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# **Sparknow**

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The operating company for

**Spark Knowledge Ltd**

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**A collaborative enterprise  
designing spaces for knowledge**

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**Revised 2000**

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‘Rumours of my work are reaching the farthest corners of the world. People who normally would not communicate with me are now doing so in the interest of sharing their knowledge. This is deeply satisfying to me. It means that there are others like myself, living as obscurely as I do, who feel obligated to place before me the fruits of their research, however partial these might turn out to be. We have become brothers in kind, tilling the same field before spring.

*A Mapmakers Dream*

*The Meditations of Fra Mauro,  
Cartographer to the Court of Venice  
James Cowan*



## **PART ONE: DESIGNING SPACES FOR KNOWLEDGE**

### **What is knowledge?**

Good question. Karl Popper<sup>1</sup> is a good starting point. “We know a great deal. And we know not only many details of doubtful intellectual interest, but also things which are of considerable practical significance and, what is even more important, which provide us with deep theoretical insight, and with a surprising understanding of the world.” But he goes on to say “Our ignorance is sobering and boundless...With each step forward, we not only discover new and unsolved problems, but we also discover that where we believed that we were standing on firm and safe ground, all things are, in truth, insecure and in a state of flux.”

Looking at knowledge as a dynamic awareness of ignorance is a good starting point. How about putting it in context?

How do you know how to ride a bike? Take somebody’s appendix out? Provide patients with the right healthcare? Join the right check out queue at the supermarket? Find the best school in the neighbourhood? Develop a new product? Marketing strategy? Valuable client relationship?

If you start by considering ‘applied knowledge’ you can then move to a practical consideration of the sources of knowledge.

The obvious sources are libraries, books, newspapers, magazines, databases, research reports, project plans. And of course training, school, university. But none of those sources normally provides real knowledge. You find out how to ride a bike by doing it, probably with your parents egging you on. You ask about plumbers in the local pub or shop in preference

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<sup>1</sup> Popper Selections, Edited by David Miller  
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to looking in the yellow pages. You find out about schools from other parents and children, and from visits, as well as from prospectuses.

A doctor has years of training, then years of experience. And added to that the support of nurses, anaesthetists, junior doctors, paramedics etc in determining whether an operation to remove an appendix is the right action to take under the circumstances and then in performing the operation and managing post-operative care.

This leads to some thoughts about the characteristics of knowledge.

1. The cliché of hierarchies of data, information, knowledge, wisdom is of limited value. It is too static and structured. One man's data is another man's knowledge.

2. In any case, with the amount of global information doubling every two years there is a basic practical obstacle. Time. There is not enough time for the systematic processing of vast quantities of information.

3. On the other hand technology works in favour of speed, and breadth of sourcing. It also works strongly in favour of a knowledge democracy. Knowledge becomes unhierarchical, and accessible to all, with far-reaching consequences:

“A sign of value to the organisation will not be standing at the top of the heap but having the most hyper-linked roles - interactive knowledge will become at least as important as specialised knowledge. Hyper-linking of organisations is happening already; unless it is managed, it loosens the grip of management without substituting any equivalent guidance. But even if you were able to restore the corporate monarchy, the democracies next door are going to outsell, outperform and outrun you.”<sup>2</sup>

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<sup>2</sup> David Weinberger in Wired  
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4. Knowledge is useless unless it is put to work. Tom Stewart<sup>3</sup> has recently developed the concepts of Intellectual Capital and Intellectual Working Capital. This is a highly pertinent distinction. The components of intellectual capital are typically defined as human capital, structural capital and customer capital. But this only produces value if it is put to work.

“Intellectual capital represents the resources that produce imagination, inventiveness, and competitiveness through the generation and dissemination of thoughts, ideas and fresh approaches. It is the sum and synergy of knowledge, experience, relationships, processes, discoveries, innovation, market presence, and community influence.”<sup>4</sup>

5. The flip-side to this is that you normally have to do it (whatever it is) to figure out how to do it (or, more frequently, not to do it). So knowledge is directly experimental and iterative. It is about real life, true stories.

6. Knowledge is very context specific. Its value is in the applied circumstances in which it is created. This is something well understood in, for example, law. Legal precedents provide legal judgement in its specific context. But often it has most value when put in a new context which exposes some unexpected application and challenges current perception.

7. But it is also the stuff of dreams, stories, myths, legends and fables. Lessons are pooled and recast in forms where the wisdom, knowledge, observations are passed on.

“Quantitatively and qualitatively by far the most important source of our knowledge - apart from inborn knowledge - is tradition. Most things we know we have learnt by example, by being told, by reading books, by learning how to criticise, how to take and accept criticism, how to respect the truth.”<sup>5</sup>

8. Knowledge is messy, interactive, changing and complex. It is extremely dynamic, and its quality and relevance is improved if it is challenged repeatedly and many points of view,

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<sup>3</sup> Award-winning member of the board of editors of Fortune magazine and pioneer in the field of intellectual capital.

