ORCID Provocation

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What is ORCID?

ORCID (Open Researcher and Contributor ID) is an open, non-profit, community-driven initiative to create and maintain a registry of unique researcher identifiers and a transparent method of linking research funding, research publications, research data and indeed any other research outputs to these identifiers.

Embedded ORCID identifiers in critical research system workflows (e.g. funding, publishing, reporting...)

- make it possible to track a researcher’s contributions across their career with greater precision
- provide greater transparency of funded research and associated outputs.

This information, when aggregated, can improve understanding of global research resource flows, and is thus vital for funding agency gap analysis and strategy.

ORCID provides two core functions:

1. a Registry from which researchers can obtain a unique identifier and in which they can manage a record of their activities and search for others;
2. APIs that support system-to-system communication and authentication.

The ORCID Registry is available free of charge to individuals. Over 1 million researchers globally have registered an ORCID and the Registry currently has around 45K researcher profiles associated with a '.ac.uk' email account.

For a subscription fee, organisations may become members of ORCID. This allows them to link their records to ORCID identifiers, to update ORCID records, to receive updates from ORCID, and to register their employees and students for ORCID identifiers. Member organisations can use the ORCID API to authenticate ORCID users, ensuring that people can be reliably identified across different systems.

ORCID has a broad institutional membership, including publishers, research organisations and libraries. In 2013, a broad group of UK research sector bodies including RCUK, HESA, HEFCE, the Wellcome Trust¹, ARMA, UCISA and Jisc issued a joint statement in support of the ORCID initiative, and UK members currently include e.g. 13 Universities, the Wellcome Trust and the Royal Society of Chemistry.

A further 10-15 UK HEIs have expressed an interest in becoming ORCID members, and Jisc is considering negotiating a UK consortium membership which would allow universities and funders to become ORCID members at greatly reduced rates. Jisc will shortly consult with universities about their interest in joining Jisc led ORCID consortium membership².

¹ Other funding organisations that have integrated ORCID identifiers into their systems include the US National Institutes of Health and the US Department of Energy. Some funders now mandate use of ORCID identifiers during grant submission, including FCT (Portugal), SFI (Ireland), FWF (Austria), Autism Speaks (US), SRC (Sweden).
² http://orcidpilot.jiscinvolve.org/wp/2015/02/03/next-steps-for-oriad-adoption-oriad-consolidation-membership-for-the-uk/
The Wellcome Trust has integrated ORCID identifiers into its eGrant online application system and is considering mandating ORCID identifiers for its grant holders.

Why ORCID is important to RCUK

Understanding the outcomes and impact of research funding is essential to Research Councils in making the case for sustained Government funding of research, as well as being a vital input into funding strategy and programme design. However, identifying and tracking the outputs and outcomes of awarded funding remains a significant challenge.

A major reason is that details of research outcomes have to be collected from many thousands of researchers working in well over 100 research organisations; this is further complicated by the collaborative nature of research, which makes it inevitable that many outcomes are recorded multiple times by multiple organisations. Unless unique identifiers are used it is simply not possible to effectively disambiguate names or deduplicate records of the same outcome that employ multiple variations in spelling etc.

At present, while the Research Councils provide unique identifiers for grants, and most publishers provide unique identifiers (usually DOIs\(^3\)) for most publications, the adoption of 3 unique universal person identifiers is not yet widespread. ORCID is important because it provides a credible route to address this challenge. The efficiency savings that could be realised across the sector are very substantial indeed. Many thousands of hours are wasted annually due to the need to manually gather, re-enter, check and reconcile research outcomes data in one system that are already present in another. Reporting to the Research Councils the research publications arising from individual projects is estimated to cost £0.4m annually\(^4\), but this is only a relatively small example - the true figure is substantially higher.

Imperial College London estimates that adoption of ORCID, coupled with effective sharing of article level data through the submission - acceptance - publication - deposit process, could save the organisation several FTE annually just by reducing the need to manually assemble, enter and check article level data for compliance with the HEFCE Open Access requirement and publisher embargos in general. These estimates are borne out by the return-on-investment work undertaken as part of the HEFCE funded RMAS project, which estimated approximate potential savings of £500 per academic per year through the use of integrated research information management systems; ORCID is necessary to enable these savings\(^5\).

It is important to realise that the full benefits of embedding ORCID identifiers in RCUK workflows will not be realised unless they are likewise embedded in publisher and research organisation workflows. At the time of writing more academic publishers are

\(^3\) Digital Object Identifiers (DOIs) are routinely assigned to electronic publications, whether journal articles conference papers, book chapters, books, etc.

\(^4\) There are inherent and unacceptable risks to quality if overlapping data without unique identifiers is drawn from different sources. This means that despite large numbers of research outcomes already being recorded in individual research organisation systems, they must be re-entered more-or-less manually into Researchfish (the harmonised outcome reporting system adopted by the Research Councils in 2014). It is estimated that re-entering into Researchfish data about publications arising from Research Council grants costs the taxpayer at least £0.4m per year (20k new papers published annually; 10 minutes each to gather, enter and check; £120/hour academic staff time cost).

