



Editorial

Dear All,

Well it's that time of year again: time to take stock over a glass of port and a mince pie or two. A busy year against a background of major change in the UK and in the wider world. These big changes produce ripples of consequences that can affect all of us in many ways, testing our ability to cope with variety and throwing potential opportunities our way.

In this end of year edition, we have some notes from the Board as well as some more on the forthcoming professional development programme modules. We have an update on the website and recent development days and Denis continues his description of the application of VSM to the organisation of a sports association and

suggests that the interested reader may wish to doodle their own diagrams based on the information provided. I wonder whether we are going to see a diagram from Denis soon?!

January sees SCiO establishing a bridgehead in the South by holding the January open meeting in the BT Conference Centre near St Paul's. This is an important opportunity for SCiO to branch out from its traditional North Western stomping ground and attract interest from further afield.

Enough! It is time to wish you all the best for the New Year! *Carpe diem!*

Gordon and Dave.

Inside this issue:

Update from the Board	2
SCiO Professional Development Programme (PDP): SCiO Courses: calendar for	2
OMM update	3
Website update	3
Development Days	4
Fractal Life	4
January Open Meeting : 17th January at BT Centre in Central London	5
Lessons from a Sports Association Study: The second part of a four part case study by Denis Adams	6-7
Mandlebulbs	7
Notice board: Table of Dates for your diaries	8

Update from the Board

Winter and Christmas is traditionally a time not just for overeating, drinking too much and a befuddled attempt to remember what really happened at the office party, but also for taking stock and planning for the year to come.

For SCiO, the close of '10 and the prospect of '11 bodes quite well I think. As well as the regular open sessions and development sessions, there has been some solid progress on a number of fronts: the OMM has been launched and there has been a steady bedrock of one day professional development courses run from both Manchester and Milton Keynes. In both cases these provide a platform from which further work can be done. In particular, the plan for the professional development programme is to continue to expand the range of courses run and to increase the depth of engagement with longer action learning based courses.

In SCiO's connections to other groups and bodies, there has also been some steady progress and this has been mostly mutually advantageous. I'm thinking here both about connections to universities and also some of the outreach groups. I think the key issue here has been, and will continue to be, to construct the relationships carefully so that there is a genuine two way interchange of both ideas and people. Where this has happened, the result has usually been success. Where the relationship has been perceived as a "selling" exercise, it has usually failed. And so to 2011 and the new year starts with our first open meeting in London on January 17th hosted by BT, the start of two new cross disciplinary "outreach" groups and the prospect of the next phase of website development coming online.

Patrick Hoverstadt

SCiO Professional Development Programme

Over the last few months the PDP has really begun to take off. More and more people are moving towards systems thinking, looking for ideas to help them manage complexity. Here's what some of this year's course participants said about their experiences:

SC101 Viable Systems Model – Structures

"Really interesting – enjoyed the workshop-based approach"

"Working with a case study structured process was good in enabling me to immerse in the organisation and so apply VSM in a practical way. "

"Interactive, group work really useful and practical application great"

"Thoroughly enjoyed the day – my brain hurts!"

SC102 Viable Systems Model – Dynamics

"Fantastic – learned so much."

"Think it worked well re. pace and content. Always intriguing to witness other people's thinking processes"

"A highly stimulating workshop".

SC103 The Systems Minefield

"Very good for me, confirmed my current understanding and need to learn more"

"I thought the content had an appropriate breadth and depth. That said I didn't find it easy – but I didn't expect it to be so."

"Good balance, relevant to things I'm keen on learning about"

We will be running these courses again, and more, in the New Year.

Next opportunities to attend Level 1 modules (open to all)

Please let us know if you are interested in attending any of the courses above and we'll try to organise them to suit demand.

Contact: Penny Marrington, sig-mar2@aol.com; 01706 819470

OMM update

The SCiO Organisational Maturity Model

For those of you who are new to SCiO, the Organisational Maturity Model (OMM) is driven by a questionnaire and is designed to show the structural integrity of your organisation (initially just from one perspective).

So, we made the first release available in September 2010 with both an IT and a paper version. It's on the SCiO website: <http://www.scio.org.uk/OMM>. Please give it a go yourself and pass it on to anyone who you think might derive value from it.

I will be talking about it at the SCiO open day in London in January and OMM development group members will be around if you would like to talk about your experiences with it on that day.