<sup>4</sup> ‘Valuing Intellectual Capital’, Ian Rose, IBR Consulting Services, August 1997

<sup>5</sup> Karl Popper again, ‘Knowledge without Authority (1960), Popper Selections



passions and convictions are brought together in a crucible of debate. The power of knowledge is generated through these activities.

9. Because of its messiness and the way it evolves, knowledge is largely autonomous. We react to knowledge, whether we know it or not. And our reactions feed back into the knowledge and change it. In fact it would be almost impossible for us not to generate or challenge it. That means that there can be no territory in knowledge. It cannot be owned. It is above ownership. As one person said recently 'Knowledge cannot be owned. It is in the commons of an organisation, it can never be private land.'

10. Above all knowledge is social. It emerges from networks, collaborative activity and communities with a common ambition. Charles Handy, in an introduction to a Demos publication on Social Change said

"Imagination starts with individuals but flowers with groups...and it needs the power of the organisation to bring it to its full potential."<sup>6</sup>

### **So what is knowledge management?**

The smart retort is that it is an oxymoron. Knowledge cannot be managed. The closest one can get is to say that knowledge management starts with an understanding of the processes that generate value. True 'knowledge' amalgamates information from a variety of internal and external sources and past experiences, identifies the gaps, passes judgement on the value of the distilled intelligence and acts accordingly. This implies a complex process from the systematic and opportunistic assembly of pieces of information, through the conversion process and to the point of passing judgement on it. Not only that, this is largely an instinctive activity, the act of a human being, not a machine.

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<sup>6</sup> Cite reference  
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Once this is evident, it becomes clear that knowledge management needs to balance the rigour of maps, research diagnostics, analysis and monitoring with the purposeful design of real and virtual spaces where people can

discover what they (and others) know (and don't know)

exploit what they know

and

share and increase what they know.

We believe that this is at the heart of the matter. The spaces might be books, research projects, libraries, cafes, intranet forums and team rooms, intelligently constructed archives and catalogues, events, training programmes. These are external manifestations of different spaces of discovery, exploitation, sharing and increasing.

There are also internal spaces. For example, the time to think, reflect, watch, listen, not always to be doing. The time and space to take risks, challenge the system, push the envelope, cross boundaries. Places of greater safety in which to experiment, fail, learn from failure and apply the lessons to the next experiment.

The twin founding principles of any intent to generate significant value from knowledge are an understanding of spaces and of design. In effect these principles in action lead to the creation of a 'parallel structure' around the actual overt structures which govern a corporation, health trust, government body, charity.

The creation of such outer and inner spaces will, we passionately believe, bring speed, effectiveness, creativity and innovation to the forefront of any corporation or group which takes the time and trouble to create them.

The highest standard of design thinking needs to be applied to the creation of all of these spaces, and of the active connections that are created between them.



Sir Richard Rogers spoke recently at an event arranged by the Forum for the Future on Sustainable Cities. One of his slides described the seven facets of 'the ideal city'. These sum up far better than we could the founding principles of design for knowledge spaces.

**'The Ideal City'**

**A Just City**

that uses all its resources for the long term benefit of all its citizens

**A Beautiful City**

because art, architecture and landscape challenge the imagination and move the spirit

**A Creative City**

because it is open to new ideas, it mobilises the full potential of its human resources and responds quickly to change

**An Ecological City**

because a city whose buildings and infrastructures are safe and resource efficient, reduces its ecological impact and safeguards the health of its citizens and their future sources of supply

**A City of Easy Contact**

because face to face contact is the essence of a civic community

**A Compact and Polycentric City**

because this protects the countryside, focuses communities around neighbourhoods and minimises dependence on cars

**A City of Overlapping Activities**

because this maximises diversity, integrates communities and fosters a vital public life



## **PART TWO: PEOPLE, SKILLS AND COMMUNITIES**

So we have moved through the characteristics of knowledge, the founding principles of space and design in generating value from knowledge. This brings us on to the people and skills need to create and survive in the knowledge intensive era we are in. We make no apologies for once again drawing on pieces of thinking which have been key in creating our approach to developing knowledge capabilities. The first of these deals with some aspects of communities, collaboration and diversity, and is again drawn from thoughts about cities.

