Why use ELNs? – interview with Omri Snir

Interviewee: Omri Snir, UiT The Arctic University of Norway, ORCID: 0000-0001-5322-0021 Interviewer: Noortje Dijkstra, UiT The Arctic University of Norway, ORCID: 0000-0003-2596-7691

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Transcript

My name is Noortje Dijkstra. I'm an academic librarian at UiT the Arctic University of Norway.

And today I'm visiting Omri Snir in his laboratory. He is a researcher at TREC – Thrombosis Research Center at the Department of Clinical Medicine. And today we're going to talk about Electronic Lab Notebooks.

First of all Omri: What is an Electronic Lab Notebook, also known as an ELN?

It's software that operates using one's personal computer. It has been designed to replace the traditional lab notebooks that have been in use and still are in use by scientists, engineers, technicians and people who perform work that involves data collection.

Okay. How long have you been using an ELN now?

Since 2010. Something like that.

And what were you using before that?

The original or the normal paper lab books.

Yeah, paper lab books okay. What would you say has been the biggest advantage for your group from starting to use ELNs?

I think there are multiple benefits. I believe the obvious one is that it is searchable. Everything is documented and if it's done properly, it's done in real time. So it gives some indication about the activity in the group, and it facilitates internal collaboration. And I think that makes everything more organized. You have less loose papers, and it can also save time when there's a series of experiments that are similar or identical, and you can simply multiply your experiments.

Can you give an example of the functionality of an ELN that you have appreciated the most?

I think the search option is very important. It gives you the opportunity to look back at what has been done and how work was performed, and I also like the fact that data and protocols are shared by definition. Because it somewhat teaches people who are more private that transparency, within the group and with colleagues, is important and beneficial.

Have there been any incidents where you have been glad that you were using an ELN and not an old-fashioned notebook?

Yes, when I need to prepare my work for the next day, and many times it happens late in the evenings at home, I can simply log in and search for the information I need, which wouldn't have been feasible with the ordinary, traditional paper lab book.

So you can also work at home without having to bring your notebook home?

Yes. I can also mention that during the lockdown due to the Covid-19 epidemic, having ELN was beneficial. We could communicate, we could follow up on what happened in the lab. Since we were not at the lab all the time at the same time, it was really good.

So it really has been beneficial for the collaboration in your group?

Definitely, yes.

We've been talking about the benefits of an ELN. Are there also some disadvantages of using an ELN?

Many people put a lot of effort into writing perfect protocols. And of course, that's very good because then it's saved and we always have it. But it's time consuming. It takes a lot of time, and so one needs to find the balance between a perfect looking protocol and a useful protocol, that is detailed enough so one can repeat it and understand what's written there.

Why should students care about using an ELN?

I think we should all care, because we should care about the way we document our work. And for students or people who are younger than me ... I think it seems natural to have a computer program or an app they use to document their work rather than a paper notebook — it's much more common these days.

Yeah, start with it early in their career. Can you say something about how the experience has been for your students?

Most people adapted very fast. Started using it and picked it up, and I think for those who joined the group now that ELN has been established, it's just a natural thing – it's there and available. That's good.

So it's not difficult to start using it?

No it's very easy. It's user friendly and easy, at least the format that I've been working with.

Does it help you in your supervision of students?

Yes! It really allows me to be involved, and to follow work in real time. To spot problems, to understand whether data has been interpreted correctly – I think it's important.

So, many people including supervisors that have been using old-fashioned notebooks during their entire career, they might be a little bit hesitant to start using something new on ELN. What would you say to them?

I would quickly specify the pros and cons and recommend them to try it. I should mention that I think most people, if not all, who are doing this kind of work use a digital format. So they write their protocols using Microsoft Word or Excel and save these protocols and documentation on their personal computer. So digital protocols are being written, but not saved in the right format or in a program that allows you to ... that was designed for it.

So, actually they already have everything?

I just have to put it on the right platform.

So, open science is becoming the new normal with funders and research institutes requiring that scientists share their publications openly, but also the research data and I believe that an ELN will help to fulfil these demands, and it will also contribute to open science. Do you agree?

Yes, it teaches people that sharing data is a good thing, and beneficial down the line.

Omri, thank you very much for your time.

Thank you.