The I-stuff effect

One way of tackling the silos that have emerged around the IP and intangibles nexus in many companies is to think about I-stuff. It is a term that encapsulates a completely different approach to the issue

By **Patrick H Sullivan**, **Suzanne Harrison** and **Sharon Oriel**

It is now axiomatic that intangibles comprise a significant portion of corporate value. For this reason, firms are seeking ways to identify that value as well and to extract the value in the form of revenue and profits. Over recent years, a number of companies have learned of ways to extract value from their IP. But IP is only the tip of the corporate intangibles iceberg. While manufacturing companies have been able to extract value from their IP, they have generally not moved beyond IP to knowledge, ideas, relationships, brands or values. In contrast, services firms, which have traditionally been light on IP, have generated value from these other intangibles for years. Is it possible for IP-focused firms to utilise the value extraction lessons learned from IP and apply them to other intangibles? We believe the answer is a resounding "Yes!" We also believe that service-based firms can enhance revenues by utilising IP in addition to their traditional use of knowledge as a revenue source.

The authors have been the informal convenors of the ICM Gathering since 1995. The ICM Gathering is a group of managers of intangibles for large international corporations, who share information about how to obtain value from their intangibles. Initially, the group focused on the extraction of value from intellectual property as well as on managing IP as a set of business assets rather than only as a set of legal documents. Over the past decade, Gathering discussions have gradually shifted from a singular focus on intellectual property to a broader view that includes a business's non-IP intangibles as well.

About three years ago, the Gathering companies began to ask themselves: "Other than IP, what intangibles are currently providing value to our corporation?" This question prompted the group to begin to look at their companies non-IP intangibles, and to decide whether they were already extracting value from them and, if so, how. The authors have distilled much of what the Gathering companies learned into the book *Einstein in the Boardroom*, to be published in the spring of 2006.

A term is born

As the Gathering entered its tenth year of meetings, it began to look back at the body of work and knowledge that had emerged from its discussions about intangibles and intellectual capital management. The Gathering began to discuss some of the lessons it has learned. One of the surprises was the realisation that, by virtue of their names, intellectual capital, intellectual assets and intellectual property have connotations associated with the financial markets. This implicit linkage to the financial and accounting frameworks carries unexpected baggage in the form of implied definitions or constraints. The Gathering began to ask whether we could redefine the language to eliminate any unintended baggage and find a way to make intangibles inclusive rather than interpretive based on something emerging from one or more silos. This ultimately led us to simplify our view of intangibles. For purposes of intangibles management, intangibles comprise two components: IP and everything else.

But what should the everything else be called? Because the set of intangibles that is non-IP includes such a wide range of items (knowledge, ideas, wisdom, relationships, customer lists, brands and values, to name a few), it became clear that simple aggregation and naming was inadequate. After two years of looking for a name, the Gathering settled on calling these intangibles the firm's I-stuff. For those who are not involved in the financial and accounting world, intangibles may be satisfactory. However, because the accounting profession seeks to define intangibles narrowly, the Gathering felt the need for a neutral term. While not entirely satisfied with I-stuff, no better name has arisen, so I-stuff it remains.

In order to understand the composition of I-stuff, one must first understand what is included under the heading intangibles. The intellectual capital community has defined the elements comprising both the tacit and codified components of intangibles (the listing in Exhibit 1 on page 24 is a representative categorisation of intangibles).

In the simplest terms, intangibles represent the knowledge, know-how and relationships that may be used to create value for their owner or owning organisation. Intangibles may be tacit or codified. When they are tacit, they reside within the mind(s) of company employee(s) and other stakeholders. When they are codified, they have been committed to some form of media – typed into a computer, drawn on a blueprint, written on a piece of paper or painted on a canvas. The organisation's intellectual property is a subset of its codified knowledge. In one attempt to make the definition of intangibles more understandable, the US Federal Accounting Standards Board has created a list of what it considers to be a firm's intangibles (see Exhibit 2).