In the late 1960's Richard Sennett<sup>7</sup> wrote a series of essays called 'The uses of Disorder, Personal Identity and City Life.' In it he proposes a functioning city that can incorporate anarchy, diversity and creative disorder. In his suggestions for action he says "I believe diverse communities do not arise spontaneously, nor are spontaneously maintained, but instead have to be created and urged into being." He argues that compartmentalisation is reinforced by affluence because "affluence weakens the need for sharing of scarce goods and services." His three key recommendations for change are increased density of living; a concerted effort to effect socio-economic integration of living, working and recreational spaces; and the removal of central bureaucracies from their present directive power.

Three kind of institutional change, Sennett argues, will be produced. First, there would be a radical broadening of people active as the city's planners and leaders. Second, political 'image' or personality would become a less important factor in choosing elected officials. Third, and most importantly, the phenomenon of family intensity would be greatly weakened - old professional boundaries are broken down, and people with particular talents for dealing with special situations, talents developed out of experience as well as out of prior training, can put them to use.'

"Dense, disorderly cities would challenge the capacity of family groups to act as intensive shelters, as shields from diversity. For the whole thrust of these urban places will be to

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<sup>7</sup> reprinted 1996... 'The best available contemporary defence of anarchism' New York Times  
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create a feeling of need in the individual that he has to get involved in situations outside the little routines of his daily life in order to survive with the people around him.”

The second piece of work that has influenced us greatly is some research by Demos<sup>8</sup> into the emergence of the role of the social entrepreneur as one of the most important sources of innovation in creating social change. “Social entrepreneurs identify under-utilised resources - people, buildings, equipment - and find ways of putting them to use to satisfy unmet social needs.” They work at the edges, in the interstices between the public, private and voluntary sector. The study undertaken by Demos looks at five schemes that create forms of active welfare, which are both cheaper and more effective than the traditional services offered by the welfare state. But more importantly, the research identifies some key qualities, skills and values common to the leaders of all these schemes, which, we believe, are as apposite for organisational change and leadership as they are for social change. These entrepreneurs are:

**entrepreneurial:** they take under-utilised, discard resources and spot ways of using them to satisfy unmet needs

**innovative:** they create new services and products, new ways of dealing with problems, often by bringing together approaches which have traditionally been kept separate

**transformatory:** they transform the institutions they are in charge of, taking moribund organisations and turning them into dynamic creative ones. Most importantly they can transform the neighbourhoods and communities they serve by opening up possibilities for self-development.’

The qualities they all have are of:

mission-setting and leadership

storytelling

people recognition

visionary opportunism

alliance building.

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<sup>8</sup> Charles Leadbeater, ‘The Rise of the Social Entrepreneur’, Demos 1996  
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Tom Gladwin has done extensive work on the Leadership Challenges and Management Education of the 21<sup>st</sup> Century. In a recent seminar on Sustainability and Profitability<sup>9</sup> He defined four key sets of driving forces, challenges, competencies and skill-sets for the 21<sup>st</sup> century.

### **Challenges**

Morality

Rapidity

Interactivity

Cybernetivity

### **Competencies**

Worldcentric  
ethical consciousness

Intuitive creativity and  
entrepreneurship

Emotional and Collaborative  
Intelligence

Symbolic Perception and Abstraction

Although he has developed this framework primarily with the thrust of developing competencies to meet environmental challenges, these are, it seems to us, exactly the same sets of competencies which are needed to meet the challenges posed by intellectual capital.

Hubert St Onge<sup>10</sup> outlines five groups of competencies. At the core is the ability to create a common purpose. The four satellite sets of competencies are

pattern recognition

decisiveness, the ability to act with speed

the ability to collaborate

the ability to manage partnerships.

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<sup>9</sup> Sustainability and Profitability: Conflict or Convergence?' Business In the Environment Seminar, Salzburg, September 1997 . Tom Gladwin is Professor of Management and Director, Global Environment Program, Leonard N Stern School of Business, USA

<sup>10</sup> Hubert is Director of Strategic Capabilities at Mutual Life of Canada. He was outlining these competencies at a recent Chief Knowledge Officer Summit hosted by TFPL in London .



From these, and many other guiding thoughts and observations, together with our own experiments, discussions and work, we have evolved six founding principles of individual and team competencies. These emerge from our key metaphor for knowledge management – the metaphor of operating simultaneously along three axes to achieve your goals.

Mapping the horizontal axis to discover your resources

Drilling into the vertical axis to mine your resources and exploit them

Connecting as the third dimension from which emerges critical mass, innovation, the unexpected and the stories of knowledge created.

#### 1. Mapping and Navigation.

Identifying where your intellectual capital is stored is the starting point. Then creating guides that will make it widely available, which make the pathways and networks, expertise and experience of the enterprise transparent to all. The skills of cartography bring together research, pattern recognition and design skills:

--the ability to find and select information from many different sources and synthesise it into a single consistent set of data

--design skills to create a final map which will correctly portray the intended message to readers who vary greatly in map-reading skills

--manual dexterity to draw up symbols, lines etc, so clutter is minimal.

