



# OPEN SCIENCE SKILLING AND TRAINING INITIATIVES IN EUROPE

## IRELAND

*Interview with David Kane, Waterford Institute of Technology  
David is Systems Librarian at the Waterford Institute of Technology.*

[Website](#)

Email: [dkane@wit.ie](mailto:dkane@wit.ie)

### What was the starting point of your Open Science skilling initiative?

A colleague from UCC Library, Breeda Herlihy, came across 'Library Carpentry' and mentioned it to me. I thought the name was strange and amusing, but I was intrigued. I ended up going to a 'Carpentry Connect' conference in UCD that summer (2018). I was the only Irish librarian there. Nonetheless, I was impressed by the energy of the Carpentries movement, and the people I met. I could see that this would be very useful in the Irish context. Special mention here must go to Chris Erdmann, who was the Library Carpentry Community and Development Director at The Carpentries. I got to know Chris at the conference and he really helped me to move this forward.

### Please describe the context and aims of the initiative.

This is an initiative currently led by a national library network called [LIR](#). LIR aims to help research libraries explore and develop their digital capacity by providing seminars and workshops for members, as well as other such events which bring this community of practice together. LIR is under the auspices of the HEANet - the body that manages the Irish educational internetwork. Specifically, LIR is implementing Library Carpentry.

[The Carpentries](#) is an organisation that manages the community development of a set of open-source lesson plans covering the essential technical skills required to help build "global capacity in essential data and computational skills for conducting efficient, open, and reproducible research".

We have run numerous in person training events in Ireland. We have also trained seven Irish Carpentries instructors and these instructors are now teaching research data skills to researchers in their own institutions in Ireland. They are also currently teaching other librarians through the online medium. The current schedule can be seen on the [LIR website](#).

### How is the initiative managed and coordinated?

The initiative is currently managed and coordinated by LIR.





## Who are your target audiences?

We target Library Staff, Researchers, PhD, PostDoc, and Students.

## Which skills are prioritised?

TOP PRIORITY	STRONG PRIORITY	NOT A PRIORITY
<ul style="list-style-type: none"><li>FAIR Data</li></ul>	<ul style="list-style-type: none"><li>Open Science Skills</li></ul>	<ul style="list-style-type: none"><li>Scholarly Publishing</li><li>Research Infrastructure and the EOSC</li></ul>

## Why did you prioritise some skills and exclude others?

Conversations relating to FAIRness and proper data management, while meaningful and worthwhile, remain aspirational until staff directly involved in research acquire the skillset to actually put research data management into practice. To that end, the Carpentries supports the collaborative development of a range of open-source lessons (on GitHub) that teach skills such as the UNIX shell, SQL, regular expressions, coding, and OpenRefine among others. These represent the core, atomic skills that are foundational to research data management.

## How do participants acquire these skills and stay updated on these skills?

The Carpentries is uniquely distinguished by the fact that it is an active organisation which helps to keep the project moving forward, and by the use of in-person, face-to-face lesson delivery.

While face-to-face is preferred, we are running online lessons, due to COVID-19. In both online and face-to-face modes, we employ the technique of 'live-coding' where participants go through worked examples with the instructor. Also, in all cases, students are required to bring their own, or borrowed, laptop. In the face-to-face learning, we employ some break-out sessions where group learning occurs. This is not as effective in the online mode, so it is not used for online teaching.

We have attempted keep trainees updated on the acquired skills in the past with post-hoc quizzes. We are currently attempting to do this by holding online 'Hacky Hours' at intervals.

It's too early to tell whether this is effective or not. The theory behind the 'Hacky Hour' is that people bring their real-world data problems together to see whether they can get help from their peers. This is practiced in some universities across the world, and also in the British Library. Trainees can update their skills by returning to the lessons again in their own time or by attending a lesson a second or third time. The key idea is that the Carpentries can act as a springboard for workplace-based learning. For that to work there need to be enough colleagues in one place who have participated in the carpentries who know each other and who can talk to each other about data-related challenges/problem solving.



## How do you recruit and train the trainers?

Carpentries instructors go through a two-day training workshop that covers the basics of educational psychology, instructional design, and how to apply these to the Carpentries. Instructors are colleagues; librarians, researchers, data stewards.

We recruit trainers by advertising on social media, mailing lists, and asking people directly.

## Which channels, learning types and formats are used?

**Channels and learning types used:** face-to-face, distant learning, and group learning.

The face-to-face learning mode of delivery is preferred. However, during the COVID-19 lockdown, the online mode has been very worthwhile.