\(^5\) Y Wang, S Kerridge, P Smith, S Foster, S Coppin & S Trowell (2011) Integration of CERIF, ESB and Cloud in the Development of a National Global Research and Administrative Management System, in Metadata and Semantic Research, MTSR 2011, Izmir, Turkey
engaged, as members of ORCID, than UK academic institutions\textsuperscript{6}. Many in the research community feel it would be appropriate for RCUK to adopt a leadership position in the Research sector by initially enabling and eventually, with due advance notice, requiring use of ORCID identifiers by grant applicants and other active Je-S account holders\textsuperscript{7}. In this respect it should be borne in mind that HEFCE\textsuperscript{7} are known to be considering requiring an ORCID for each researcher submitted to the next REF (anticipated but not confirmed for 2020; if introduced, such a requirement would naturally be announced much sooner). It is also relevant that HESA have already included ORCID identifiers as an optional field in the staff record\textsuperscript{8}.

RCUK has already accepted the need to integrate ORCIDs into the research grant workflow: with the full support of Grants Governance Group (G3) support a ‘request for change’ to enable submission and storage of ORCID identifiers for all individuals engaged in the research process\textsuperscript{9} was submitted to UKSBS in early April 2014. A follow-up meeting was held with UKSBS in July 2014 but progress since then has been negligible due to competing priorities. Proposed work to upgrade the Je-S system may be a good opportunity to introduce the change, but may also add complexity and delay.

**ORCID Benefits to the UK academic sector**

ORCID has the potential to significantly improve the quality of research information as well as to enable substantial cost savings in scholarly communication and the collection and management of research information. Benefits include:

- Using ORCID, researchers can maintain a public profile, including CV and research grants, across their career with no additional costs. Where publishers already support ORCID, this profile is automatically updated with new publications. As ORCID can be integrated with institutional systems, this benefit also applies to researchers with profile pages at their host institution.

- ORCID make researchers uniquely identifiable even if they change name and employer

- ORCID disambiguates researchers with similar names or names subject to frequent misspelling, thereby increasing the quality of research information.

- ORCID enables more efficient exchange (and de-duplication) of information between institutions when academic staff move from one employer to another.

- ORCID offers the prospect of a ‘round trip’ technical approach that, when fully supported by publishers, could provide research organisations with automated notification (including details of embargo period) when a research article is accepted for publication. Imperial College London estimates that ORCID could save them several FTE annually for management of publications and meeting the open access requirements of the next REF.

\textsuperscript{6} At least 51 publisher organisations are currently members of ORCID, including Elsevier, Wiley, Springer, PLOS, RSC, Taylor & Francis. UK University members include Aston, Brunel, Northumbria, Oxford, UCL, Birmingham, Cambridge, Glasgow, Kent, Manchester, Southampton, York and Imperial College.

\textsuperscript{7} RCUK could mandate provision of an ORCID for each named researcher on a grant application and by persons updating their Je-S account details, and enable this through use of the ORCID API to embed automatic lookup/retrieval of information held in the ORCID database.

\textsuperscript{8} RCUK could mandate provision of an ORCID for each named researcher on a grant application and by persons updating their Je-S account details, and enable this through use of the ORCID API to embed automatic lookup/retrieval of information held in the ORCID database.

\textsuperscript{9} Collection of ORCID identifiers would be as suggested in footnote 7 above.
ORCID Benefits to RCUK

- Using the ‘round trip’ approach mentioned above, RCUK could receive data from the ORCID registry that would identify RCUK-funded articles (where publishers have updated the ORCID public profile with that information) before or close to publication.

- Where full ‘round trip’ functionality is not available, integration of ORCID into the collection of research outcomes offers several benefits
  
  o where many individuals (e.g. students) are supported by block grant funding, if the Research Organisation links the student ORCIDs to the block grant it will be possible to assign the students’ publications to the same block grant.

  o attribution of published outcomes which include author ORCIDs and which acknowledge RC funding, but which do not include a valid grant reference number, becomes easier: the RO could upload such publications to the author's account (based on same ORCID), and the author could then assign (or not) to a grant in their RF portfolio.

- RCUK would be able to track - and hence claim some credit for - the research outcomes of investigators whose early careers were supported by Research Council grants but who may since have received most of their funding from other sources.

- Enhanced reviewer selection opportunities, and improved data quality on the Gateway to Research, both enabled through the ability to match and disambiguate funded researchers with article authors.

- Enhanced ability to link non-publication research outputs to RCUK grant funding

- Improved ability to match researchers (including doctoral students) in RC databases to other records (e.g. HESA students and staff record; EThOS (British Library Electronic Thesis database).

- Identification of which other funders are supporting RCUK-funded researchers to improve understanding of the UK research landscape (also important in the context of who is contributing to Open Access charges).

- Embedded ORCID identifiers in the equipment.data.ac.uk database (managed by the University of Southampton) will help identify outcomes and impact arising from research facilities and equipment.

- The ability to track researchers as they change employers will improve understanding of how researchers’ careers develop, including those who leave higher education

Suggested Actions

RCUK should make it a priority to engage proactively with ORCID, the academic sector, publishers and other relevant bodies such as Jisc to support ORCID uptake and systems integration in order to realise system-wide efficiencies for the the benefit of the UK taxpayer.

In particular:
1. RCUK should become a member of ORCID.

2. RCUK should, as soon as practicable, enable optional capture of ORCID iDs on grant applications and, from a date to be announced, should require ORCID iDs for all staff listed in grant applications. This requirement should be subject to advanced public notice of at least 12 months and should ideally be introduced 1 year after optional capture of ORCID is enabled on grant applications.

3. Capture of ORCID identifiers by any RCUK system should by default make use of the ORCID API to ensure the integrity of the data captured.

4. RCUK should support integration of ORCID in the outcome collection process so that records linked to individuals identified in RO systems can be unambiguously matched to records linked to those same individuals in e.g. the Researchfish system.