Different sources produce different lists of what may be included under the heading intangibles. No one list is definitive and all are illustrative. We believe this makes the point that the elements constituting the set called intangibles are not entirely known; there is no one comprehensive list of intangibles. Nevertheless, there is substantial agreement that tacit and codified knowledge and relationships in their many forms are elements of the intangibles set. We define I-stuff as: "All of the organisation's intangibles that are not codified as intellectual property."

The hegemony of silos

The literature and practice around the management of intangibles has grown out of several fields of endeavour, such as: the knowledge management movement, the IP/legal profession, the IP-as-business-assets perspective, the human resources perspective and the innovation model. Measurement and reporting requirements of the variety of practices and perspectives have led to management silos, each with its own purpose and agenda, and each with its own list of intangibles to be managed. As a result, knowledge management people rarely interact with value extraction people, and innovation people do not interact with financial and reporting people. The resulting cacophony of language and terminology produces confusing and often dysfunctional conversations. No one can agree which approach was the most correct or which set of objectives should be adopted by an organisation. Each of these intangible paradigms is locked into its own silo of issues and rarely is there meaningful conversation between and among these groups. As a result, the silo effect has become an impediment to the development of broad-based concepts and tools for the management and extraction of value from all forms of intangibles.

The management of I-stuff

Traditionally, many companies have created value for their customers through a value chain, a term utilised by Michael Porter of Harvard University. Such companies seek to add value to goods they process and sell.

A value chain company seeks innovative ways to optimise cost, time and the quality of its processes; finds customers for the products; and makes the chain more responsive to changes in supply or demand.

But in the past decade, two new forms of value-creating business models relying on company I-stuff for their value have become prevalent and economically important: the value shop and the value network.

The value shop wants to capture and exploit knowledge about problems and their solutions. The value network wants to identify new clusters of customers or customer use patterns that enable the business to multiply exchanges between customers; and also needs to know who to bring into the network, who to kick out, and to whom it should sell excess capacity.

In recent years, value shop and value network companies have become more prevalent and economically important. Among them, Microsoft, Cisco, PeopleSoft, eBay, Priceline, Amgen, Sun Microsystems, Amazon and Yahoo have some of the largest market capitalisations in the US economy. As the above suggests, there is significant value available to corporations that manage their I-stuff.

Some corporations are already deeply

Exhibit 1:
Elements of intellectual capital from the perspective of the intangibles community

Knowledge
Tacit
Codified

Relationships
Individuals
Groups

Processes
Including combinations of tacit and codified knowledge

People
Knowledge-laden people
Relationship-laden people
- Customers
- Individuals
- Defined entities

(including combinations of tacit and codified knowledge)

Exhibit 2: **Intangibles from the perspective of the US Federal Accounting Standards Board**

Market-related
Trademarks, trade names
Service marks
Trade dress
Newspaper mastheads
Internet domain names

Customer-related
Customer lists
Customer contracts
Customer relationships
Customer agreements

Artistic-related
Ballets
Books, plays, articles, other literary works
Musical works, opera
Pictures, photographs
Video & audiovisual material

Contract-based
Licensing agreements
Advertising or service contracts
Lease agreements
Construction permits
Operating and broadcast rights
Employment contracts

Technology-based
Patented technology
Computer software
Unpatented technology
Databases
Trade secrets, secret formulae

embedded in a value chain paradigm. These organisations want to obtain new value either by identifying new ways of using their I-stuff in their current business or by creating new and different value streams from their I-stuff. Other companies are well established in value shop or value network business models and want to learn more about managing their I-stuff to increase its value to their firm.

The Einstein Value Strip

Edison in the Boardroom used a tiered pyramid shape (called the Value Hierarchy) as a graphic to convey the increasing sophistication of the levels of intellectual property management. This graphic helped practitioners visualise as well as describe the relationships between the major groupings of IP management activity.

