

**TRANSCRIPT OF INTERVIEW WITH PROFESSOR CHARLES
OPPENHEIM, 14 AUGUST 2012**

IN: the first question I want to ask is: how did you become interested in information science?

CO: It was when I was doing my PhD. I did my PhD in chemistry. I was investigating the synthesis of new compounds. I discovered that whilst doing that PhD in chemistry I was much more interested in doing the literature searching than the chemistry itself. I enjoyed doing the literature searching so much that I offered to do literature searching for my fellow PhD students, who were of course delighted to accept. They were only too delighted to have me do that for them. That carried on for a little while until my PhD supervisor called me in and said "you're not making any progress at all; all I ever see is you in the library searching the literature. You need to get on with your PhD." So I did do. But it was that point I decided that I wanted to do literature searching as a career for the rest of my life. This was perhaps a bit eccentric, but that was my decision.

I then went to the careers advisory people at Manchester University and said "this is my situation; I am finishing my PhD in chemistry, but I want to spend my life searching the chemical literature for other people. And the careers advisory people said "No such jobs; doesn't exist." But I persisted, which is perhaps a bit surprising, and wrote to various companies on spec saying, "I am about to complete my PhD. I would like to do literature searching for you." This was in late 1969 or early 1970, and in fact Information science was already well established; it was just that the careers advisory people didn't know about it. One of the companies that I approached was Glaxo, a pharmaceutical company, now GSK. They said, "yes, come over for an interview", and I got an information scientist job at Glaxo, and that started in 1970.

IN: Brilliant! That's really interesting. So what would say the most significant steps in your career have been?

CO: My career has been split in three ways - being an information scientist at Glaxo, being an academic teaching students about information science, which I have done at various stages, especially the last stages of my career, and working for the electronic publishing industry, mainly doing licence negotiations with clients, or with suppliers of third party information or data. I think the key was changing from one thing to another: being a searcher for information, being involved in the creation, marketing and licensing of information, and in teaching the next generation of students about information science. It's that combination which has been so much fun for me.

IN: So what do you think in your opinion did you contribute to the field?

CO: There are two or three things. The first job I was given in information science, the job given to me by Glaxo, was patents information. I discovered very quickly that patents information sources were not terribly reliable, and they needed to be improved. Major sources, such as *Chemical Abstracts'* coverage wasn't adequate. So I did some studies on it, and my very first articles which got published, which was in 1974, was on the poor coverage of patents by *Chemical Abstracts* and certain other abstracting services. I'm delighted to say that, either they were planning to change anyway, or they were influenced by me, but these various indexing and abstracting services made a positive effort to improve their coverage of patents, which are a very important source of scientific and technical information, and so that is, I would say, my first victory if you like.

Later on I got very interested in copyright and licensing, and I would like to think that I have spread awareness in the library and information community about the importance of copyright and the need to negotiate robustly with copyright owners, and so on. I'd like to think that was an important contribution.

The final area of contribution I think I've made is in the field of bibliometrics. Because of my scientific background, I'm fairly numerate. I discovered that not many people were doing research on citation counting or publication counting as a measure of impact of an individual, an organisation or indeed a country. I'd like to think that I did contribute to the literature of that and made some interesting contributions about it.

IN: Excellent. I would say you have been pretty influential in the area of copyright.

CO: Thank you!

IN: Can you tell us about any colleagues who were most influential in your work? Any names spring to mind?

CO: Yes, a couple. One was my very first boss at Glaxo, called Dennis Caldwell. He taught me - I'm not quite sure, but he taught me - the intuition to know enough is enough - you've reached the end point of the search. If you keep flogging away at it, you might get the odd one or two more items but it isn't worth the effort or the time. I know how he did it. He asked me to do a search quite early on in my career at Glaxo and I was collecting photocopies and photocopies - a great pile of stuff on my desk, and he happened to come into my office and he said, "what is this?" and I said "this is the stuff I am collecting for the search you gave me". He said, "you're made, you've got far too much stuff. You don't need that much stuff for the

literature search.” This gave me the confidence to know when to stop when doing a literature search.

The other person was Eugene Garfield, who at the time was the boss of the Institute for Scientific Information and who later became a big name in the American Society for Information Science and Technology. I first met him at a conference in the UK in 1978 or 1979¹. We got chatting and he was the one who really got me into bibliometrics. He presented me with a copy of his book that he had just written² on the field of citation analysis. He autographed it; it is still one of my treasured possessions. I read the book, absorbed from it and started doing my own research into bibliometrics and citation analysis. Those were the two people who had the most influence on my professional career.

IN: What has been ASIS&T’s role in this and your own work?

CO: I can’t remember exactly when I joined ASIS (it was before it became ASIS&T). I think it will have been at the time that I re-entered academia at Strathclyde University in 1992³. I was already reading the *Journal of the American Society for Information Science* and found it had a lot of articles that were of interest to me in my research. So I decided to become a member of ASIS to get [a personal subscription to] the journal, and to be quite frank, that was the only reason. Because I wasn’t based in the USA, I didn’t attend any meetings - the annual conference was at the wrong time of year - it was in the middle of the academic year so I couldn’t go to it. The *Bulletin*, which is regularly published, didn’t particularly interest me, and indeed the Special Interest Groups didn’t produce much that interested me. I remained a member until I retired. I retired from academia two/three years ago⁴. At that point I ceased my subscription to the *Journal*. The *Journal* has given me ideas, has been a publication vehicle - I’ve got published in it a few times, and has helped me identify key individuals who are doing interesting research.

