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Open data, Science and Society: launching *Oasis*, the flagship initiative of the *Istituto Italiano di Antropologia*

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The Open Data philosophy has gained considerable momentum in recent years, both in society and the scientific community. The accessibility via web of open data from the public sector has remarkably increased in the last decade, although there are substantial differences among nations (*http://datacatalogs.org/*). The expectation of many citizens, organizations and pressure groups (the so called "open government" movement) is that the free release of data from public administrations may help increase government transparency and accountability. Reaching this target, however, is, without doubt, a complex task. Numbers should not only be easily discoverable and accessible to everyone, but also arranged in such a way as to make it possible to give a direct answer to simple but important questions (e.g. how economic resources coming from taxpayers are used), and in an available form that allows for further manipulation and mining. Plus, it is necessary to develop effective ways for informed citizens to collaborate with governments in order to have a real impact on public choices. Having gone through these steps, open data practices may actually help establish a connection between politics, bureaucracies and the public and, ultimately, achieve a truly participatory governance (Lathrop & Ruma, 2011).

The Open data model is also becoming an essential part of current processes of scientific production (Boulton *et al.*, 2012). Sharing datasets on which scientific evidence is based is increasingly perceived as a necessary step of the research lifecycle and an important factor for research progress. However, also in this case, there is still a fair way to go before we cross the finishing line. Scientific practices complying with all the criteria for open research data (accessibility, assessability, usability and intelligibility as defined by Boulton *et al.*, 2012) are not as widespread as one would hope. Specific research fields (e.g. genetics and genomics) may exploit free and stable infrastructures for data deposition, the best known example being the GenBank database maintained by the National Institutes of Health. However, many others seem to be still on the starting blocks (Tenopir *et al.*, 2011). Strategies to foster a more widespread adoption of open data models by researchers and institutions are therefore necessary. The account of the meeting "Sharing research data, an interdisciplinary workshop" (on

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pages 179-200 of this volume) organized in September 2013 by the *Istituto Italiano di Antropologia* (ISItA) provides a useful discussion of this topical issue.

However, coming to evolutionary Anthropology, what is going on? Our discipline may be regarded as a special case. Consisting of a number of subfields - with not negligible differences in predisposition to data sharing, availability of infrastructures and use of standards - evolutionary anthropology seems to exemplify the uneven penetration of the Open Data practices we observe across the whole research community. Genetic Anthropology, with its numerous databases online (Congiu *et al.*, 2012), and studies of metric traits of teeth and skeleton, where inter-observer variability makes it challenging to compare results from different studies (Harris & Smith, 2009), perhaps may be considered the two ends of the spectrum. Interestingly, the debate on the importance of data sharing seems to have attracted the interest of the paleoanthropological community, with some innovative initiatives having already been undertaken in this field (Weber, 2001; Delson *et al.*, 2007; Gordon *et al.*, 2013; Hublin, 2013; see also the 2008 *JAS*s forum "Sharing databases in the age of the digital anthropology: problems and perspectives").

Naturally, the heterogeneity in the application of Open Data models across Anthropology may be seen as a limit. Openness means more accessibility, assessability and usability; they are not only features indispensable for every scientific enterprise, but also tools vital to develop the interdisciplinary approaches on which evolutionary Anthropology, as a holistic discipline, is grounded. However, tthere are also opportunities arising from such diversity. The subfields where open data practices are more frequently and successfully implemented may provide conditions and ideas which could be adopted to increase data sharing in other subfields. Sharing a common scientific perspective, albeit with differences in methodological approach, may render the dialogue among scholars more effective (e.g. see Weber, 2013).

The affirmation of Anthropology as a scientific discipline is strongly linked to the creation of Scientific Societies, starting from the *Société d'Anthropologie de Paris* founded by Pierre-Paul Broca in 1859. These old, but in many cases still very vital, organizations may provide important support to the open data movement. In fact, their relatively small dimensions and simple structures allow scientific societies to implement open data models in all their activities (research, meetings and publications) much faster than in large academic institutions and research centers.

Following this rationale, the ISItA is now launching the **Oasis** initiative (Open Access Institutes; https://isita-org.com/oasis/openaccessinstitutes.html). Rather than a project, it would be better considered as a set of integrated actions aimed at developing and implementing an Open Data model which covers all the activities of the Institute.

Opening Science to Society. This site provides an overview of what ISItA is doing to contribute to the Open data movement (*https://sites.google.com/site/openingsciencetosociety*). Our efforts are based on an integration of expertise and experiences from different disciplines, and take into consideration scientific, educational and societal aspects (Milia *et al.*, 2012; Anagnostou *et al.*, 2013; Destro Bisol *et al.*, 2013).

Open Journals and Books. Starting from this volume, we will publish online the final version of all JASs papers immediately after their production. In this way, the JASs will be one of the few open access (gold road) scientific journals to be completely free for both authors and readers. We are also making freely downloadable all the recent Books and Monographs published by the ISItA.

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Open Data practices. We are developing an explicit policy for data sharing, by which we encourage ISItA members to adopt open data practices in their research work. This step follows the data sharing rules we set up for the JAS and the creation of the Anthro-Digit[data] repository (Anagnostou & Destro Bisol, 2011; *www.isita-org.com/Anthro-Digit/data.htm*). Notably, JASs is at present the only anthropological Journal with an mandatory editorial policy for open research data.

Open archives. The collection and sharing of material of historical interest, which initiated with the Anthro Digit project http://www.isita-org.com/Anthro-Digit/, will be consolidated. We are establishing a form of collaboration with Digilab (Sapienza University of Rome) aimed at archiving and preserving the historical material of the ISItA, including the digitalization of the *Rivista di Antropologia* (1911-2003). A project aimed to recover and share past anthropological research work concerning Sardinian populations is now being prepared.

Open administration. Being mostly supported by (limited) public resources, scientific societies should respond to the growing demand for transparency and accountability in the use of resources. This may help create a climate of trust from citizens and help the public appreciate the cost/benefit ratio between investment in research and education and scientific products. The idea is to publish our spending budgets and relative information on the web.

Through **Oasis**, we hope to be able to demonstrate that a rapid and effective implementation of Open Data models in the management of Scientific Societies is possible. Obviously, we expect to share this initiative with other organizations, so as to develop it further. The official presentation of **Oasis** is already scheduled for mid December of this year.

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