



***RSC-CICAG Meeting  
Burlington House, London  
Tuesday 15th.May 2012***

## **The Chemical Information Profession - The Future is Bright, the Future is ...**

Following on from the two previous successful one-day meetings, which had covered the history and future of chemical information in drug discovery, this meeting was aimed at identifying the future of chemical information as a career. The meeting was chaired by Dr. Stephanie North, who set the background and introduced the speakers, each presenting a unique breadth and depth of experience.

Although the meeting was modestly supported with 24 participants, including speakers and committee members, those present were enthusiastic in the discussion groups between the speakers' talks. To facilitate open discussion among the participants, the lecture room was laid out not with the usual rows of seats, but with four large round tables about which a randomly self-assembled group sat, with discussion on each table mediated by one of the four main speakers. At the end of their talks, each speaker invited the groups to discuss amongst themselves the topics raised; after 10 minutes discussion, each group reported their opinions and conclusions back to the meeting as a whole, to identify what their opinions about their career futures were.

### **Future Bright - The Long View**

*Dr. Sandra Ward, Beaworthy Consulting*

Take the Long View: Can looking back help us to look forward? We are surrounded by a large landscape of structured and unstructured data, which is constantly changing.

Change is inevitable, and new information types are constantly emerging (environmental/sustainability, location (iPhone), social network analysis) and expanding. The exploitation of information and business intelligence is a critical capability:

- Public (including academic) sector is into 'big data'. How do you mine and exploit that?
- 'Waste' data is stimulating new business (e.g. re-using mobilephone data - Big Brother?)
- Information governance. Data quality, classification and management.
- Information skills are in short supply (statistics, analysts, software maintenance). But you also need to be able to ask the 'right' questions.

Chemical information is dynamic. Looking back to look forward:

In the 1970s most operations were still manual (library searches and literature mining to give clues for new drug leads), with an evolving technical skills base (WLN, pattern recognition, database design); your value was accepted ('partners in innovation'), but the breadth of personal skills & competencies has become more difficult to maintain. Now: tools are Internet-based; you need analytical skills (spotting inconsistencies) and writing/speaking communication skills; who will create new architectures? - you have competition from outsourced consultancies.

Securing opportunities:

- Understand your business - are you seeking transformation or protection?
- You can demonstrate activity (that's easy), but can you demonstrate *value*? What do your customers think?
- What can you do? What do you want to change?

There is a Golden Thread:

Design services -> Deliver them -> Measure the impact on the organization

**Framework:**

Need an organizational champion (who is prepared to work with you)

Benefits Plan: What is the vision of the service? How do you measure or show that the service is delivering this?

Maintain a baseline checklist: do you know where you are and what your competitors are doing?

Techniques to assess value: cost savings; impact on business performance

Maintain skills and competencies

If you were 30 now, what would you need to know?

- Know Thyself: what is your personality type?
- Recognise your real inclinations.

Maintain your technical expertise - your selling points:

- Knowledge of chemistry & chemical structures and their use in an organizational context.
- Curiosity and eye-for-detail
- Communication skills

What opportunities exist in your organization? Or outside? Think abroad, we're in a global environment. Big vs. small organization? (job security). How does your function demonstrate value and impact? Is it unique? Do you get repeat business?

You have to be recognised! The information world is no longer the preserve of the information specialist.

## Maximizing Your Personal Impact

*Suzanne Wheatley. Sue Hill Recruitment & Services Ltd*

What are the trends in recruitment (both in-house and agency): What are people looking for? Questions to ask:

- First, how would you define yourself (in just six words)?
- Is there another opportunity outside your organization? If so, is moving worth the risk?
- Who are your competitors (business & personal)?
- Who are your internal customers?

Other people may think that they can do what you do - do they recognise your skills?

What drives you? Money, work-life balance, ambition?

Redundancy is now a fact-of-life. Does it free you up, enable you to move on?

*Hard skills* : These should be straightforward to define.

*Soft skills* : Communication, personal interactions. These can include anything you use in the course of your job: How do you influence people?

Six words (or phrases) that describe yourself, e.g.:

- i) Handling chemical structures
- ii) Communication and sociability (you need to be a listener)
- iii) Perfectionist / attention to detail
- iv) Organiser
- v) Networker (demonstrating your value)

CV: a formulation and presentation of personal details. It should remind yourself (and your employer) of what you're good at.

Name

Personal profile (no more than 2 sentences)

Where you've worked; technical skills developed.

Your achievements - bullet pointed.