We do not get any automatic feedback from the OMM. We took a decision early on to ensure that the IT usage was guaranteed private and with the paper version there is of course no automatic data capture, so we would like to hear from you.

We need to learn – so if you have tried the OMM out and would like to tell us what worked and what didn't – what it is good for and what you wouldn't use it for - how it could be improved, then we would very much like to know. You don't need to say who was using it, but an outline of the context, version and feedback would be useful. Sharing your stories will be valuable when it comes to mapping future developments. You can send feedback to SCiO through me or if you are a member through the members Google group.

Are there enough individual users for a specific user group yet? Are you using it as a consulting tool and starting to see patterns of usage emerge which you would like to share? Do you have a new use for it? It would be great to hear from you.

Jane Searles (OMM sub-group representative)

Jane Searles: scio@janesearles.co.uk;
01538 372804

OMM sub-group board representative

The OMM is designed to show the structural integrity of your organization.

Website Update

The revised SCiO website went live last November with fairly basic functionality. Since then, Rob Lever and I have been endeavouring to keep the content up to date using fairly laborious manual updating.

As the next step in the website development we will make more use of the 'content management' functionality' that Drupal provides so that content is easier to update by the content owners and is presented in a professional and consistent set of styles. More advanced functionality such as a members' forum and online membership services and payment are also high on the agenda.

To move forward to this next stage, we were introduced by Alex Hough to a local web

business called **menus+blocks** (<http://menusandblocks.co.uk>) who specialise in Drupal developments. At the AGM, approval was given to use some of our funds to employ **menus+blocks** to introduce the professional functionality that we need to take SCiO forward.

Draft requirements have been produced and discussions have started. We are convinced that this is the right route to take and we will keep you up to date with developments. If you are interested to follow the development as it proceeds there is a website e-group – contact me to join it.

Steve Hales

Development Days

At a recent meeting of the SCiO Board, it had been agreed that a collection of concepts should be assembled that reflect the core of our practice. The proposal was that this should be progressed by having a 'concept stream' as a standing item for development day discussion. Resulting materials would be added to the growing number of defined and illustrated concepts for new and existing members to refer to.

An initial discussion therefore took place at this meeting. Rather than tackle one concept per development day, progress would be speeded if driven by the sharing of a professional practice story as these invariably involve the use of several concepts. So, a process was agreed as follows:

An application story is presented

Concepts illustrated by the story are identified

Each concept is defined and illustrated in the story

These are written up and presented on the SCiO web site.

This would simultaneously record concepts in use and multiple illustrations of each concept. The process was tested using an impromptu story and the audience was able to identify a number of appropriate concepts. The formal process will start at the next Development Day event on Sunday 6th February in Manchester. It will need volunteers to provide stories, record discussions and write up definitions and illustrations.

Contact

Jane Searles; scio@janesearles.co.uk; 01538 372804

Dave Mettam; dave@mettam.plus.com; 0161 4431420

Fractal Life

The clue to this is in the name.

David Attenborough alerted me to these fascinating examples of an early experiment in life found (by accident) beautifully preserved in the ancient rocks of a windswept cove in Eastern Canada. Through the work of Guy Narbonne, we have come to know about their simple structures based on a modular, self-repeating structure over four levels. They had no guts, no eyes or legs and were apparently very simple, leading static lives in the dark depths of the pre-Cambrian ocean. They are considered to be an enigmatic first experiment in complex life along with other not so apparently fractal Ediacaran organisms from Australia. So what happened? Environmental changes in the oceans did for them as they did for many species at periodic intervals through the geological ages.

What is intriguing is how the structural fractality of a body plan is limited, whereas a fractal ar-

rangement as an organising principle for communication within a body is incredibly powerful.

You can find out more about this at the Queen's University Ontario geology museum web page.

The Ediacaran fossil Fractofusus misrai, Mistaken Point, Newfoundland, Image from <http://www.flickr.com/search/groups/?q=fossil&w=1195123%40N20&m=pool>



January Scio Open Meeting in the South:

BT Centre (BTC), 81 Newgate Street, London EC1A 7AJ

Contact: Doug Haynes; doug@ei4change.org.uk; 0151 638 3363

Session 1: A Multi-organisational, Multi-methodology approach to a 'wicked' problem **Patrick Hoverstadt**

This session will look at some of the practical implications of working on a "wicked problem" which involved multi-agency interventions using multiple methodologies. As well as a number of technical issues to do with handling each of these three aspects of a complex intervention,

there were also inevitably several softer practice issues: to do with the engagement of clients, the thinking processes of the team and the slipperiness of the problem set.

