The Software Sustainability Institute Fellowship Programme

Supporting the social side of research software

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Reproducibility, capability building, version control, testing, documentation, big data, data science, data management, expert coding, the list goes on. However it is the social side of software sustainability that allows the increase of capabilities and practices to permeate different research teams and domains thus supporting the culture change required for better computational research. In this paper we describe one of the mechanisms run by the author, who is the Community Lead at the Software Sustainability Institute, to help support the social side of research software; the Institute's Fellowship programme.

Index Terms—fellowship, social, software sustainability, workshops, events, culture change.

I. INTRODUCTION

The aim of the Software Sustainability Institute [1] is to help establish better research through superior software. This can only be done by engaging with researchers, software developers, funders, managers, publishers and other social actors in the sphere of computational research. There are varying degrees of engagement with those in the community; the strength of the engagement often depends upon expectations and commitment of those who are engaging.

For those with a stronger connection to their communities, to research software and to promoting such activities, the kindred spirits of 'better research, better software' the Institute established the Fellowship programme to help create a network of like minded individuals who are committed to improve practice in the domains they care so deeply about.

II. THE FELLOWSHIP PROGRAMME

The Fellowship programme [2] offers a stipend of £3000 for successful fellows to use over 15 months for events and activities they planned in support of research software during their Fellowship application. They are able to use this for all types of events such as attending conferences, catering for a Software Carpentry Workshop [3], bringing in a guest speaker for an event and organising their own workshops.

Three independent reviewers review fellow's applications. A typical selection round will have around 15 places with 8 applications for each place. We have a panel of 18 reviewers (11 of which are existing Fellows) each doing about 20 reviews each during shortlisting. By the time Fellows applicants make the shortlist we are at around two candidates for each place. The next stage is the selection day [4] where a group of around seven judges assess presentation and interaction skills of the applicants.

Once Fellows have been selected they are announced, added to mailing lists and they are given an entry on the Fellow's profile pages [5]; at the time of writing the network of Fellows has grown to over 75 in number and includes a huge variety of domains including but not limited to digital history, social science, remote sensing, epidemiology and high performance computing.

Some of the successes of the Fellowship programme have been organising events that help form new interdisciplinary working; e.g. bringing together statisticians and clinical researchers [6] and paper hackathons in the life sciences [7]. Also Fellows have combined funds to run events, an example of this was the Software Research Town Hall [8] at the Annual Geophysical Union (AGU) in 2013 which was put together by four Fellows and one Institute staff member; the AGU attracts over 25,000 attendees, whereas only a small portion would have attended the Town Hall, many more would have seen this in the programme. Fellows have also been key in defining, organising and leading the space of Research Software Engineering [9]; the current co-chairs are both Institute Fellows. In total Fellows have attended or organised over 150 events and this excludes their attendance at Institute workshops [10] in their inaugural year.

Fellows really appreciate the opportunities that the Fellowship has given them with a number of them commenting on how it has allowed them to keep their posts, get new jobs, make new collaborations and become the go-to person for improved computational practice in their research groups. They have also gained insights into improving the running of events. It offers them the opportunities to build the skills to be ambassadors to their research domains to improve the place of software in research and highlight the issues that need supporting.

III. CONCLUSION

In this paper we highlighted some of the facets and benefits derived from supporting the research software community with the Fellowship Programme. What on the face of it seemed like a simple grant mechanism has transformed into a supportive network of research software specialists who understand the issues in research software and act as ambassadors for better software practice to help bring about the culture change required to establish 'better software' as the norm for 'better research'.

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