Good spelling (employers like this)

Online presence (include LinkedIn - people can say nice things about you!)

Finally, rehearse for interviews:

What's your biggest strength?

What motivates you?

## It's Fun Out Here: The Independent's Tale

*Pam Toplis, Serengeti Information Services*

Pam gave a review of her experiences in moving from a corporate environment to a life in self-employment working as an independent specialist, showing how the uncertainty of setting up her own business has led to a fun and rewarding new career.

Her industrial career as an information scientist had involved a variety of skills - literature / patent / business searching, software testing - without a particular specialization. Working for a large corporation provided job security - life was good (if a bit sheltered!). However, following redundancy she faced a number of alternative futures:

- i) Stay at home (family)
- ii) Change careers (...but I like my job!)
- iii) Get similar job elsewhere ( -> travel or move house)
- iv) Go it alone

The latter seemed to provide the best way forward, but is a big step for anyone as there is no company to look after you.

Things to consider:

Get CV up-to-date.

Banks and HMRC provide courses on self-employment and setting up businesses.

Write a Business Plan: this is essential if you need a funding loan

Business type: sole trader, partnership or limited company?

Where to trade from? Home or separate premises ( -> cost)

Insurance - critical illness, professional indemnity

Marketing: let people know you're there

Company name: what are you going to call yourself?

Where would the work and potential clients come from? Email Networks, contacts. Joined AIIP - Association of Independent Information Professionals - for advice on dealing with potential clients. Chemicals Northwest and Bionow provided leads to potential clients.

And when the company was finally launched, it needed: a website, logo, headed stationery.

The initial start was slow , spasmodic ... and scary. It was also lonely, with no immediate colleagues. You have to understand your customers (who won't always share all the information you might need) and keep them informed. Attend meetings/conferences: you need to keep up-to-date - new databases, search techniques - and show that you're still around. Join relevant interest groups: AIIP, BPIP, PIUG, PATMG, CICAG and use LinkedIn to keep people informed. Practical financial things: keep receipts, record expenses; remember to record time and invoice.

Slowly the business built up and became more regular. 60% of the work comes from large corporations (polymers / pharma / biotech). Although she may not know where the next work may come from, she still does a job that she enjoys.

## Careers at the Royal Society of Chemistry

Joanne Thompson, RSC Publishing

Publishing enables the RSC to support its other activities. In the past 5 years, the RSC has been changing, growing, adapting:

2006: 5,000 journal articles/pa. High quality, but mainly UK centric

2011: 20,000 journal articles/pa

Staying still in publishing is like going backwards. What has triggered this growth?

Increased global market share

Increased impact (i.e. retaining quality)

### Publishing Process Streamline:

#### *Acquisition:*

Journal citation & usage analysis

Who's publishing in competitor journals? -> attract new authors

Business Development Manager -> Launch new journals

(interdisciplinary, not just chemistry)



#### *Processing:*

Web-based manuscript submission (as ACS also do)

Outsource to associate editors (academic, corporate)



#### *Delivery:*

e-Publishing : many organizations no longer want print.

Mobile devices : "searchable and accessible to people on the move"



#### *Promotion*



*Usage (= sales)*

### ***RSC Semantic Publishing (aka Project Prospect)***

RSC editors used to annotate named compounds and link them to other sources by hand. But this was labour-intensive and time-consuming, and the process has now been automated and integrated with ChemSpider (26 million compounds) and linked to other data sources. Data curation and correction is managed by the chemical community.

### ***The Future***

The RSC is now seen as a publishing leader in 12 broad topics, including: Analytical, Materials, Biological & Catalysis. There is a shared vision, to "be foremost in promoting chemical sciences". The future is seen as the need to unlock and utilise the potential of information held in journals: BIG DATA

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### **The Last Discussion Topic...**

*Stephanie North*

To conclude the meeting, Dr. North thanked the speakers for contributing to a very stimulating day and noted that the 'round table' format had proved very successful and conducive to open discussion. She then asked each table to consider their ideas to complete the dots in title of the day's meeting "*The Chemical Information Profession - The Future is Bright, the Future is ...*".

The Future is...	... Changing
	... Data / Big Data
	... Expertise / Value
	... Uncertain
	... Ours to Shape

Move forward with whatever phrase you choose!

*Meeting Review prepared by:*

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Speaker talks are available on the CICAG meetings webpage:  
<http://www.rsc.org/Membership/Networking/InterestGroups/CICAG/meetings.asp>