

Towards Integral Culture Change Initiatives to Support Knowledge Management

Alex Goodall (Unisys Ltd)
Robert Taylor (Unisys Ltd)
Suzanne Pollack (Henley Management College)



Acknowledgements

This paper is the result of many peoples' contributions. We greatly appreciate these and wish to acknowledge them.

We are especially indebted to John Forman from Integral Development Associates in the USA (<http://www.integraldevelopment.com>). John has not only guided our thinking on Integral Theory, but also made a significant contribution to the population of the Grids.

We also had very useful discussions on the subject with Matthew Kalman.

Both Matthew and John are members of the Integral Institute.

All the members of the project team have been our fellow journeymen, discovering interesting and challenging ideas. Their discussions and insights, expressed during the course of this project, provided all the ingredients for this paper.

Working Group Members who made a particular contribution to the preparation of this report are:

Christine van Winkelen	(HMC)
Karen Battersby	(Nottingham Business School)
Steve Simmonite	(EZI)
Peter Hall	(Orange)
John Forman	(Integral Development Associates)

Thanks are also due to other members of the Working Group:

Richard Potter	(QinetiQ)
Eric Ostrowski	(EC Harris)
Quentin Stellar	(HECM)
Tony Sheehan	(Arup)
Simon Springate	(Metronet Rail BCV)
Matthew Kalman	(Chartered Institute of Library and Information Professionals and the Integral Institute)
Paul Landraitis	(Integral Development Associates)

Executive Summary

As far as we can determine, this project is the first in the world to apply a specific philosophical approach – Integral Theory – to knowledge management.

As its name suggests, Integral Theory is concerned with bringing together into a consistent framework ideas from multiple sources. It provides a new way of looking at and understanding almost any discipline, and a means of integrating different approaches to that discipline. It has been, and is being, applied to areas such as medicine, politics, education, psychology and many others.

In this project we have not attempted to apply Integral Theory to the whole of knowledge management. Instead, we have restricted investigations to cultural interventions that support knowledge management.

A significant part of the project was taken up with understanding how one should apply Integral Theory: the concepts themselves were not hard to understand, but their application proved very challenging.

Nevertheless, we have developed the ideas far enough to show the following:

- How Integral Theory can be used to analyse and create a single framework for the various approaches to culture and culture change, and in particular as it applies in a knowledge management context.

- How it can be used to gain a much better understanding of the hidden motivators and drivers of the knowledge workers – both individually and collectively - for whom we are designing interventions.

- How that knowledge can be used to design more appropriate and better integrated interventions.

- How that knowledge can be used to better understand why particular interventions are not as successful as we might have hoped, or evolved in ways that surprised us.

We have produced an early version of an analytical tool that shows how many of the above could be put into practice, but rather more work is required before it could be released for practical application.

However, several of the concepts of Integral Theory (especially quadrant analysis and the development levels of Spiral Dynamics) are very powerful in their own right. Simply understanding these ideas (by reading this paper and where necessary following up on the key references) can be extremely beneficial. The section on *Integral Insights into Organisations* shows how three project team members simply took these raw ideas and used them to better understand their own businesses.

Finally, we have outlined how this work could be taken forward in a future project.

1. Introduction

This project had a most interesting genesis and its execution has been a real journey of discovery for the project team. The Appendix describes this in more detail, but in essence, the starting point was the idea to apply a philosophical model known as Integral Theory to knowledge management (KM) to see whether and how it might improve our understanding of KM.

It quickly became clear that the union of Integral Theory and KM was a huge domain. So with an eye on restricting ourselves to the possible, together with the need to stay grounded in the practical, we defined some boundaries for the project. The title of this paper- *Towards Integral Culture Change Initiatives to Support Knowledge Management* nicely defines those boundaries.

We must make it immediately clear, however, that this is still a work-in-progress for two reasons. Firstly, even our limited objective constitutes a very large undertaking – too big to complete in such a short timeframe. And secondly, our understanding of how to apply Integral Theory developed during the course of the project, but still has some way to go – despite excellent coaching from a recognised expert in the field – John Forman.

Nevertheless, we have achieved two useful results:

1. We have demonstrated that Integral Theory can provide valuable insights into KM, and has the potential to provide a truly integrative framework for the whole of KM. This is most certainly a very fruitful line of enquiry.
2. We have produced the framework of an analytical tool that could be used today to assess and suggest change initiatives to support knowledge management.

This paper has the following structure.

Background to Integral Theory provides a short introduction to Integral Theory, introducing the main concepts that are used in this work – quadrants, levels and lines.

A Basic Quadrant Analysis of some KM and Culture Concepts takes the top-level idea in Integral Theory and shows how that in itself can provide additional insight and understanding to established ideas of culture and knowledge management.

A Preliminary Model of an Integral Analysis of KM and Culture takes the application of Integral Theory two steps further by employing additional concepts from the theory (lines and levels). This section presents the framework of the analytical tool that is the main output from this project.

Integral Insights into Organisations contains some case studies from members of the project team. These are not formal applications of the analytical tool, but more informal accounts of how an understanding of Integral Theory has provided team members with a deeper understanding of the dynamics of applying knowledge management within their organisations. This section also includes Buckman Labs as a case study.

Learning Points and Next Steps includes some comments from project team of what they have gained from their participation in the project, and suggests what the next steps might be for continuing this exciting journey.

2. Background to Integral Theory

Integral Theory is a framework for thinking about and integrating our understanding of the world, created by one of the most widely read living philosophers – Ken Wilber. A commentator wrote of his major work *Sex, Ecology and Spirituality* “it honours and incorporates more truth than any approach in history”.

Wilber's aim is to create a theory that encompasses as many disciplines as possible: indeed, his latest book is called “A Theory of Everything”. One could describe his achievement by saying that he has managed to abstract a number of core principles or patterns from across multiple disciplines, including psychology, sociology, physics, biology, politics, religion, mysticism and more. These principles provide us with a much deeper and clearer understanding of all the areas from which they were derived.

