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ORCID Working Group

SWITCH has published its call for participation in working groups in July 2014 as described on http://projects.switch.ch/eduid/working-groups/.

The ORCID working group consists of seven volunteers from different institutions, mainly from libraries. The names of the individual participants and their inputs can be seen in the institutional reports in chapter 3.

Goals of the working group are:

- Describe current and possible future use of ORCID at institutions
- Describe processes for integration at institutions & possibilities of ORCID provisioning for institutional processes
- Provide input for further project steps/pilots (call 15.2.2015)

The working group has met October 16 2014 in Berne (hosted by SNF). During the workshop the participants have exchanged their experiences and plans. This input was collected and a draft report prepared by SWITCH. The participants provided feedback that has been integrated in this report. Figures in the institutional reports have been added by the particular group member.

The working group was moderated by Rolf Brugger (rolf.brugger@switch.ch) and the report edited by Petra Kauer-Ott (petra.kauer@switch.ch) and Rolf Brugger.
1 Summary

1.1 Relevance of ORCID

ORCID – the Open Researcher and Contributor ID - is a new personal unique identifier for researchers/authors (operational since Oct. 2012)\(^1\). ORCID has not been widely adopted yet. Ca. 5% of researchers worldwide have generated an ORCID and do actively indicate it\(^2\) while publishing.

In contrast to common identifiers used so far ORCID follows a user-centric approach with users actively producing and using/sharing the identifier. There is no other author identifier in use at a global level with the same scope. For institutions, and particularly libraries the use of ORCID is a challenge because this identifier is not fully under their control and it is limited to living persons. Nevertheless librarians see a potential for eliminating ambiguous information and duplicates by using ORCID in the future.

Institutions as universities and libraries of Swiss Higher Education Institutions (HEI’s) show interest in using ORCID or do already implement it with some of their systems.

1.2 Institutional status and plans

A) ORCID project plans (UZH, ETHZ, SNF):

The three institutions will soon present project plans for use/further use of ORCID within their systems. Those may be candidates for pilots.

- **ETHZ**: ORCID Create & Link Wizard (possibility to link ORCID iD with ETHZ person database; validation process)
- **SNF**: Access MySNF with Swiss edu-ID; attribute import from Swiss edu-ID and ORCID
- **UZH**: New IdM (including UZH unique identifier); ZORA-ORCID linking (data consolidation; quality control done by the user)

B) Minimal ORCID implementations (MDPI, University library Bern):

Two organizations have already realized a minimal implementation of the ORCID. They try to make best usage of ORCID but have not many resources. They observe the further development of ORCID.

- **UNIBE library**: Would like to render services to the customers with automatically updated data in BORIS and ORCID (with use of push messages).
- **MDPI**: Current usage of ORCID for facilitation of billing at institutions. Would appreciate improvement of validation processes for email address etc..

C) No plans (ZB, UNIGE):

Two other organizations are not planning immediate projects or implementations. They first evaluate in which areas ORCID has a relevance (compared to other identifiers) and possible usage of it.

- **UNIGE**: No early adopter of ORCID because of few advantages. Continues to use own UNIGE identifier but will store ORCID of authors when known.

\(^1\) [http://www.orcid.org](http://www.orcid.org)

\(^2\) According to experiences of MDPI reported Oct. 16 2014
• **ZB:** Linking between GND and ORCID would be beneficiary. Swiss edu-ID could help to improve access management and control. Attribute matching and early use of identifier are essential.

### 1.3 ORCID and Swiss edu-ID

In spite of the possible benefit by using ORCID it’s not very likely that dissemination will increase very fast because of missing resources and few funding possibilities for broader integration projects. Nevertheless, ORCID has the potential to become a new international standard for active author identifiers and should therefore be considered as **valuable addition of the Swiss edu-ID**.

An added value of an ORCID integration into Swiss edu-ID for libraries would be the possibility to have secure access to an already **validated ORCID** of a user. An **increased trust** would also help to increase the acceptance of ORCID.

The Swiss edu-ID architecture describes and defines how to link different identities. ORCID is of special interest because it is an identifier for researchers. ORCID can be integrated into tools and applications and may therefore be of interest for the users.

Swiss edu-ID would work also without ORCID since it has its own identifier, and the ORCID can be included in Swiss edu-ID as mandatory or optional attribute.

**Advantages of ORCID:**
- **Global standard:** New public and standardized (unique) persistent author identifier with potential for higher diffusion within HEI’s.
- **Initiative with broad support** of universities, research institutions, publishers, academic societies and commercial companies.
- **Researcher focus:** Linking to an identifier related to research activities (publishing, grants etc.) could open up usage of Swiss edu-ID for additional applications.
- **Availability:** The identity information is available on the web and via interfaces (for member organizations).
- **Usability:** A new identity is easy to be generated (by the individual or by an institution) and doesn’t need to be be memorized as it is linked to an email account.

