Currently, the main driver in research is towards what is termed “Open research” or “Open Science” but there can be a lack of clarity about what that actually means. “Open” means that every stage in the process is transparent, outputs are documented and then made freely available. Previously, it was enough just to do the research and publish. Open Research requires another step, which is to release the publication or data by making it available to be used and repurposed under the appropriate licence. Research is made open in order to enhance the integrity of the research by making the process transparent. It is more cost effective as data that has been produced with public funding can be used to either test the validity of the original research or used in innovative ways that were never envisaged by the original creator. It makes research freely accessible to all including the citizen scholar who more and more can become involved in the research process itself. Open research dictates that the very process of doing the research is recorded and made available through using open source tools, non-proprietorial software, open lab books, data management plans and so on.

Open Research is a pan European movement that is driven by the European Commission and it is moving very fast. The Digital Single Market Strategy, which states that making the results of research freely available assists economic growth, appeared in 2012. This led to the concept of the EOSC (the European Open Science Cloud). Open Science was then named as one of the three priority areas for European research. Horizon 2020 (funding programme) made open access to publications mandatory and the Open Access Data Pilot was extended to all thematic areas in 2017. In April 2018, an EU recommendation on Access to and Preservation of Scientific Information was issued. This reiterates the commitment to Open Science and puts the onus on member countries to produce implementation plans and monitoring mechanisms to ensure compliance with open access mandates. It recommends that researchers should retain their copyright and all publications funded by the EU are to be available as open access by 2020. It also talks about data management planning as a core activity in research and all data should be FAIR (findable, accessible, interoperable and reusable). A special envoy has been appointed to head up the move to Open Science. An indication of how
seriously the EU are taking open science is indicated by an announcement in early September, 2018, by a group called Coalition S which is made up of 11 major European funders (including SFI). Coalition S has pledged to ensure all the scientific research they support is published in ‘full, immediate’ open access journals by 2020. The text of the announcement is here.

In Ireland, the National Open Research Forum (of which DIT is a member), made up of key stakeholders including HEI’s and funders, has been working on the national principles for open access to publications and data. They are also scoping out the practicalities involved and the infrastructure required to realise the vision of open science for Ireland.

As the first technological university for Ireland, the TU Dublin must embrace the open science movement and a local forum has been established to see how that can be done. Nobody quite knows how all this will work out. Publishers for example are concerned about loss of business. There is the question of academic freedom and is that being removed from researchers? How can you ensure that mandates are implemented? However, it is apparent that the open science train has left the station and researchers need to seriously get on board or be left behind!

Yvonne Desmond,
Sub-Librarian, Digital Services & Research