An Integral Institute has been set up, with branches starting to apply the theory to: medicine, psychology, spirituality, business, ecology, education, art and politics. Other planned areas include media, diplomacy and law. As far as we are aware, this paper is the first time these ideas have been applied to knowledge management.

2.1 Overview of the Principles

In this paper we can only provide a very condensed, and simplified, summary of Wilber's main ideas. The interested reader is encouraged to read "*A Theory of Everything*" for a fuller picture. This book provides a "layman's summary" of Wilber's work to date. Many people have found it to have something of a transformative effect on the way they view the world.

Quadrants

The core principle of Integral Theory is that any entity, concept or issue has four aspects that must always be taken into account for a complete understanding. These four aspects – often represented as four *quadrants* - are:

Representing these aspects as quadrants gives emphasis to the two underlying dimension:

- the Interior/Exterior Dimension
- the Individual/Collective Dimension

The key characteristic that differentiates between the interior and exterior is whether or not some aspect can be seen. For example, values and beliefs cannot be seen, so they belong to the left-hand quadrants. On the other hand, the behaviours that those values and beliefs give rise to *can* be seen, so they belong in the right-hand quadrants.

For example, take a human being. To fully understand an individual human being, we have to consider the "I" (consciousness, psychology), the "It" (brain, body, behaviour), the "We" (culture/values) and the "Its" (society/institutions). In the same way, to fully understand humanity (as a collection of human beings) also requires the same analysis of four quadrants.

Each quadrant influences and depends upon the other three.

This last point is one of the most important tenets of Integral Theory.

Lines and Levels

Developing this idea further, within each quadrant there are one or more *lines*, which go through a number of *levels*.

These are levels of development or advancement or evolution or combination into more complex forms (such as atoms to molecules to cells to organs to bodies etc.). The idea of "moving up the levels" is central to Integral Theory. For example, in the upper left we can have the idea of moving through levels of consciousness; in the upper right we can include levels of brain evolution and measurable brain states; in the lower right we could have levels of social systems and environments; and in the lower left, levels of culture and worldviews.

The next refinement is to note that the levels across all quadrants are linked. Thus, to create a certain level of social system in the LR quadrant (such as "corporate states", say), members of society need to be at a certain level in the LL quadrant of culture ("scientific-rational") and worldview ("modernism"), and the individuals need to be at some average level of consciousness in the UL quadrant ("achiever self"), and this can only be achieved by the brain – in the UR quadrant - being at some particular level of development. It is possible for development in any one quadrant to get ahead of or fall behind development in any of the others and this can cause disequilibrium in a system or lead to

opportunities for growth, interventions or further exploration. Similarly, we can over-privilege one or two dimensions at the expense of the others leading to other kinds of disequilibria.

The lines and levels idea can be summarised by the following diagram. Only one line is shown in each quadrant, but in principle there could be many lines in each. The concentric circles represent the levels (there could be many more than the four shown). By using circles we indicate that *levels across different quadrants are linked*, as described above.

2.2 Levels in more detail – Spiral Dynamics

The concept of “levels”, as we saw above, is central to Integral Theory. In his book “*Integral Psychology*,” Wilber shows how developmental levels from many different disciplines and schools of thought (over 130), across all four quadrants, can be correlated with each other. Some of the better-known examples are Maslow’s Needs Hierarchy, Piaget’s child development levels, the Hindu Chakras, and human social development (from the Paleolithic age to Globalisation).

Although Wilber has developed his own set of levels for many developmental lines, he often uses other peoples’ systems in his examples. One system that is now widely taught and referenced (and which Wilber uses as an example in “*A Theory of Everything*”) is the Spiral Dynamics model.

An excellent six-page summary of this can be found at Spiral Dynamics Online: http://www.spiraldynamics.org/pdf_resources/SDMC.pdf

The full Spiral Dynamics model includes eight developmental levels. For convenience, these are referred to by colours. For our purposes, we are using only four of the full eight levels, omitting the first three and the final one, since these cover the great majority of situations in business.

Blue Order-Driven	Stability/order; obedience to earn reward later; meaning; purpose; certainty; conforming; guilt; authoritarian structure Is absolutistic. Operates obediently as directed by a higher authority or by rules.
	<i>Where seen:</i> Puritan America, Confucian China, Dickensian England, Singapore disciplin, totalitarianism, codes of chivalry and honour, charitable good deeds, religious fundamentalism, Boy/Girl Scouts, “moral majority”, patriotism
Orange Achievement-Driven	Opportunity/success; competing to achieve results; influence; autonomy; test options; manoeuvre, logical reasoning. Is multiplistic. Operates pragmatically to achieve results and get ahead in a rational world
	<i>Where seen:</i> The Enlightenment, Wall Street, emerging middle classes around the world, cosmetics industry, trophy hunting, colonialism, the Cold War, fashion industry, materialism, secular humanism, liberal self-interest, (“Thatcher Years”?)
Green People-Driven	Harmony/love; joining together for mutual growth; awareness; belonging; affiliative, situational, consensual, fluid; social network Is relativistic Operates by responding to human needs
	<i>Where seen:</i> Deep ecology, postmodernism, liberation theology, cooperative inquiry, World Council of Churches, Greenpeace, animal rights, politically correct, human rights issues.
Yellow (Tier 2) Integrative <i>First stage that can recognise and value all other stages</i>	Independence/self-worth; fitting a living system; knowing; good questions; functional; interdependent; accepting; process-oriented; systemic-flow.(Cognitive complexity) Is systemic Operates in an integrative manner
	<i>Where seen:</i> Too few to form any identifiable groupings.

These levels are not meant to be used as a way of categorising individuals, and neither is it necessarily the case that it is better to operate at a higher level than a lower. For example, with insufficient Blue in society, there is a lack of cohesion and order: Blue is essential.