**Constraints of ORCID:**
- **Diffusion:** User base is not yet very large; only few Swiss HEI’s are ORCID members (UNIBE, CERN).
- **Scope:** ORCID is an identifier intended for living authors only.
- **Duplicates:** The system does allow and does not offer mechanisms to prevent duplicates, but merging is supported).
- **Use:** Often users don’t remember or know that they already have an ORCID e.g. if publishers create ORCIDs on behalf of their users.
- **Trust:** A self-registration process without verification may create insufficient trust (especially if money is involved).
- **Print version:** A standard to expose ORCID on papers is missing.

**Requirements for Swiss edu-ID in relation to ORCID:**
- **Uniqueness:** avoid/eliminate duplicates and link only one valid ORCID to Swiss edu-ID (initiate process to merge accounts; there is a merge mechanism in ORCID)

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3 [http://projects.switch.ch/eduid](http://projects.switch.ch/eduid)
- **Relation**: keep relationship with the user active (danger of neglect and duplicates).
- **Validation**: offer support for validation/verification processes for ORCID and provide trustful information.
- **Attributes**: deliver helpful mandatory attributes.
- **Privacy**: protect personal profile data.
- **User-centrism**: favour self-registration of users

1.3.1 Possibilities for Swiss edu-ID ORCID pilots & further actions

The three institutions ETHZ, SNF and UZH have presented ideas how they would like to integrate ORCID.

Most promising are approaches to access systems with Swiss edu-ID and to validate ORCID on the basis of functions and processes provided by the Swiss edu-ID.

2 ORCID and other author identifiers in the library environment

2.1 Libraries versus Repositories

There are clear differences between e-print repositories (1\textsuperscript{st} literature, articles, papers etc.) and the library catalogues (3\textsuperscript{rd} literature, books):

1\textsuperscript{st} Literature = „Articles“
- **Workflow**: Submitter $\rightarrow$ Reviewer $\rightarrow$ Deposit
- **Record Format**: governed by publisher format
- **Access**: Search, Search, Engine Index

3\textsuperscript{rd} Literature = „Books“
- **Workflow**: Librarian
- **Record Format**: Cataloging rules (long established)
- **Access**: Search, Index by Authority Files (Librarian)

IDs in the library environment:

<table>
<thead>
<tr>
<th>ID</th>
<th>Region Authority</th>
<th>Properties</th>
<th>Registration</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORCID</td>
<td>Global</td>
<td>unique, persistent</td>
<td>self</td>
<td>establ.</td>
</tr>
<tr>
<td>Swiss eduID</td>
<td>CH</td>
<td></td>
<td></td>
<td>Project</td>
</tr>
<tr>
<td>UZH ID</td>
<td>UZH</td>
<td>persistent?</td>
<td>self</td>
<td>Pre-Project</td>
</tr>
<tr>
<td>Scopus Author ID</td>
<td>Scopus</td>
<td>persistent?</td>
<td>Elsevier</td>
<td>establ.</td>
</tr>
</tbody>
</table>

Fig. 1: Comparison of IDs (M. Brändle, UZH)
2.2 Open Researcher and Contributor ID ORCID

The Open Researcher and Contributor ID ORCID provides identifiers for authors ([http://orcid.org/](http://orcid.org/)). It is especially designed for researchers and the aim of the ORCID organization is to solve name ambiguity problems with the provided central registry. ORCID can support linking of IDs and therefore enhance the scientific discovery process and improve the efficiency of research funding and collaboration within the research community.

The registration of unique personal identifiers is possible since October 2012.

Everyone can create an ORCID. Current status of usage can be seen at [https://orcid.org/statistics](https://orcid.org/statistics) (nearly 1 Mio. ORCIDs, but only 185'000 of them are connected with work).

The ORCID iD is a URI with a 16-digit number that is a subset of the ISO Standard (ISO 27729; International Standard Name Identifier ISNI). Initially ORCID iDs will be randomly assigned by the ORCID Registry from a block of numbers that will not conflict with ISNI-formatted numbers assigned in other ways. ORCID iDs always consist of 16-digits; they can not be shortened to remove leading zeros if they exist. The last character in the ORCID iD is a check sum.

The ORCID iD is expressed as a **HTTP URI**; the number is preceded by "http://orcid.org/".