**Formats:** We typically use Zoom. The carpentries happen to use Zoom. Other platforms like Teams have been used also.

## Which channels and formats have been most useful?

In-person delivery is best, but the online mode has been very successful also. We would never have tried it if we had not been forced to by COVID.

## Is there formal recognition?

For the instructor training, there is a certificate issued by the Carpentries. No formal certification is required. I am involved in some discussion about how we might make it certified. We have in the past issued LAI certificates for attendance.

At LIR, we have also discussed the use of badges, but this conversation is better held with the Carpentries organisation, I think. I really want to make this certified and have had discussions directly with the Carpentries organisation about this.

Ireland's National Open Research Forum (NORF), has drafted [National Framework on the Transition to an Open Research Environment](#), which is a set of principles that support the development of an open research culture in Ireland. The importance of "Standardised and accredited skills for open research" are emphasised. One of the NORF sub-groups deals specifically with this area and it will be exciting to work on actions with this skills and development group.

## What impact do you expect from this initiative?

It is already having an impact. The time is right for it to have an impact because academic libraries are increasingly aware of the role they must play in Open Science, in order to stay relevant to the needs of the research communities that they serve.

## What have you learnt so far?

To keep working at it and to be persistent in delivery.

## What's next on your skilling/training calendar?

From next week we're going to run the programme again online.



## What about the budget and costs?

The Carpentry movement in Ireland has been progressed under the auspices of the [LIR Group](#), a national library network, which I am currently chairing.

The aim of the carpentries “to teach foundational coding and data science skills to researchers worldwide” fits in well with the stated aim of LIR – “to help academic libraries explore and develop their digital capacity by providing seminars and workshops for members, as well as other such events which bring this community of practice together.”

The most valuable input was the time freely given by the LIR committee and our Carpentries instructors. Without this, nothing would have happened.

We teach our own lessons, so instructors don’t need to be paid. This is because The Carpentries is a peer-to-peer learning network. We did pay an external person to teach a single lesson at one of our first workshops.

Room hire was free because we taught each other in our institutions. Therefore the only workshop costs were for catering, with cake, tea, coffee in the morning and a light lunch. The cost of the catering was covered by a lesson registration fee. We have been running the online lessons free of charge and open to all.

## Which challenges have you encountered?

The point of the Carpentries is to foster on-the-job learning, after the workshops have finished. From what I see, this works best in large universities that run carpentries workshops internally. People in the class then know each other and can talk to each other and solve data problems together once the formal Carpentries workshops have finished.

In Ireland the challenge is scale. There is not a critical mass of carpentries people in any one university or library yet. So, when people finish their formal learning, they are isolated again. This will be solved by persistent effort over time.

We also need more instructors. I was the first to get instructor training. We flew in two carpentries people from the USA to give instructor training to Irish librarians. This training took place just before the LIBER conference in University College Dublin, in 2019. Fellow LIR Committee members, James Molloy of UCD Library and Peter Fleming of the National College of Ireland were crucial to making this training a success. Twenty-five attendees from libraries across Europe enrolled to become Carpentries instructors. Our two instructor trainers were flown in from UCLA and Harvard. Seven librarians from the Irish HE sector attended. With more instructors we were able to grow the movement and deliver more training.

The COVID-19 pandemic put an end to the in-person training events that we had been running. We responded to this challenge by moving to our current mode of online teaching of the Carpentries material. As no catering costs are involved, we are delivering these lessons free of charge. Most of the attendees are from Ireland. One or two are from the UK and further afield.

Our remaining challenges are to meet the high demand. Our instructors are Irish librarians, with other duties to fulfil in their jobs. We will consider getting more instructors trained up to meet this capacity.



## What would you tell others looking to do a similar program?

Don't spend your whole life planning this. Just do it. You don't have to be a computer genius. The Carpentries lessons are very well structured and designed they will carry you. Also, give back to the Carpentry community by getting involved with lesson development.

## Have you seen any impact of your initiative so far?

It is very common for people who attend the lessons to be really impressed by how what they have learned can help them to do their job better. It is also common for the instructors themselves to learn as they teach. Our instructors are already delivering lessons to library colleagues and research groups in their own institutions. The feedback has been positive. We collect feedback through online forms.

## Which resources helped you to develop this initiative?

The Carpentries' lessons are an excellent resource.

Visit: <https://carpentries.org>

*This case study has been produced by [LIBER's Digital Skills for Library Staff & Researchers Working Group](#). For more case studies, and the original version of this one, please see: <https://zenodo.org/record/3701370>*

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