

On recognition of "primary data" producers through DOI minted to "secondary" data (derived from primary data)

*Yasuhiro Murayama¹, Masahito Nose², Yukinobu Koyama³, Hideki Takeda⁵, Koji Zettsu¹, Toshihiko Iyemori², Takashi Watanabe^{4,1}, Manabu Kunitake¹, Koji Imai¹

1. Big Data Integration Research Center, National Institute of Information and Communications Technology, 2. WDC for geomagnetism Kyoto, Kyoto University, 3. Oita National College of Technology, 4. ICSU-WDS International Programme Office, 5. National Institute of Informatics

In specific scientific disciplines (e.g., Earth and Planetary Sciences), some studies are conducted based on data directly retrieved from experiments, observations, and/or simulation, etc. (hereinafter "primary" data or PD), while there are other studies based on data generated from compilation and/or further data processing of PD (hereinafter "secondary" data or SD). SD is sometimes generated from processing multiple PD products (e.g., at different geographical locations, at different time, at different observational techniques/conditions and so on). In a research field where SD is more popularly used, the current data-DOI mechanism may not be sufficient in supporting data producers to keep sustainability of their data creation/curation/management works of PDs, because it is often difficult to ensure they receive proper recognition (and with it, enhanced reputation) even when SD generated from their PD products are used frequently and correctly cited in a number of research papers. In this paper, we attempt to focus on this difficulty for PD producers and we propose a revision in a metadata schema that enables the PD producers' work is appropriately recognized.

Keywords: Open Science, DOI, Secondary data