--graphic design skills to simplify often complex patterns into simple ones

In order to create the navigation, written and electronic guides need people to bring them alive. A key competence we have identified is expertise about expertise. A kind of meta-people who can act as navigators at the junction points into and out of a particular area. They can point people to experts, documents, data and activities. They also act as outreach, gathering and passing on stories and experience. So they are also a key part of the storytelling networks which bring knowledge to life.



Very early on, in a paper on Global Information Flow<sup>11</sup> we identified navigation as something it was critical for any major firm to understand. 'Navigation creates a dynamic process for capturing, distilling and enhancing information to identify 'Edge'. It orchestrates design, acts as a laboratory, works firm-wide to develop protocols round information; to catalogue and use the firm's experience. Navigation plays a dual role - both at the edge and at the heart of the firm.'

## 2. Drilling, Geology, Experimentation

Because the most valuable knowledge is feedback from real experience, which is then built into the evolution, or triggers necessary revolution, the ability to experiment systematically is key. Activity at the coal face, drilling right into the detailed people, process, technology issues, designed to achieve a specific purpose, the aim of doing more transactions, or building an oil rig quicker, or redesigning the healthcare package for outpatients and, importantly, the parallel activities of coaching, observation, anthropology. These will create from the specific experience a 'How to Do It' story of value to others. True stories, based on real collaborative experiences from which practical lessons can be learned and applied elsewhere.

## 3. Connecting, Storytelling, Community building

The active sparking of connections between people and people, people and information, experience, stories. This is done by creating communities with a common purpose, with an initial framework designed to give those individuals something they need. Then creating, through contact, debate, events, a different perspective for them so that they begin to understand the contacts between people, space, information, technology, and the intellectual capital challenge.

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<sup>11</sup> The KnowlEdge Formula, Victoria Ward, November 1996  
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#### 4. Diversity, Perspective, Inclusiveness.

This is the use of diverse, even abrasive, skills and personalities in teams; the deliberate inclusion of outsiders with unexpected angles on problems and solutions. In particular, it is the inclusion of all those who wish to join. The purpose of knowledge management is not to create dream teams, but to create teams with dreams.

#### 5. An instinct for librarianship, entrepreneurial librarianship, e-publishing skills.

The role of the librarian, and more importantly librarianship, is almost entirely overlooked, and certainly underestimated. An archiving or cataloguing project is not a document management project. A search-agent, and a few key words will not create the kinds of structured guidance to banks of knowledge which make a firm's knowledge and expertise work actively for it rather than lie fragmented, duplicated or unused. And as more and more information is made available online, all of us go into electronic publishing as one of our main activities without realising the implications of content management, editorial skills, purging, policing, abstracting so that real value is created from what is made available.

#### 6. Design,

We have already written of the importance of designing spaces for knowledge. Logically, therefore, the active inclusion of design skills in any collaboration is an important, and, we think, overlooked aspect. Overlooked because design is more generally seen as a manufacturing or artistic thing, and is vastly underused in the creating of value from intellectual capital. (Illogical when one considers the amount of design effort which is put into managing brand, which is an equally intangible asset. Perhaps brand is so shrouded in mystery and alchemy that design is acceptable. Whereas intellectual capital has an apparently logical connotation, particularly as most programmes are mistakenly founded on the management of information, data etc. Another reason for this, we suspect, is that it accidentally falls down a gap between the business manager and the technology team. And finally, it is too easy, with dangerous and horrible consequences, for the enthusiastic amateur to launch into, say, web-site design using a self help book and an internet forum to get them started)



## **PART FOUR: SPARKNOW?**

Over 8 months of developing a knowledge management programme in NatWest Markets we have developed a body of work, products, solutions, thoughts and approaches which we would like to build on in collaboration with others. And a momentum, energy and clarity of purpose which we believe can add value to the pioneering work being done on understanding and managing intellectual capital for systematic benefit as well as for revolutionary and innovative breakthroughs.

We want to take on the challenge of moving into uncharted territory, using the underpinning of our metaphor of mapping, drilling and connecting to design for and with people practical products, solutions and approaches which meet their immediate needs while creating a foundation for long term sustainability and profitability.

We want to create with others

1. a living memory of the important learnings of the past,
2. a collaborative cyber-soap of the present with inner and outer spaces designed for knowledge, and
3. an ambitious myth of the future which will energise currently inert value and catalyse new connections, thought and radical change.



## **SPARKKNOW**

**a collaborative enterprise  
designing spaces for knowledge**

*To enable individuals, firms and other ventures to  
discover what they and others know and don't know,  
exploit what they know,  
share and increase what they know.*

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