More generally, there must be healthy expression at *each* level if the health of the entire system is to be maintained. The significance of “Yellow” being classed as “Second Tier” or “Integral” is that it is the first level at which the values of *every* level can be acknowledged: each can be engaged in concert with expressions based in other levels.

At each level it is possible to operate both functionally and dysfunctionally. Operating *exclusively* at any level is a form of dysfunctionality since each successive level should, according to the proponents of such developmental models, transcend *and include* all previous levels.

3. A Basic Quadrant Analysis of some KM and Culture Concepts

In this section, we take the quadrant concept from Integral Theory and show how it can be used to provide some additional perspectives and insights into KM and culture.

Before embarking on this analysis, we have to make a comment about the meaning of the term “culture”

Concepts relating to culture that have been explored because of their impact on knowledge management include:

Diagnosing an organisation’s “Cultural Web” through its stories, structures, control systems, power systems, symbols, rituals and routines (Johnson and Scholes, 1999)

The concept of “Dominant Logic” (Bettis and Prahalad, 1995)
The concept of the “Collective Mind”, (Merali, 2001)
“Justified True Belief” as one aspect of the definition of knowledge, (Sveiby, 2002)
Benchmarking best practice (American Productivity and Quality Center, 1999)
Hofstede’s model of cultural dimensions (Hofstede, G, 1991)

A question one might ask is – which is the best model of culture and KM? Which is “right” and which is “wrong”? However, as Wilber points out in other contexts, no-one is wrong all the time – meaning that there are likely to be elements of truth in all approaches. What would be most useful, therefore, would be a model or a framework that integrates all approaches: that recognises and values the (partial) truths from all cultural theories.

Integral Theory is, of course, designed to do precisely that. It provides a framework into which disparate approaches can be placed and integrated.

In this section of the paper we present a very tentative first step in that direction by demonstrating how a simple quadrant analysis can start to bring together different approaches to culture and KM. In each case we start with a thumbnail sketch of a “cultural” idea, and then unpick it using the idea of the quadrants.

3.1 Cultural Web (Johnson and Scholes)

Johnson and Scholes state that:

The culture of an organization can be “diagnosed” through its stories, structures, control systems, power systems, symbols, rituals and routines

These elements are largely emphasized in the lower right quadrant (collective exterior). Of course, they strongly influence and are influenced by interior dimensions (upper and lower left), but none of these are explicitly mentioned in this sentence.

As a means of diagnosis, this is what one might expect since it is impossible to directly measure the interiors (left-hand quadrants): they have to be inferred by measuring/interacting with the exteriors – precisely what Johnson and Scholes indicate.

3.2 Dominant Logic (Bettis and Prahalad)

In the same way that individuals develop mental models (patterns of assumptions) that act as a form of short hand to help them make sense of the world, organizations develop a “dominant logic” which tends to constrain the options that are seen as feasible, what is considered acceptable, what is viewed as important etc. etc. This dominant logic is one element of an organization’s culture that influences attitudes to knowledge management: whether it is viewed as important, what strategic approach is adopted, how acceptable it is to share knowledge, whether collaboration is the norm etc

Dominant logic sits more firmly in the lower-left quadrant.

3.3 Collective Mind/Cognitive Infrastructure (Merali)

The concept of “collective mind” is somewhat controversial, but is a useful construct to describe the way in which members of an organization jointly make sense of the environment, integrate their knowledge and commit to action. The “collective mind,” also called the cognitive infrastructure, is made up of four components:

- a. The dominant logic.
- b. The roles people take on and the way these determine how they interact
- c. The relationships between individuals that determine the content and structure of the knowledge networks to share and diffuse ideas
- d. The shared self-concept, or sense of organizational identity

We can map these against the quadrants as follows:

Upper left (Individual Interior):

- *Self-concept*
- *Roles*

Lower left (Collective Interior):

- *Collective self-concept*

- *Organizational identity*
- *Dominant logic*
- *Relationships between individuals*
- The collective *knowledge* and *ideas*

Upper right (Individual Exterior):

- The roles determine how people *interact*

Lower right (Collective Exterior):

- *Content and structure*
- *Knowledge networks*

Material infrastructure reflects the cognitive infrastructure, as when budgets are allocated and office equipment is constructed to facilitate enacting the agreed upon roles and priorities and dominant logic of the group. At the same time, these factors co-evolve, as when email distribution lists built to reflect the group's sense of optimal teamwork results in awareness of conflicting priorities between subgroups and attention is then directed to further clarification of roles and goals.

3.4 Knowledge as "Justified true belief" and "The capacity to act" (Sveiby)

Sveiby (2002) defines knowledge as both "justified true belief" and "the capacity to act."

- Justified true belief – "know what" or "know that" which provides the raw material for decision making and includes facts, assumptions and values.
- The capacity to act – "know how" derived from resources such as procedures, rules and mental and physical abilities. This is the knowledge base that we activate when we make decisions.

We can map these ideas against the quadrants as follows:

Upper left (Individual Interior):

- *Belief*
- *Facts, assumptions and values*
- *Mental and physical abilities*

Lower left (Collective Interior):

- *Rules* (as interpretations or unstated)

Upper right (Individual Exterior):

- *act*

Lower right (Collective Exterior):

- *Procedures*
- *Rules* (stated)

3.5 Benchmark Organizations (American Productivity and Quality Center)

What does a culture look like in which there is effective knowledge exploitation? Detailed benchmarking studies by the American Productivity and Quality Center pointed to the cultural factors that are present in best-practice organizations and which "*draw people in to be interested in, excited about, and motivated to share their own knowledge and build on the ideas of others*"

The factors present in the cultures of benchmark organizations map onto the two "collective" quadrants as follows:

Lower Left (Collective Interior) :

- People saw the connection between sharing knowledge and the purpose of the business.
- Knowledge sharing was closely linked to a core value of the organization.
- Strong management and peer pressure encouraged people to help each other and to collaborate.

