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Commit: Mini article for dynamic reporting of incremental improvements to previous scholarly work

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Commit is a new article type at *Digital Discovery* intended for reporting incremental improvements on one's own—or other's—work previously published in the journal. Commits are intended to encourage and reward the community for sharing changes made to previous work such as full manuscripts or open software and hardware projects published in our journal.

Commit is a new type of Technical note. Technical notes are a well-established type of scholarly communication providing a brief description of the development or modification of a technique or procedure. As such Technical notes are referred to as technical innovations or technical developments. Commit re-envision this role of Technical note to present incremental advances on prior work. The name derives from the terminology of the git version control software, where a “commit” is a snapshot of changes in the repository, representing a point in the project's history, and includes a message describing the changes made. We see

Commits as citable articles describing the changes made to a project.

How could you use Commit? The goal is to provide a way of communicating to the broader community significant, but incremental improvements to previous work. Some examples include:

- Hardware articles: a device which has the same motivation and use, but has an improvement in capabilities or construction.
- Software articles: addition of features or improvement of capabilities.
- Data: incorporating additional data while keeping the underlying schema the same (for example, new data which has been added since the last article).
- Other papers: potentially some combination of the above, such as an improvement to the results by adopting a new machine-learning model.

Articles that are not primary research, code or data such as Perspectives, Reviews, and Comments are less amenable to Commits and therefore, we will not be accepting Commits for these article types. Additionally, Commits are intended for positive advances on prior work, and thus are not a mechanism for retraction or correction of erroneous data for which there are existing mechanisms.

What should a Commit contain? Commits should begin with a brief (1–2 paragraphs) citation to the prior work that they build upon and followed by a statement outlining the specific

extensions or contributions they make to that work. This introduction should clearly state what previous limitations have been improved upon in the new version. Authors may optionally include a brief summary of new scholarly work in the field since the publication of the previous work, especially as this information is essential for understanding the motivations behind and implementation of their current improvements. Commits are expected to be shorter than a full article, although there is no rigid page limit. We expect that most of the improvements will be present in associated code/data repositories or supporting information associated with the work.

How are Commits reviewed? Commits are an abbreviated article and thus have a more streamlined review process. Commits on one's own previous work receive 2 reviewers instead of three (a regular reviewer and a data reviewer). However, Commits on another author's previous work may have 2 or 3 reviewers (one of the previous article's authors, a data reviewer, and at the editor's discretion, a third reviewer).

How should Commits be cited? A Commit on its own does not encompass the entire body of work. We envision an appropriate citational practice to be citing the entire chain of Commits leading back to the original article. In keeping with our inspiration from the git version control system, we imagine that

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branches and forks may be permissible—for example in the case of multiple groups developing independent improvements to a previous project. Additionally, this suggests the possibility of merges which integrate these changes.

Outlook. At *Digital Discovery*, we welcome open discussion about updating

the traditional way of envisioning scholarly work while still working within the constraints of the software, systems and practices of the Royal Society of Chemistry. Please contact the Editorial Office at digitaldiscovery-rsc@rsc.org if you wish to comment on the above or discuss this further.

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