You're Booked! Information services for Forensic Science

John Goodier MSc MCILIP

For the past ten years I have been an Information Specialist at The Forensic Science Service, a wholly-owned Government company, formerly the Home Office Forensic Science Service. The FSS is a major provider of forensic science services in England and Wales, and we in addition involved in some work overseas

When I tell people where I work, they become very interested in what I do; more so than when I worked in other areas of science such as environment, agriculture and health, which are of concern to most people. A lot of what I and my colleagues do is standard library and information work – books, journals, on-line searching, and so on, but the rest of it is different. The question "Can you find the origin of this children's garment?" led to the linking of Adam, the torso in the Thames back to Germany. We tracked it primarily by the buttons, as there are a limited number of major button producers. In another murder case the body was bound with a distinctive plastic tape but to get the evidential value of the tape we need to know how many rolls were sold. That one was easy as I recognised it as a Gilbert & George Christmas special sold by the Tate Modern. Shoe sole patterns are another case where the number sold is important for evidential value. The rarer the item is, the more likely the link of evidence to suspect. Product information is only one part of the evidence, but it helps to building a case. Sometimes the ingredients that comprise a product are important. If someone squirts a liquid at another person, it is critical to the prosecution whether the product would fall within the Noxious Substances Act of 1861. A drain cleaner with caustic soda would; one with a few surfactants and some cheap perfume would not. COSHH sheets usually solve these cases, but in other cases we need information on all the ingredients, and in these case we need to get fuller details from the manufacturer. In crime scenes where a tool or a knife had been used to break into a building or a collection box, we try to get sample of the suspect knife from the manufacturer so the scientists can try to replicate the marks left on the target.

One group of products that we often need information on is alcoholic drinks. People accused of driving under the influence give the police an account of what they have drunk, and we need to know its strength to relate the blood-alcohol test results to the account. We have built up a database of beers and ciders, with container sizes and strengths, which our scientists can use. However if they come across a new drink, then using the Internet, phoning companies and even looking at shelves in supermarkets are ways in which we find the strength.

We have had a couple of suspected poisonings where superseded pesticides based on arsenic or mercury may have been used. These require a bit of historic research to sort them out. I was once asked about an industrial product and the label had an old letter-and-number dialling code so I converted it to the modern number and dialled it. That was a lucky day, since the same firm on the same site still made the product, so we could get all the information wanted.

There are many more tales I could tell, and some that I cannot as the cases are still ongoing. Those I have told give some idea of how wide enquiry work goes. In the ten years I have been doing this, we have moved more on to the Web and away from printed directories. Company websites will often give a UK contact, which can be useful in getting information from non-UK companies. There is a lot of product detail on company sites. Wikipedia, although not 100% accurate (and which reference books reach that level!), is useful, with technical information on a wide range of topics. For illicit substances, there are a number of user support websites that have good information. Often there are references to academic articles which can be followed up. Deep and strategic Web search plays an important part in our approach to the Internet. To give a simple example, one of our pharmacists had a wrong address for a company in Europe. The website did not give any address that looked anything like what I was looking for, so I clicked on the “Jobs with us” button. The company had two sites, and what my colleague had was a mixture of the addresses of these.

We make extensive use of online databases via Dialog. We also produce our own database, FORS, which we sell access to. FORS is a bibliographic database that is focused on forensic science. Although the major databases cover much that is of interest to forensic scientists, they do not cover all the forensic and police magazines. Publications like “Police Professional” and “Police Review” will have accounts of major cases that may suggest new ways of investigating crimes, and these will be included in the database. In one recent article there was an account of a person found with child pornography images. It was shown that the person with the images was the perpetrator of the assault shown in the picture. Carrying out the assault is a more serious crime than possessing the image. An examination of the wrinkles and small scars on the hand in the image were compared with the hands of the suspect. We add to the database any reference we obtain for the forensic scientists, and this includes papers from any date, so material that is not on the current online databases gets included. The old references to mercury and arsenic products come into this category. There are 80,000 items on FORS, and for many cases the scientists can identify the papers they need. We reckon that about 90% of papers used by our scientists come from FORS. The rest are found from online searches done by the Information Specialist and ordered from The British Library. When the BL does not hold the publication, we get help from colleagues abroad to contact the publisher or author. We have a 99% success rate in getting journal articles. When the defence expert is quoting a paper in court we have to get a copy very quickly, and we usually mange it.

We still have a book collection in the library. The parts of it that are well used are the toxicology reference books, and the case history and evidence interpretation books. There are also book collections in laboratories. One of the largest is with the firearms experts, who have identification books. Support and management areas, such as finance, human resources and computer services also have collections of books. We manage almost all the book and journal purchases for the organisation, so the book catalogue has a complete list of books allowing them to be shared with in the organisation.

The Information Service Group at The Forensic Science Service is moving toward a more e-based service. We are in the last stages of moving FORS onto OLIB library management system, as the software we use to produce it is no longer supported. We are including the book catalogue and the Alcohol By Volume database on the new software. We are exploring the idea of blogs and wikis as a way of letting staff share information. One area is to allow those scientists who give evidence in court to share their experience of this. Our R&D teams are keen to use more e-resources and we will be involved in facilitating this.

The Information Service Group had recently become part of Learning and Education Services, and we are seen as part of the ongoing intellectual development of the organisation. There are currently three members of the Group; Rina, based in Birmingham with our R&D and Intellectual Property teams, runs the technical enquiries. Sarah, based in London, is the Library Manager and I run FORS, but we all get involved in most things. The three of us are qualified information scientists and CILIP members. In the past, some of the information specialists were not trained librarians, but had previously worked in the operational part of the organisation. The advantage of being trained is that we know what is possible and how to do it. But as none of us has been a forensic scientist, we have to learn their ways of thinking. In most libraries if you cannot answer an enquiry, well that's a pity. Forensic scientists want to know where you have looked, who have you asked, because they will be asked in court. It is in court that matters. So the job is a mixture of information science and more unusual enquiries.

One last tale; I was asked to find out when fibre tipped pens were invented. Some illegally held birds eggs were marked with dates from the 1930s. The scientist could show that the marks were made with a writing implement that left a single line rather than a mapping pen which leaves two lines. Fibre tip pens did not exist in the 1930s. The reason I recall this story is that a few weeks later I read in a newspaper an account of the trial, and my small input was mentioned. It is the involvement in the expert evidence in Court that make this job different from my previous jobs.