Language Map when converted to RDF. Therefore, these keys were filtered out during conversion to JSON-LD.

Converting the Tin Can RDF representation to PROV went smoothly. For the 19 statements that did successfully convert to N3, we observed **no loss of valid information** in the PROV-O representation. This suggests that the mapping in these cases is **fully reversible**, with the exception of invalid elements such as the aforementioned internationalization tags.

10. DISCUSSION & FUTURE WORK

By providing a reversible mapping workflow, we have increased the interoperability of Tin Can, without sacrificing its information content. Even apart from the inferred PROV, the JSON-LD conversion step had merit on its own: after this step, Tin Can data can now be (anonymized and) exposed as Linked Data. Adaptation by the ADL organization of a formal ontology such as ours in the future would improve the situation even better.

As for our own future work, we will continue the evaluation and development of the mapping tool to increase robustness. Currently, extensions and attachments are not fully supported. We mean to improve this by providing a JSON-LD context for commonly used extensions and attachments, allowing them to fit into our proposed workflow. Furthermore, our proposed workflow will be adopted in the context of the Flemish project EduTablet[12], furthering innovation in digital learning with mobile devices. This will result in a large corpus of learning log data, which will allow us to perform an evaluation in terms of new knowledge learned by exposing the learning logs as PROV.

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