Developing such a clear picture of I-stuff management was more difficult, however, since a company may begin managing its I-stuff in any order, from any perspective (knowledge management, legal, etc). The I-stuff graphic would need to show the complexities associated with knowledge – in particular, that it has no beginning or end. A company may move from one area of I-stuff management activity to another in any order; there is no defined starting or ending point for the practice of I-stuff management. A graphic would need to connote activity with no beginning or end and to show the possibility for non-serial movement from any one area to any other. A Möbius strip was the answer; in I-stuff management terms, we call it the Einstein Value Strip. It has no starting or ending point, symbolising the on-going nature of I-stuff management. Further, we have divided it into four separate and equally sized stripes, each signifying one of the four groupings of best practice activity; each stripe touches all of the other three, symbolising that movement from one stripe to another does not indicate increasing sophistication of an organisation's I-stuff management.

I-stuff best practices

The management of I-stuff, particularly for value chain companies, is a nascent field of endeavour, yet many companies are already proficient in one or more aspects of this new focus for management. Based on our interviews with companies we have identified four general areas within which best practices have emerged.

Building the I-stuff portfolio

Companies entering the value strip at the building stripe tend to have a knowledge background or focus. Companies on the building stripe are looking for ways to create or ensure a knowledge-friendly culture, which means one that allows and encourages knowledge sharing and collaboration internally. Companies here are also focused on understanding and identifying the fundamental knowledge that drives their competitive advantage; we call this their sustainable knowledge. Identifying sustainable knowledge allows companies to codify it for commercialisation and also to communicate its importance to employees so that it is not leaked or shared outside the company inappropriately.

Building a portfolio of I-stuff implies some level or degree of internal sharing. Companies need to create networks of people and documents so that they can talk to each other and to other knowledge experts in the firm. In other words, companies need to know what they know.

Cargill is a leading producer of agricultural and food products worldwide with over US$70 billion in sales. In 1997, it began the process of transitioning itself from a producer of commodity products into an international provider of food, agricultural and financial products and services. The company wanted to move beyond selling its products by the pound to selling its knowledge as well. In approaching this strategic change, the firm came to realise that its I-stuff was the key to a successful transition.

According to David VandenEinde, Senior Intellectual Asset Manager, and Harry Gwinnell, Vice President, Chief IP Counsel, "Cargill began a three-step I-stuff improvement process. The first step was to change its culture into one that was more accepting and supportive of I-stuff. The company began an education, training and development project to help people understand the difference between IP and I-stuff. It also created its own language and terms in order to facilitate more open and understandable communication."

The second step, they continue, was for business units to inventory their IP and I-stuff. "Once each inventory list was completed, the company worked with the unit to prioritise each form of intangible according to its importance to the business. The idea was for units to move from the significant many to the critical few."

The third step, say Gwinnell and VandenEinde, involved putting an infrastructure in place to support the business units in their efforts to understand and to prioritise their I-stuff as well as to support its use in their business. "As a result of the on-going efforts of Cargill's work-in-progress, business units have a clearer understanding of their IP and I-stuff and how each adds value to their bottom line," they conclude.

Leveraging the I-stuff portfolio

Companies on the leveraging stripe are often experienced in the commercialisation of intellectual property, either their own or that of others. They are eager to begin extracting value from their I-stuff, particularly where it promises to add new revenue streams to the firm's existing or more traditional ones. Companies on this stripe seek to convert their I-stuff into revenues and profits in ways that provide them with greater returns on their efforts than those provided by their traditional business activity. As companies begin to leverage I-stuff for value, it often triggers the question: "What business are we really in?" In answering this question, they may decide to offer services in addition to physical products, or decide to use a different business model for the commercialisation of their I-stuff.

As an example of how a company can convert embedded I-stuff into a revenue stream, The DuPont Company, originally a manufacturer of gunpowder, was a leader in implementing safety programmes and safety education firm-wide. Several years ago, DuPont's CEO asked whether it would be possible to develop a revenue-producing activity using the company's storehouse of safety knowledge. The result is what is now called DuPont Safety Resources, which provides safety consulting services and training courses and sells a range of safety products to other companies.