Lower right (Collective External):

- Knowledge was shared to solve practical business problems or achieve specific objectives: the outcome of sharing was clearly understood.
- The style of each knowledge sharing process or activity was consistent with the style in which other things happen in the organization.
- Knowledge sharing was integrated into normal work by embedding it into routine processes or by holding visible knowledge-sharing events.
- Management support was appropriate for the scale of the overall effort to share knowledge.
- Informal networks were supported without needing to be formalised.
- Both formal and informal networks of people were facilitated to ensure that people actively participated.

- Reward and recognition were aligned with knowledge sharing practices.

3.6 Cultural Dimensions (Hofstede)

Hofstede's cultural dimensions recognise the difference between hidden, internal values and visible, external elements such as rituals, heroes and symbols. Cultural differences are seen as differences in these two areas. This model, therefore, maps quite readily to the LL and LR.

3.7 Discussion

Knowledge management practitioners know that culture influences the behaviours, values and beliefs that are central to knowledge creating, sharing and application – and is also influenced by them. Research has shown that there are four main influences (De Long and Fahey 2000) and we can see that these relate directly to the four quadrants:

Culture shapes one's assumptions about what knowledge is and which knowledge is worth managing (UL).

It defines the relationship between individual and organisation knowledge, that is, who is expected to control specific knowledge, who must share it, who can hoard it and the specific observable behaviours by which one would confirm or disprove the validity of those relationships (UR).

It creates the context for social interaction that determines how knowledge will be used in particular situations (LL).

It shapes the process by which knowledge is created, verified and distributed in organisations (LR).

We suggest that using the four quadrant model to “make sense” of the impact of organizational culture on knowledge management in the ways that we have been looking at in this section has real practical value. Rather than being a vague and poorly defined concept that we know is important but aren't really sure how to influence, we can start to appreciate what makes up organizational culture and the interdependencies of its various components. This gives us a much better starting point for designing and implementing initiatives.

In the next section we will look at how to recognise and work with the differences in outlook of all the people in our organizations when we come to design and communicate knowledge management approaches.

4. A preliminary model of an Integral analysis of KM and Culture

In this section we attempt to provide a more in-depth analysis of KM and Culture by adding Levels and Lines to the Quadrant analysis. Here we present the major results of the project.

4.1 KM and Culture Levels and Lines

We have taken each quadrant, split it into levels using the Spiral Dynamics model, and attempted to create some prototypical “lines”. This is by no means a complete “All Quadrant, All Lines, All Levels” analysis of the KM and culture domain (which a complete application of Integral Theory would demand), but it is a step in that direction, and we believe it begins to show how these ideas could have practical benefit. First, in summary form, here are the quadrants showing the “lines” that we selected:

Each of the following grids takes one of the quadrants and splits each of the bullet points (the prototype “lines” into four levels. For simplicity we use Spiral Dynamics levels for all quadrants.

Upper Left – Interior “I”

	Individual Perspective	Belief: What is KM for?	Motivator: What Can KM Do For Me?
Blue	“Conventional” Purposeful conformity to One Truth	“To establish and maintain order; support roles/hierarchy; protocol; support for OUR business unit; dept; community” “To make it easier to find official documentation” “Minimise risk”	Rule orientation; “us vs them” “Help me run my department more effectively by making it easier to set up standard procedures for everyone to follow.” “Provide a mechanism for ensuring my top experts are consulted whenever there is a problem” “Make it easier for me to know what I should be doing and when”
Orange	“Achiever” Mastery; my own development and achievement	“To support my efforts and goals; a strategic tool; enhanced efficiency through ever-improving technology” “To organise and structure content”	Pursuit of excellence; status; often material gain “Allow me quickly and easily to find just the right document or the right person I need, when I need it.” “Provide me with additional opportunities to learn, enhance my effectiveness and be recognised”
Green	“Pluralist” Community; everything is relative	“To relate myself to other ‘selves’; for affiliation; enhancing interpersonal communication” “To provide the opportunity for everyone to make their contribution” “To break down all barriers (structural, cultural etc.) to the sharing of knowledge”	Sensitive, humanistic equality “Give me an opportunity to have my unique perspective valued.” “Allow me to both connect with others around idiosyncratic interests and promote consensus and inclusion across whole group” “Allow me to contribute my knowledge more effectively, spontaneously, informally”
Yellow	“Integral” Systemic, flexible flows with change and complexity	“To support natural complexity and flow of organizational information emphasize competence over status and on-going adaptive learning over static or ‘best’ solutions” “KM is not necessarily for anything: it is just one of the ways things are done around here.”	Functionality; restoration of natural flows “Allow real expertise to naturally come to the fore” “Allow knowledge to develop organically, with only as much structure as needed, so I can concentrate on making my optimal contribution”

Lower Left – Interior “We”

	Collective purpose for doing KM	Collective view on the role of information/knowledge	Examples of stated needs
Blue	To further a shared mission around a central set of ideas To act as a repository of support for our organizational purpose	It is right or wrong as designated by authority	“Who was the project manager of the Bolt hydroelectric upgrade? I need to see the procedures he followed on the environmental permitting.”
Orange	To gain economies of scale and strategic superiority	It is to be mastered and used to exploit a world of possibility	“I want stats on the most qualified cardiovascular surgeon in the Midwest

	To keep up with technological advances and drop to the bottom line		and what they've published."
Green	To share in service of the enhancement of community To get reliable information to the widest number of people	It is to be shared equally for the betterment of all.	"We need to know the salary range for administrative assistants across the county so that my group can come up with the fairest raise for Jack."
Yellow	Depends on specific circumstances To do all of the above and allow me to play in the margins on some projects of personal intrigue	It can be interesting, distracting, powerful or useless; a resource to be shared, discarded, updated, consumed or connected or any number of other possibilities depending on what is needed right now.	"Is there a way to combine a search for images of termite colonies and recent papers on brief strategic psychotherapy as it applies to city planning? I'm working on a hunch..."