The identifiers were designed to be usable in situations where personally-identifiable information should/can not be shared and no information that can change over a person's
career is embedded in the iD like country or institution (cf. http://support.orcid.org/knowledgebase/articles/116780-structure-of-the-orcid-identifier).

**Dispute procedures** are foreseen for verification and correction of ORCID data.

Organizations as research institutions and funders, publishers and associations can become **ORCID members**. Members have access to ORCID APIs. This allows for example the registration of new users or editing of ORCID data and linking to other IDs and registries.

(see also Interview with Laurel Haak of ORCID: Supporting the Efforts with Membership and Integration:

### 2.2.1 Future of ORCID

Once or twice a year the ORCID organization invites for outreach meetings to increase sharing and implementation of ORCID. Barbara Hirschmann (ETHZ library) participated in the meeting at Chicago, Illinois, in May 2014. Pilot projects realized in the USA have been presented with main focus

1. **integration** of ORCID into different existing workflows and databases like Identity and access management systems (IAM), human resources or profile systems, research information systems, repositories
2. **batch creation** of ORCIDs (universities for their researchers)

Goals of specific ORCID pilot projects:

- **track the career outcome** and impact of scholarship of graduate students and post docs: what they produce in the future as first publications, track what alumni reach with their graduate programs (Texas A&M University)
- **build process to verify ORCID** x with IAM person ID y and carry the verification status in metadata: best with self-registration (Univ. of Wisconsin/Madison)
- **IAM/ORCID as shared service**: coordinated approach frees local resources but communication and governance are challenges (Univ. of Wisconsin/Madison)
- **ORCID create and connect service**: batch creation of ORCID; researchers have to validate registration with ORCID after registration: pilot with 150 researchers, low response rate despite of considerable communication efforts from the organization (Chalmers University)

Conclusions:

- ORCID workflow must be integrated in existing workflows and databases
- Successful ORCID projects are cooperation projects involving as many stakeholders as possible and combining a bottom-up and top-down approach.
- Batch creation might not be the best step to start (nevertheless in May 2014 there have been 18’000 registered ORCID ID’s registered through universities for their researchers):

“It may be that facilitating record creation and then providing linking tools will be more effective than a bulk create process.”
(Laurel Haak, ORCID Executive Director, Mai 2014)
2.3 Gemeinsame Normdatei GND

Advantages of norm data are:

- Open
- Visible for everyone
- Open Linked Data compatible
- Verified by editors
- Validated by institutions

Disadvantages of norm data are:

- No self-registration of users/authors
- No corrections by users
- No maintenance by users
- Necessary resources (not all people can be entered in the database)

Today the Gemeinsame Normdatei GND is used in German speaking parts (http://www.dnb.de/DE/Standardisierung/GND/gnd_node.html). It’s coordinated by national libraries and maintained by the libraries together. Different countries or language regions work with different norm data. GND entries can be found also within Wikipedia pages (as well as VIAF).

Individualized identities for real persons (Tn) and not-individualized identities for example for film characters (Tp) are supported.

Example of a individualized GND:

![GND Entry Example](image)

There is no self-registration of authors or publications foreseen. Entries are made by the librarians only. They are "neutral persons" who put effort and do their best to provide correct data.

Reasons for new entries are publications of new books or a prize a person got. Also if names are written in a different way or when mistaken identities are discovered.

Duplicates should be avoided but will always exist because of used pseudonyms. ORCID can be entered in the norm data with RDA standard, e.g.:
In the French Normdatei there’s an entry of the International Standard Name Identifier ISNI (http://www.isni.org/). An ISNI is created if an author publishes a book for the first time. There’s no process for self-registration of authors. But the ISNI concept is not perfect for libraries since it only provides identities for living people and not for people living in the past. Often people will have both, an ISNI and an ORCID.

That personal data like birth date is exchanged could be a data protection/privacy issue.

2.4 Virtual International Authority File VIAF

The Virtual International Authority File VIAF (http://viaf.org/) contains the ISNI number and a permanent link to the VIAF entry of the author. It combines several norm data entries in a norm data service provided by the Online Computer Library Center OCLC (https://oclc.org). The entry shows where (country) and when a book was published.
3 Reports per institution

Chapter 3 is not for public distribution. It is restricted to the target audience: University staff, library staff, members of the ORCID working group.

Confidentiality Notice:

This is the public version of the ORCID working group report without internal information of the institutions of the working group members. The full version of the report is community confidential and for personal use only. It is not allowed to give away or further distribute the full version of the report.

Members of the SWITCH community can request a copy of the full version from the Swiss edu-ID project group at http://projects.switch.ch/eduid/contact/

The public version of this report can be downloaded from the Swiss edu-ID website at http://projects.switch.ch/eduid/documents/