The session will focus on these 'practitioner' aspects of this highly complex project.

Session 2: OMM a powerful organisational maturity tool: **Jane Searles**

The Organisational Maturity Model (OMM) has been developed by SCiO. It is driven by a questionnaire and is designed to show the structural integrity of your organisation. The OMM allows managers to improve the capability of their organisation to operate more effectively and adapt to change. It does this by providing a framework to develop the structural integrity of the organisation.

For an individual having an explanation of the systemic causes of the problems faced can suggest alternative ways forward. The OMM

provides reassurance about aspects of the organisation that are working well and insights into those aspects of your working life that are caused by the system rather than individuals.

Who should us this?

If you want to assess the strengths and weaknesses of your organisation's structure

If you sense your organisation is not running as effectively as it might ...

If you are concerned about the long-term viability of your organisation ...

Session 3: Craft Skills Workshop - Developing Transparency & Trust: **Aidan Ward**

Transparency is simply our ability to see what is going on in a system. We need to trust ourselves and others to maintain a focus on what is important if we are to cut through the smokescreen of data and reporting.

The skills we will look at consist of the ability to ask clearly for what we need others to do, to listen to what others need from us, and to monitor how that works out in practice in a spirit of curiosity, not blame.

Session 4: Taming Organisational Complexity **Steve Brewis**

Complexity can manifest itself in a number of ways and especially when we find a situation difficult to understand. This lack of understanding results in our inability to influence the current state of affairs. This is particularly true in organisations.

As a child I did not want to feel intimidated by my situation. I needed to understand how things worked; for instance, I couldn't understand why I was able to pedal my bicycle along a flat surface and yet had great difficulty in

ascending a slight incline. What would happen if I needed a quick getaway up a hill? The bicycle was too difficult for me to understand because my language, not my knowledge, was inadequate. Today, and many years on, I find myself in a similar situation. I feel intimidated by the complexity of the organisation I work for but, unlike my childhood predicament, I now have a language that aids my understanding and helps me to tame this complexity.

Next Open Meeting:
Monday 17th January from 10am to 4.30pm, BT Centre, London

£10 fee

Lessons from a sports association study—part 2

Lessons from a sports association study

Part one explored issues around the recreational participants, whose interests were essentially ignored by the NGB and their affiliated clubs. In contrast, the bureaucracy-lite self-organised clubs attracted about 94% of all players.

Part two: Sub-optimisation

National team performance appeared to be the central focus of the NGB which moulded the way in which affiliated competitions were organised. So, an early cybernetic enquiry was raised about how the appropriate players flowed through this national sports community to deliver the international team performances. How would a talented young club player, for example, be able to get into the national team?

Participants who had paid the extra subscription to the NGB were eligible for selection to compete in representative games. The levels of competition were club, county, region and national. Each year, competitive play at each level required taking part in trials, squad skills and team training (if selected), and playing for the team (if selected). That accounts for three types of physical activity at four levels of competition; twelve in total. Provided that selection was based on merit, an excellent young player could therefore, in theory, achieve national status quite quickly. But with many club games to play as well as games at county, regional and national level, any player would find that onerous.

Whilst planning at the top levels avoided fixture clashes, club leagues had to schedule their fixtures in the remaining free dates. But with additional trials and squad training taking place at all levels, top players had an arduous time of travelling all over the country to fulfill the demands of the national system.

This hectic schedule of sport activities would have to be fitted into all the other activities of living; perhaps having to settle for part-time employment or flexi-time working, and financial juggling. It's possible that such matters could significantly affect the demographic profile of the sport; a young person's game, save for those who combined

competition with sports related employment.

Even so, the situation was likely to increase rather than decrease stress for the individual.

Discussion of these findings at an annual conference of the British association of national coaches, revealed that this sport coaching community had begun to embrace the sciences; psychology, physics, physiology, medical, etc. No comparative development could be found in the membership of NGB associations in terms of the management or organisational sciences. And yet, the roles of coaches within the NGBs varied enormously. In extreme cases, the management committees were selecting the national team whilst totally ignoring the advice of coaches on injuries and form of the contenders, but holding coaches responsible for team results.

