OPEN RESEARCH CASE STUDY





Dr Marcello De Maria

Increasing Research Impact and Visibility from Day One: The Benefits of Open Research for PhD Students

Dr Marcello De Maria – who recently completed his PhD at the University and is now a postdoctoral researcher in the School of Agriculture, Policy and Development – highlights how using open practices during his PhD improved his research and supported his professional development. Open Access publications, Open Data, Open Source software and Open Research networks can be harnessed by PhD students and young researchers to build a competitive advantage from the very beginning of their careers.

My PhD thesis **Essays on the Economics of Large-Scale Land Acquisitions** explored the most recent—and arguably the greatest—land rush in human history. With more than 100 million hectares of land globally acquired, the contemporary surge in Large-Scale Land Acquisitions (LSLAs) is connected to key socio-economic and environmental challenges of the 21st Century—including food security, climate change and rural development.

I am passionate about this topic, and I did not want my thesis to become just another dusty book on a shelf. Open Research offered opportunities to make my work more accessible and relevant. I discovered Open Research when I started working as a data analyst for the **Land Portal** – a Dutch-based Foundation championing the use of Open Data principles, standards and tools to improve global land governance. I learned how Open Data, standardisation and interoperability are crucial for **improving and designing actual policies**, and I identified key Open Data sources for my research.

Encouraged by my Land Portal experience and the **support for Open Research** offered by the University of Reading, I committed to make my PhD 'open in practice'. Here I share a few simple but effective Open Research tips that I learned during my PhD.

Publish Open Access

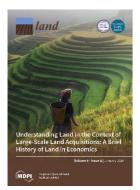
Open Access publication offers many benefits, including wider and faster dissemination of research outputs. The main barrier for PhD students can be the cost of publishing, but the University provides **funding for Open Access publication**, and offers a free alternative route to Open Access via CentAUR, its publications repository. I published my PhD literature review in a fully Open Access journal, using funds from my scholarship. The article¹ was selected as the cover story by the editor, and because it was published under an open Creative Commons Attribution licence, I was able to post the full text on **CentAUR**, the **Land Portal** website, and on **ResearchGate**, thus greatly enhancing its visibility.

Go Open Data

Use Open Data wherever possible, and when collecting your own data, aim to make them open and reusable. Scientific journals increasingly expect supporting data to comply with the **FAIR data principles** and to be openly accessible. I published the **dataset** I built for the empirical part of my PhD thesis under a Creative Commons Attribution licence in the University of Reading Research Data Archive². This made the data available for others to use, and because the published dataset has its own DOI, it can be cited, and provides another means to obtain recognition for my work.

Choose Open Source software

 $Scientific \ software \ can be \ expensive. \ {\bf Open \ Source \ software} \ is \ free, and \ it \ supports \ reproducible$



Cover of *Land* journal featuring Dr De Maria's Open Access article

research, because it is available to everyone. I have created visually arresting maps that I have used for presentations and posters, as well as for my thesis, using the Land Portal's **Geoportal** and **Kepler**.



Concluded LSLAs and land-related conflicts across the world. This map was made using the Open Source web tool **Kepler**, based on Open Data from the **Land Matrix** and **ECC Factbook**. ©2019 M De Maria. Licensed under **CC BY 4.0**

Build your (Open Research) network

Many researchers are passionate about Open Research - use professional networks and social media channels to find your Open Research community and discover new opportunities. During my PhD I published Open Access articles 3,4 , co-authored with researchers I met through the Land Portal network.

Open at a glance

- Open Research methods can help PhD students and early career researchers maximise exposure of their outputs
- University Open Access funding is available to research students as well as staff, and the CentAUR publications repository offers a free route to Open Access
- Open Data, Open Source software and open methods can make your research more accessible and reproducible

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