Upper Right – Exterior "I"

	More likely to accept the introduction of a new KM system if...	Most likely to use KM system for volunteering / finding / organising / disseminating ...	Examples
Blue	The appropriate "authority" provides the handbook of steps to take and the green light to begin using	<ul style="list-style-type: none"> ➤ Role-specific skills. ➤ Upward reporting through chain of command. ➤ "How-to-do-it" advice. ➤ Mission-related directives from senior management. 	<ul style="list-style-type: none"> ➤ Presenting and Public Speaking ➤ Gathering and developing Knowledge ➤ Managing and sharing information ➤ Using requisition forms e.g. Find the VP of HR
Orange	Middle management consulted as experts and trained as trainers	<ul style="list-style-type: none"> ➤ Personal skills and experience. ➤ Discipline-specific papers/thoughts ➤ Project team expertise. ➤ Professional networking ➤ Professional opportunities 	<p>All the above plus...</p> <ul style="list-style-type: none"> ➤ Networking ➤ Applying expertise e.g. Project manager seeking company's best water-quality engineer

Green	All are consulted (even if only representationally) and all are trained	<ul style="list-style-type: none"> ➤ Team-building ➤ Diversity enhancing ➤ Personal growth ➤ Environmental/social citizenship information ➤ Social information. ➤ Collaborative opportunities 	All the above plus... <ul style="list-style-type: none"> ➤ Trusting and empowering people e.g. Administrative assistant searches database for which offices are doing the most recycling
Yellow	Those most knowledgeable about KM systems make decisions about implementation; those who want to use it seek training.	Any or all of the above, depending on specific circumstances along with: <ul style="list-style-type: none"> - New thinking from a wide diversity of previously unexplored or unconnected disciplines from a set of core personal principles - Counter-intuitive searches for people and information 	All the above. <ul style="list-style-type: none"> e.g. IT intern inputs an article on termite colonies as examples of self-organizing systems

Lower Right – Exterior “We”

	Natural motivational flows through...	KM technology may most fruitfully be presented as...	KM system best managed by...
Blue	Established communications channels	“The way that (appropriate authority) has decided that we can best pursue our mission.”	A separate KM department headed by a VP. The department provides manuals and troubleshooting
Orange	KM experts in presentations to middle management	“The most efficient, effective, bottom-line oriented technology available”	A KM department headed by a supervisor. All middle managers have access to department resources.
Green	Regular all-staff meetings	“The most eco-friendly approach to building community.”	A group of people primarily responsible for KM, but who may also take on multiple other roles. Peer-to-peer relationships with all staff.
Yellow	E-mail, voice-mail, video and other technological resources; face-to-face meetings as necessary	“All of the above but is also an open system that has a great deal of potential waiting for you to engage in ways that no one else has thought of.”	May be outsourced or some shifting configuration of the above. Likely to be led by the person or people who are most knowledgeable about KM

Also, for the LR Quadrant...

	Techniques and processes used for km include...		
Blue	Facilitation, motivation, promotion of COPs Universally recognised vocabulary Newsletters	Document management systems operational across company	
Orange			New ideas for KM from all levels of company Customer, supplier and business partner information widely available throughout organisation Communications/ messages/stories/heroes

Green	Communication events Team briefings	Creative contributions by staff recognised, rewarded	
Yellow			Customer, supplier and business partner information widely available throughout organisation Description, communication, development of internal culture, reflecting philosophy, values, business principles

Where a technique or process is used under more than one colour, the motivations behind its use are likely to be quite different for each colour. The sorts of motivations that might exist are described in the Upper Left quadrant.

4.2 Uses of this model

We see a number of potential uses for this model:

- Designing the roll-out of knowledge management initiatives so that they “speak” to people in different ways, that is, they recognise their different drivers and motivations. The objective may remain the same, but the delivery may need to be presented in different ways.
- Helps diagnose the reasons behind lack of acceptance of initiatives from some people – and suggests ways they can be re-presented.
- Shows KM practitioners what they need to do if they are to create solutions that do not pull against themselves and therefore fail. Solutions need to be balanced by ensuring that there are activities in all four quadrants and that these are consistent with each other.
- Relates directly to real KM issues and objectives – simply sets out to support more effective planning and implementation.

Note that it is not necessary to communicate the model to others. It can simply be used as a “lens” for KM practitioners to be more successful and to avoid wasting time and effort.

5. Integral Insights into Organisations

The case studies presented here show how simple quadrant analysis (plus a little level analysis) can provide additional understanding into how organisations respond (or may respond) to KM cultural initiatives. The organisations that are presented are: Orange (mobile telephony), Unisys (Information services and technology), EZI (a global executive search firm) and Buckman Laboratories (chemical services and solutions). The first three case studies relate to the organisations of members of this Working Group. The Buckman Laboratories case study was prepared using published literature about their practices.

5.1 Unisys

Integral Theory has provided what may be key insights for Unisys in the planning of its KM program.

Unisys is a global provider of information services and solutions in targeted markets. During the past two years the company has been implementing a KM program focused on communities of practice, but also encompassing aspects of enabling IT implementation, information management and culture change for KM. At the start of 2003 roughly a dozen communities had been set up across the company, accounting for some of the main business interests of a large minority of the total staff.

The Unisys Knowledge Network Program (KNP – the Unisys KM program) has a project called “Creating a Knowledge-friendly Environment” (KFE) which aims to promote the enablers and remove the barriers to specific *knowledge-friendly* behaviours: Learn, Innovate, Share and Apply (LISA). Some of the enablers and barriers identified, such as ‘norms of behaviour’ are very ‘intangible’; others, such as certain policies and structures are more ‘tangible’.