Within sports science, the over-training syndrome was widely known at the time. That occurs when the total volume and intensity of exercise exceeds the recovery capacity, resulting in sub-optimum performance. Although this hierarchical competition system allowed top class young players to progress rapidly through 'the ranks' and provide equality of opportunity, it also led to real risks to the main goal of improving the performance of the national team.

In some sports, a more rapid promotion of young talent to advanced squads was being used to circumvent this problem. The remaining decision was when and how much promotion. Personal research on lifetime performance models had demonstrated the ability to estimate future performance capability and potentiality for use in such decisions.

At each level of competition, there were management committees and sub-committees for certain activities as laid down by the NGB. Below the NGB, these were mainly staffed by part-time volunteers, with the more active members lobbying other committees in pursuing their own committee's cause whenever such opportunities arose. Committee work in a rigid hierarchy can also become a struggle; a way of life around the status quo through lack of freedom.

**the
bureaucracy-
lite self-
organised
clubs
attracted
about 94%**

Lessons from a sports association study—part 2 *continued*.

Thinking about the dynamics of a young person's sport development raised questions about local 'feeder' systems for the recruitment of young players by affiliated clubs. Schools jealously guarded their pupils from external club activities for the most part by channeling and emphasising the status of representing the school in competition. They feared the loss of the most talented sports pupils and a reduction in school 'honours'. National school sports bodies were therefore at odds with the interests of this NGB and a few sporadic attempts to discuss the mutual support for young athletes failed. As a result, no national co-ordination process was developed for continuing sports careers for school leavers. Recruitment of affiliated club players was therefore done by personal contact.

The nature of this sport didn't tick the right boxes required to attract significant sponsorship funding

by sports media organisations. Besides subscriptions, the only significant funding was received from the national sports council. This funding was given to regional management committees on a per capita basis in terms of the registered number of members within the region. It was ring fenced for the provision of advanced skills training for affiliated members on an application, first come first served basis.

These extracts have hopefully given interested readers some material with which to consider the relevance and use of systems and cybernetics concepts; perhaps a few doodles and drawing of systems. In the final part 3, some of the issues around modeling cybernetics systems will be presented, including the dexterity of Stafford Beer in using his Viable System Model in action.

Denis Adams

Mandelbulbs

Benoit Mandelbrot (20 November 1924 – 14 October 2010) the father of the fractal passed away in October.

He coined the term fractal although he was not the first person to recognise and describe the properties of self-repeating structures and describe them mathematically. Mandelbrot's elaboration of fractal geometry related mathematically derived geometric forms to the natural world in a way that cold and clinical Euclidean geometry could not. We see these fractal forms in the satellite pictures of river deltas and coastlines and we even see them in those fantastic images of the flood plains of Mars and Titan.

A highly visual thinker, his early years were full of

maps and an ability for geometry. It is no surprise to learn that his approach to research on self-similarity was based on a use of computers to visualise the outputs of the very simple equations that can generate this behaviour.

Mandelbrot was the developer and promoter of a branch of mathematics that is very much part of the twentieth century and that underpins a lot of current thinking in attempts to understand the world around us.

For more see: <http://www.guardian.co.uk/science/2010/oct/17/benoit-mandelbrot-obituary>

Forthcoming Events

Programme of events and meetings

Dates for your diary

Please contact the PDP Team if you are interested in attending one of the Level One courses which are currently held in Manchester or Milton Keynes

SC101 Viable System Structures

SC103 The Systems Minefield

SC102 Viable system Model – Dynamics

Open Day	Mon 17th Jan 2011	Central London
Development Day	Sun 6th February 2011	Manchester
Development Day	Sun 10th April 2011	Manchester
Open Day	Mon 11th April 2011	Manchester
Development Day	Sun 3rd July	
Open Day	Mon 4th July	

Website: scio.org.uk/systems

Membership enquiries: Jane Searles [scio@janesearles.co.uk](mailto:jane@janesearles.co.uk)

Newsletter contacts: Dave Mettam, (dave@mettam.plus.com),

Gordon Kennedy (kennedygordon85@yahoo.com)

Open Meetings: Doug Haynes doug@ei4change.org.uk

SCiO