

R1a: Provenance of objects in the commons should be transparent and persistent

Attribution is the hallmark of scholarship: statements and works are attributed not only so that credit can be assigned but so that the provenance of a work is known. Explicit attribution to a stable identity is also an important safeguard against malicious or irrelevant works, e.g. spam. Currently, our system supports a lot of anonymity. But we feel that universal attribution, using a machine-processable identification system, is an essential feature. The prevailing technology for identifying people in science and scholarship is the ORCID system or its equivalent. Therefore all researchers should register with the prevailing systems to obtain their identifier.

A system of scholarly communication should be constructed so that all activities that contribute to scholarship - from hypothesis testing to field research to qualitative interview coding to data visualization to article writing - are recognized. Any activity that furthers human understanding, is attributed and therefore credited.

Currently, only writing is rewarded and only for those individuals [fortunate enough to be officially deemed authors](#). Much of the collaborative work that leads to great scholarship is obscured and ignored in this system. The scholarly community should willingly recognize and nurture the full sweep of activities that comprise the scholarly enterprise. The commons should implement a system based on credit roles rather than the current limited authoring bylines. A fully machine-readable credit listing would be available for each work.

We propose a system of scholarly communication that supports a clear distinction between the assignment of credit and the judgement of value for objects. Full credit and attribution for all research activities is a primary goal. What work is valuable and to whom is left up to the various other communities to decide.

This maximally inclusive system of scholarly communication requires new approaches to providing credit and attribution. Discipline-specific (the scholarly community contains numerous 'villages', with porous rather than fixed borders) taxonomies will emerge to extol outstanding efforts at every possible phase of a project in various fields. There would necessarily be some collapsing of discrete efforts into common categories in order to operationalize this robust approach to recognizing outstanding work. That said, given that the ethos of the scholarly community is one of inclusivity and comprehensiveness these categories could always be expanded.

Peer review of research objects is attributed, i.e. open, although subsequent peer review may be solicited according to specific needs and may be anonymous (see principle X). A major

question is whether pseudo-anonymity is allowed. In general, openness is valued, but even in Principle 1, which states that content is open by default, we realize that sometimes information must be protected where people may be harmed by sharing this information.

Operationalization

- [ORCID](#) identifiers for commoners
- Capacity to automatically link activities in the commons to ORCIDs
- Production of a credits document to accompany each scholarly object, using the [Credit Taxonomy](#) as a starting point.
- Organizational identifiers ([GRID](#))
- Links between the object citing and the cited objects should be bidirectional
- Citations should be achievable between parts of objects and not just entire object to entire object.