KFE is proceeding along two parallel tracks: communications and liaison. There are three types of **communications** interventions:

1. Those designed to persuade people about certain ideas (such as the value of networking)
2. Those designed to provide specific skills (such as information about the virtual collaboration technologies available in the company and how to use them); and

3. those designed to inform people about KFE and to solicit input and feedback

The **liaison** interventions are to do with working with other corporate functions (such as HR, IT and Finance for example) to do one of two things:

1. To influence company procedures to make them more 'knowledge-friendly', for example by including KM materials in Induction Training; or
2. to discover and leverage existing company processes, for instance promoting the company's Global Recognition Program as a means by which communities can recognize and reward outstanding exemplars of knowledge-sharing.

A quick 'all quadrants' analysis of KFE already provides the basis for a better understanding of the 'tacit' rationale behind the project and for analyzing issues in its progress. The main aim of KFE is to promote a change in the upper right quadrant (individual behaviour, defined in terms of LISA). To achieve this it needs to address the left hand side: both the upper left where the beliefs and skills of the individual are supported and the lower left where the general 'norms' in the company are addressed. But the key in KFE is to address real change in the shared, external environment (lower right), which is where the liaison interventions are active. This simple analysis shows that KFE has a fundamentally strong framework as an example of 'integral change', but also provides a starting point for more detailed planning of how to progress in a more integral manner.

Another interesting hypothesis that has fallen out of our integral analysis so far is that Unisys Knowledge Networks ('KNs' - communities) may have taken the form that they have due to the prevailing psychology of the company as a whole. Knowledge networks were originally conceived as boundary-spanning 'communities of practice' where 'grass roots experts' would share and develop knowledge in a peer-to-peer environment, complementary to the company's hierarchical structure – in Spiral Dynamics terms, a very 'Green' ideal. There are examples where this happens. However, some of the most successful KNs are those that are closely aligned to major business units – those that sit parallel to the organizational hierarchy and are an extension of the pre-existing business system. Could this indicate a prevailing 'Blue' mentality that prizes and thrives in clear organizational structures? That is the hypothesis. However, in that case the fact that some of these KNs have been so successful underlines once again that it is not necessarily a bad thing to be 'more blue than green' – the issue is to have the best fit KM strategy for the organization. A 'colour analysis' of an organization might be a good indicator of the 'best fit' KM approach for that organization.

5.2 Egon Zehnder International

Integral theory (together with Spiral Dynamics) has provided what may prove valuable pointers in future KM interventions among support staff at Egon Zehnder International (EZI).

EZI specialises in assessing and recruiting business leaders with outstanding track records who will create competitive advantage and sustainable value. In our market, knowledge is without doubt our greatest asset.

KM at EZI has as its model the 'Knowledge Pyramid':

Tacit knowledge
which is supported by
Explicit / codified knowledge
which is supported by
People / Processes / Systems

This is in a way paralleled by the firm's structure:

Consultants
who are supported by
Business Support Staff
who are supported by
Business processes and systems

Processes for the development and sharing of tacit knowledge are well established and working among the consultants. They are in fact embedded in the firm's culture, arising from key values such as collaboration, and a 'one firm' concept with equal partnership, and are aided by the very low turnover in consultants (around 3%).

Unusually in view of many KM studies, what is needed at EZI is not the tracking of tacit knowledge but rather the development of the lower two levels in both pyramids. These previously have not been addressed in the same detail as the top level of each pyramid and as a result lack the same level of development: they need filling out and strengthening. This situation has resulted from growth in the firm over the past few years: during this period the KM focus has naturally been on the consultants – they earn the fees! – now it needs to move to the support staff and systems that have grown with them.

Here is the EZI Knowledge Pyramid in terms of the Four Quadrants:

	INTERNAL	EXTERNAL
INDIVIDUAL	Tacit knowledge People – Motivations	People – Training
COLLECTIVE	People – Culture	Processes and Systems

KM interventions undertaken so far for support staff have centred on training, processes and systems – in Integral terms, the UR and LR quadrants i.e. the external, right-hand side. This is in line with much non-Integral practice.

While this is progressing well, the Integral approach provides a reminder that the internal, left-hand side should not be neglected, and that if it is, the effectiveness of any interventions made will suffer. We wondered as a result whether there was a ‘tacit’ factor from the left-hand quadrants in our approach that was contributing to the progress we were making, what ‘levels’ we were working at, and what we could do to improve.

Two areas seem of particular relevance for investigation, both from the lower left quadrant:

- How much has the underlying culture helped with existing initiatives? – all our right-hand approaches seem to be working well – is culture our ‘tacit’ left-hand factor?
- What ‘colour’, in terms of Spiral Dynamics, best suits our work with support staff? Much of our interventions, aimed at support staff in general, could be termed ‘Blue’, in that they involve clear structures and information lines. However a new Research Training product has been launched this year where the focus is on making tacit research knowledge explicit and linking it clearly to the search process. In Spiral Dynamics (SD) terms, it is clearly aiming at the ‘Orange’, which is the level where we see our consultants working. Could there be other areas where we should be looking to move away from our previous ‘Blue’ approach?

5.3 Orange

Prior to 1999 Orange was composed of one large operation in the UK with start-ups in Belgium and Switzerland. There was no real drive to formalise knowledge management, although several studies had been carried out in the UK, mostly sponsored by the IT department. The culture of Orange was one that encouraged the development of personal networks and it was through these networks that things got done, rather than highly structured processes or cross-functional teams.

Following the acquisition of Orange by France Telecom in 2000 a large programme to identify financial synergies called ‘brightfuture’ was commenced. This was comprised of a number of ‘value creation teams’ (VCTs) looking at various aspects of the business which had 4 months to assess the financial benefits to be achieved from the merger of the various mobile operations (in 20 countries) and to recommend new group level organisations.

One VCT was set up to look at ‘knowledge sharing and innovation’. It carried out a full study of KM, including the approach of other organisations and produced recommendations for a new team and a set of initiatives which would stimulate various KM practices.

Of all the VCTs it was the only one which failed to make a convincing case to the executive team and whose recommendations were not implemented.

