 'overall'.](image)

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The diagrams illustrate the comparison between indices for 'own account' and 'overall' for academic and other stakeholder environments.
The award holders have reported that these experiences were wholly beneficial to their development. These experiences have brought them into contact with a broader range of supporters, potential collaborators and funding opportunities, and have significantly enhanced their understanding of the context of their work and hence their confidence for working with a variety of interest groups in what all now appreciate is a highly complex field in which to operate.

Conclusion

Although modestly funded, SPARC proved wholly successful in providing award holders and their teams with a broad range of experiences and exposure to a variety of communities of interest necessary to the development of a deeper understanding of the nature of an inclusive society and the context of inclusive design. It achieved this largely because of the support of these communities. These continually affirmed their commitment to encouraging activities in the field of inclusive design, not least through their enthusiastic involvement in SPARC workshops. The vehicle for making this happen was the funding available to pump-prime the research of newcomers and the organisation necessary to ensure that this work and that of SPARC as a whole was professionally presented in all of their activities and outputs. SPARC showed that it is not appropriate to assume that pump-priming projects will achieve little and thus will be of limited interest to those outside the academic world. Even though their role was essentially formative, in the sense of helping individuals find a place in the world of ageing research, some projects were rated very highly by both academic and non-academic assessors. Some have attracted a great deal of attention and their findings have been adopted by practitioners and policy makers.

Whether SPARC will have a lasting influence remains to be seen, but it has been more than a rallying call for more investment in inclusive design, as it has been able to demonstrate new standards and expectations of even very small projects and of the relationship between researchers and users and beneficiaries of research.

References


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