We're Not Gonna Take It: Putting the Web at Musicians' Service

Albert Meroño-Peñuela[1] and Rinke Hoekstra[1,2]

[1] Department of Computer Science, Vrije Universiteit Amsterdam, NL
{albert.merono,rinke.hoekstra}@vu.nl
[2] Faculty of Law, University of Amsterdam, NL

Abstract. The Web has changed the way in which we interact with music. As music consumers, we have changed our behavior of buying albums in local stores to pay monthly fees to music streaming service providers. Besides their convenience, these services have given rise to two or three winner-take-all providers that, today, are central at supplying music to the world. Some argue that this is causing music to be less varied than ever, and figures of active musicians are dropping [3]. So far, it seems that the Web has only been useful to the business of music, but not much to musicians themselves. Can the Web, and its distributed nature, deliver tools to musicians to revert this situation?

In the last 15 years, the World Wide Web Consortium (W3C) has promoted a set of standards to publish, share and link data on the Web as we usually do with HTML documents – a publishing paradigm known as Linked Data [2]. With the assumption that music, especially in its digital form, is no more than data, we have proven that these same standards can be used to publish, share and link music on the Web [4]. In this paper, we propose Linked Data as a paradigm for music, and as a tool for musicians. We investigate the possibilities of existing representations of digital music (concretely in MIDI form) using RDF, the Resource Description Framework [1]. We aim at supporting musicians at the processes of inspiration and composition, by enabling them to publish, query, mix, transform and reason over music with the same technology we use today to publish, query, mix, transform and reason over data. In particular, we are interested in how musicians can discover music (by using dereferenceable URIs), explore it at a finer granularity (by querying parts, tracks, notes, combinations of instruments, or any imaginable musical pattern, on the Web), and combine and annotate music with any related dataset or concept on the Web, leveraging the integration power of Linked Data.

Keywords: Linked Data, Music, MIDI

References

1. Cyganiak, R., Wood, D., Lanthaler, M.: RDF 1.1 Concepts and Abstract Syntax. Tech. rep., World Wide Web Consortium (W3C) (2014), http://www.w3.org/TR/rdf11-concepts/

2. Heath, T., Bizer, C.: Linked Data: Evolving the Web into a Global Data Space. Morgan and Claypool, 1st edn. (2011)
3. Keen, A.: The Internet Is Not The Answer. Atlantic Monthly Press (2015)
4. Meroño-Peñuela, A., Hoekstra, R.: The song remains the same: Lossless conversion and streaming of midi to rdf and back. In: Sack, H., Rizzo, G., Steinmetz, N., Mladenić, D., Auer, S., Lange, C. (eds.) The Semantic Web: ESWC 2016 Satellite Events, Heraklion, Crete, Greece, May 29 – June 2, 2016, Revised Selected Papers. pp. 194–199. Springer International Publishing, Cham (2016), `http://dx.doi.org/10.1007/978-3-319-47602-5_38`