In hindsight the team concentrated on initiatives which were essentially in the lower right quadrant. They failed to make a strong enough link to the business culture and brand (LL). They failed to integrate their organisational recommendations with those emanating from the other VCTs. They did not place sufficient emphasis on behavioural development (UR) and did not link into the HR VCT. Finally they failed to understand the motivations and understanding (UL) of the executive team and ensure that their presentation took these into account.

An integral approach to their work may well have improved their chances of success.

Since then the formal KM team was set up in April 2002, following a direct appeal to the Executive Vice-President responsible for People & Communication. The approach to date has focussed on the lower right quadrant (communities of practice and intranet based collaborative solutions). However a 'bottom-up' or 'emergent' approach to communities has not had explicit support from senior management and different operating company and national cultures are creating various barriers to communication.

With recent changes in senior management there is now an opportunity to integrate KM with other initiatives examining internal culture and leadership values and behaviours.

It is proposed to create an integral model for change in Orange which encompasses an all quadrant view for people and communication and identifies areas where development is required, for KM and other initiatives to be successful.

5.4 Buckman Laboratories

Buckman Laboratories, winner of the Most Admired Knowledge Enterprise Award in 2000, uses values as intrinsic boundaries by creating a sense of identity that helps shape the decisions of its employees. The company used an organization wide consultation process to develop a Code of Ethics. Once in place, this helped people to trust each other and collaborate more effectively. Bob Buckman was the CEO who led this initiative. He has likened the organization to a ship and the Code of Ethics to the waterline – if you damage the ship below the line, you can sink it (Buckman 2001). That is why breaching the Code was made a dismissable offence. The full Code of Ethics is given below, mapped onto the four quadrants:

Buckman Laboratories: Our Code of Ethics

Because we are separated – by many miles, by diversity of cultures and languages – we at Buckman need a clear understanding of the basic principles by which we will operate our company. These are:

Upper Left (Internal individual)

- That the company is made up of individuals – each of whom has different capabilities and potentials – all of which are necessary to the success of the company.

Lower Left (Internal collective)

- That we must use the highest ethics to guide our business dealings to ensure that we are always proud to be a part of Buckman Laboratories.
- That we make all our decisions in the light of what is right for the good of the whole company rather than what is expedient in a given situation.

Upper Right (External individual)

- That we will discharge the responsibilities of corporate and individual citizenship to earn and maintain the respect of the community (repeat)
- That we acknowledge that individuality by treating each other with dignity and respect – striving to maintain continuous and positive communications among all of us.

Lower Right (External collective)

- That we will discharge the responsibilities of corporate and individual citizenship to earn and maintain the respect of the community (repeat)
- That we will recognise and reward the contributions and accomplishments of each individual.

- That we will continually plan for the future so that we can control our destiny instead of letting events overtake us.
- That we maintain our policy of providing work for all individuals, no matter what the prevailing business conditions may be.
- That our customers are the only reason for the existence of our company. To serve them properly, we must supply products and services which provide economic benefit over and above their cost.
- That to provide high quality products and services, we must make “Creativity for our Customers” a reality in everything we do.

As individuals and as a company we must endeavour to uphold these standards so that we may be respected as persons and as an organization.

(Note that some principles can be applied to more than one quadrant – and we have included one example of this.)

The Buckman Laboratories Code of Ethics has been part of the operation of the company for several years and has had a demonstrable impact on the culture and knowledge sharing practices. Recent detailed and extensive empirical research into the “*the values, beliefs and assumptions that influence the behaviours and the willingness to share knowledge*” (called the collaborative climate by the researchers) found that Buckman employees rated their climate higher than that of any other organization studied (Sveiby and Simons 2002).

We can hypothesise that this code of ethics has been so effective because it translates collective assumptions (LL) about “the right thing to do” into the mental models that individuals need to adopt (UL). It is interesting that there is such a clear translation of the collective to the individual here. It then explains very clearly what the concrete externalisation of these internal patterns of assumptions means in practice for individuals (UR) and collective action (LR).

6. Learning Points

Here are some of our learning points, presented in no particular order of importance :

It is useful to be prompted to look at KM from different internal/external and individual/collective perspectives;

Realising that people and groups may be at different stages of development (Spiral Dynamics) and the success of projects may depend on tailoring them to the relevant stage.

Integral theory is practical and therefore powerful. Since its integral nature incorporates and transcends other approaches it is also easily acceptable. Many in the group found it almost intuitive.

Its practicality and acceptability are however one of its weaknesses, since it (looking at a couple of the websites) has become another bandwagon for those who lean that way to climb on. It is not, however, just a set of rules to be learnt by heart, parroted, and then discarded in favour of another fad, but an approach that could be very useful in the long term.

We do not think it's been applied to KM before, possibly because KM has always been a vague concept to those outside it. However we believe that this work will help introduce KM to a wider audience.

Few theories take into account all four perspectives of Wilber's four quadrants.

Many of us prefer to “inhabit” 1 or 2 quadrants and may not find considering the other aspects of the grid at all comfortable.

Lack of organisational planning in any quadrant can seriously inhibit an organisation's ability to change

That there is so much more to know than I will ever know, but it'll be fun trying to know as much as I can.....

It's ok to have multiple interests- they do all meet at some level (albeit that the interesting thing sometimes is to know where)

7. Conclusions and Next Steps

This project has applied Integral Theory to culture change for knowledge management interventions in two ways.

The first way, summarised in Section 3, showed the beginnings of how different models of culture, culture change and cultural interventions could be integrated into an overall framework using a simple quadrant analysis. This work has clearly shown that a quadrant analysis *does* provide a form of integrating model.

In the second approach, summarised in Section 4, we tested how some of the dimensions of KM and culture (the columns in the grids – what might become true “lines” in a complete Integral Analysis) might be allocated to quadrants, and then further analysed by the Spiral Dynamics levels (Blue to Yellow). Although it has not been formally applied in practice, we believe that the resulting model, or probably some derivative of it, will be extremely valuable in both analysing and suggesting suitable interventions for knowledge management culture change – as listed in the proposed uses of the model.