IN: Moving on to the world of information science at large, what do you see as the main challenges and opportunities for information science?

CO: I would split that question into two - information scientists as a profession, and information science as a theoretical discipline.

For information scientists, one of the big challenges is being recognised as a profession. A lot of people do information science, but don’t call themselves

¹ Since checked, and it was 1979!

² E. Garfield, *Citation Indexing: its theory and application in science, technology and humanities*, John Wiley & Sons, 1979

³ Since checked - it was in 1991.

⁴ The ASIST subscription ended in 2010

information scientists. They might call themselves information manager, or researcher, or knowledge manager, or whatever. But they are doing what information scientists are meant to do, which is collecting the literature, searching and retrieving information, and then analysing the information, which I think is the crucial part of the job. "That's important, that's not important, these are the actions you should or should not do as a result of my reading of the literature and my passing of this report to you." So I think the challenge for information scientists is simply to be recognised for what they are, an important profession that helps organisations – private sector, public sector, you name it – work more effectively.

Information science as a theoretical subject is very very hard to get to grips with. It's a combination of management science, psychology, and all sorts of other subjects that are researched by information scientists. If you look at some departments of information science, and I am thinking here particularly of the USA rather than UK, academic staff there have got a huge range of disciplinary backgrounds, less so in the UK.

Information science as a discipline borrows an awful lot from all sorts of different subjects, but doesn't actually give that much out, and is therefore not that well recognised. It's not a criticism of it; it's just a fact of life. It is a challenge to information science to keep absorbing all this, and then disseminate results that are important and relevant.

IN: And what do you consider the most significant achievement of information science is?

CO: That is a very difficult question. Might well be in the bibliometrics area. Bibliometrics has become very popular these days, and is used to evaluate individuals, organisations and so on, and is increasingly used these days by funding bodies to decide what funding shall be passed to what research organisations, universities and so on that are within their remit. They are increasingly reliant on these bibliometric measures. Arguably, that is what information science has brought to the party – the use of bibliometrics as a surrogate for the impact, the importance and quality [of research] and for that to be adopted by various organisations and government as a measure of how well their organisations are doing.

IN: I think I would agree with you there. One final question. What would you say in order for young people to get excited about a possible career in information science? What can information science offer to younger people?

CO: I would say the interdisciplinary nature of it is part of the excitement. It's not just one thing. You can follow your nose. In fact, my career, combining copyright, licensing and bibliometrics is a really curious combination and nobody would say "that's wrong." The beauty of it is that

you can pursue several avenues at once. It is intellectually challenging and can be mathematically challenging. If you want to go into the mathematical side, you have to be confident in your use of statistics and so on.

You are influencing the policies and attitudes of people who do research, policy makers and decision makers all over the place. Just to give you an example – and this is the most rewarding thing that happened to me as an information scientist. It was in my first job, at Glaxo. I'd been there maybe 18 months, when suddenly, out of the blue, Glaxo was the subject of a hostile takeover bid by Beechams, which was another pharmaceutical company. It was hostile, the Managing Director of Glaxo was totally opposed to it, as was the Board. The Managing Director of Glaxo announced that in 48 hours he would call a press conference at which he would explain why Glaxo was opposed to the hostile bid and the Beechams bid was inappropriate.

Then a message came down to the information science people in Glaxo "find all the dirt you can about Beechams. The managing Director said in 48 hours he's going to make a statement; you've got to give him the ammunition." We were then given various tasks, which were split up between us. I was given the task of looking at Beechams' patents, because that was my main searching area. So I did a search on all of Beechams' patents. I discovered that although it was highly profitable at the time, because it owned a number of key patents. However, these key patents were all coming to the end of their lifetime. Almost certainly, the reason for the hostile bid was that Beechams knew it, and needed to acquire another company to keep growing. So I wrote my report (I've never worked so hard -- through till midnight in the office I think) collecting the data and writing it up. My report went straight up to the Managing Director, and sure enough, at the press conference the Managing director said, "this is a completely inappropriate bid, and the reason why Beechams are doing it is because their patents are coming to an end, and they are going to lose their profitability in the next two or three years."

Indeed, the hostile bid failed, and my prediction was correct. And indeed, years later, Beechams' profits did decline, and Glaxo, which became Glaxo SmithKline, now incorporates Beechams. So I can say I helped defeat that hostile bid. I can honestly say that. I had influence in that way.

There is a tiny caveat to that story which I will also tell you, which was an embarrassment for me. A couple of years later – so quite soon after – the Beechams hostile takeover bid had failed but Beechams still existed, and had reached the peak of its profitability, and I gave a talk to school leavers about careers in information science. It was a big event with hundreds of school kids, who all wanted to do science or technology of one sort or another. So I told this story, and said, "The rest is history; the bid failed and I confidently predict that Beechams will go under sooner or later." I hadn't realised that the next speaker was from Beechams and giving a talk about 'careers in

Beechams'. And of course he was furious. There was an official complaint made about my talk. So be careful what you say in public, and take note of who is following you as a speaker!

IN: That is brilliant. Really interesting to hear your story, Charles. We'll wrap it up there. Thank you very much.

CO: My pleasure!