In this project we spent considerable effort grappling with Integral Theory: not so much understanding the concepts, which are not so difficult on the surface, but in how to apply them – an altogether much harder problem. We now feel that we have reached the first base – with suitable guidance and a growing understanding, we have evolved these two approaches and taken them far enough to demonstrate their potential.

The way forward for continuing this work is now much clearer. True to an integral project, it involves bringing together the two strands of development.

The quadrant analysis of cultural models needs to be taken further by extending both its scope and depth. This will provide a “surface” (quadrant only) integration of multiple organizational cultural approaches and their application to knowledge management and will provide a useful tool in its own right.

A natural output of this work will be a collection of “aspects of culture” analysed by quadrants. Each of these “aspects” could then, in principle, be considered as a potential “line” for further analysis into levels, as we did in the grids. In other words, the quadrant analysis of cultural models would provide the raw material for a full quadrant-line-level analysis of this domain.

A further development of any grid-type model would be to link the “lines” together by the levels. i.e. to show more explicitly how the issues of a specific level within a line within one quadrant relate to the issues for the same level on another line (maybe in a different quadrant). In other words, to substantiate the existence of the “circles” as proposed in the explanation of Integral Theory.

Finally, work needs to be undertaken on providing guidance on how to model might be used to analyse and propose cultural change interventions, for knowledge management, including how to determine the applicable Spiral Dynamic levels within various parts of an organisation.

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Appendix: The project team's journey into the world of Integral Theory

In the beginning

This project started from a chance remark at a meeting to discuss a completely different project. One of the participants mentioned he was planning to look through past Henley KM Forum projects to try and find some integrating theme to them. This triggered another participant to give an impromptu 5-minute description of Integral Theory as a potential framework – and the germ of a new project formed.

A working group of interested KM practitioners was therefore formed. Group members' interests ranged from dissatisfaction with KM projects that focus only on certain aspects, e.g. IT, which can fail to deliver knowledge management change in practice, to producing a diagnostic tool which would enable an organisation to assess the state of its knowledge management and the interventions it needs to make to improve its operation. All agreed that if the theory could be successfully applied to knowledge management, it could have multiple uses and help organisations to create and implement more encompassing knowledge management strategies. It would however be a venture into the unknown as it appears that integral theory has never been applied to knowledge management before.

Getting started: the challenges

The first challenge was getting to grips with understanding integral theory itself. Whilst the four quadrant model is relatively simple to understand, there are many aspects to the theory – developmental lines and levels, spiral dynamics, and the concept of “holons” (this latter idea pervades all aspects of the theory but had not been made explicit in this paper). Also there is little literature on how to apply the raw theory to a new area. As a starting point the group decided to map onto the four quadrant model different aspects of knowledge management based on members' collective experience. This was a useful exercise to get members' heads around the four quadrant model, but as the group later discovered this in itself is not the correct way to use the theory to assess and improve knowledge management.

The group also tried mapping onto the model the findings from the Henley KM Forum KOPE survey, which surveyed various organisations on their knowledge management strategy and organisational, cultural, process and technology enablers. The process of mapping was sometimes difficult. Often it was hard to distinguish the elements of a knowledge management practice and the quadrants into which they fall, e.g. distinguishing between the individual internal (upper left quadrant) and collective internal (lower left quadrant) aspects of a practice. The group did find however that the process of mapping itself is beneficial to developing a cognitive understanding of knowledge management from differing perspectives.

The mapping of the KOPE survey findings, which solicited information on knowledge management practices over two years' ago, showed a heavy bias amongst the organisations surveyed to systems initiatives falling within the lower right quadrant. This may indicate a bias at the time towards knowledge management based only on external systems, which according to integral theory would fail without corresponding action in the other quadrants consistent with the desired approach. It would be interesting now to map similar current data to see whether the focus has changed.

A guide to help along the way

The group is most grateful for the assistance provided by John Forman and his colleagues at Integral Development Associates, a US-based management consultancy specialising in the application of integral theory to business issues. Whilst the group was not in a position to undergo comprehensive integral theory training, John's firm helped by pointing out where efforts would be most fruitful, in particular concentrating on a particular aspect of knowledge management and mapping this into the quadrants by reference to some developmental lines and levels from Spiral Dynamics theory, rather than the earlier approach of mapping knowledge management aspects as a whole. The group developed this approach by first considering a four quadrant model for communities of practice and focusing on how four of the spiral dynamics' levels – blue, orange, green and yellow – operate in this area.

Going round in circles but finding the way

One of the most difficult aspects of the approach was deciding on the developmental lines (or headings) to cover within each quadrant, and attempts at populating the grid were revisited a number of times. A breakthrough came when the group started thinking in terms of what “communities of practice” means in each quadrant, i.e. from individual and collective internal perspectives and also the external behaviours and artefacts displayed in communities of practice. This

suggested the lines to incorporate into the model. This, combined with Integral Development Associates' guidance on the general mindsets and behaviours of the different colour levels, eased the application of the theory to this aspect of knowledge management.

From that experiment the group progressed to develop the four quadrant model contained in this paper, again often with the same circuitous progress in deciding upon quadrant headings and identifying the colour levels within them. Particular difficulty was encountered with the cultural aspects of the grid, such as whether cultural aspects are confined to the lower left quadrant (collective interior) or also extend to the lower right quadrant (artefacts of culture), or indeed to the whole of the grid. The analysis of different elements of culture shows that aspects are found in all four quadrants.

It was also difficult to draw a line between the cultural aspects of the model the group created and its application to knowledge management as a whole. Whilst this paper outlines the cultural aspects of the model produced, the grid can also be approached from other perspectives, e.g. the individual, depending on how one wants to use it.

An Unfinished Journey

The journey has not been easy, not least because of the lack of signposts on how to apply the theory, but it has been rewarding. Continuing it is likely to be an ongoing process of discovery in viewing the world of knowledge management from many different horizons.