Integrating I-stuff management across the organisation

Companies operating on the integrating stripe focus on two aspects of I-stuff management: using most of their I-stuff strategically to benefit the firm; and managing some of their I-stuff across as well as outside the firm. Integrating companies have an understanding of organisational dynamics and organisational capital. They tend to be companies moving towards partnering with their customers and/or suppliers.

Partnering with a customer may require a company to take on the customer's goals as its own. This can raise a host of issues: how do you manage people who do not report to you or your organisation and yet are vital to your project success? How do you measure internal progress and success? And, finally, how do companies create I-stuff strategies, and how do these differ from IP strategies?

Firms dealing with these issues are focused firmly on bottom-line performance, but they recognise that I-stuff also has strategic implications for the firm that they need to take advantage of.

Procter & Gamble is a company that often operates across organisational boundaries. Says Jeff Weedman, Vice President, External Business Development at P&G: "The company found itself in a non-traditional joint venture based on the technology associated with Glad Press'n Seal®. Having developed the technology for the product, P&G realised that the cost to establish a brand equity in this huge market with several well-entrenched competitors, all with very good trademarks and products, would be prohibitive. In seeking out a partner for a joint venture, The Clorox Company, maker of Glad® products, showed the most interest."

Clorox had an excellent established brand and go-to-market capabilities, Weedman explains. "P&G brought its plastic wrap technologies, as well as the use of a range of current and future patents, trademarks and proprietary technologies with applications in the plastic bag, wrap and container category. P&G also made available approximately 20 full-time employees dedicated to the Glad® business. Following on the heels of Glad Press 'n Seal® wrap, the joint venture launched Glad ForceFlex® rubbish bags one year later."

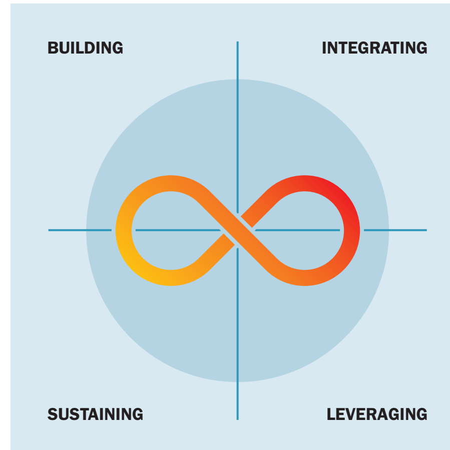
Today, says Weedman, the Glad® brand has increased its market share in both the trash bag and food wrap categories, and P&G has increased its share of ownership from 10% to 20%, because of the profitability of the venture. "This is a terrific example of balancing each company's capabilities and strengths. By combining forces we were able to move the product to market faster and begin seeing a return on our joint venture sooner," Weedman states.

Fostering organisational sustainability through I-stuff

Maturing companies think about how to achieve sustainability. But what is sustainability as it relates to intangibles? Sustainability is concerned with how the firm's current decisions affect the future. In addition to the business aspects of current decision-making, firms seeking sustainability are concerned with the company's reputation, trustworthiness, image, relevance and viability.

Companies on the sustaining stripe have a long-term perspective on the firm, its activities, and its place in industry and

The Einstein Value Strip



society. Firms on this stripe have shifted their view of value away from short-term goals and objectives and towards the fundamental value they create for their stakeholders. Shareholders are no longer the ultimate group for which the firm creates value. They remain an important stakeholder in the firm, but not the only one. Equally important are employees, customers and the communities in which firms operate.

Firms on this stripe are interested in organisation-wide renewal (sustainability) through I-stuff, or simply knowledge re-use. They may ask themselves: how can we use existing knowledge in new ways to create additional value streams? What do we need to report externally to help shareholders and stakeholders assess our company and determine if we are meeting or exceeding their expectation? How do we align the values of the organisation with employees' individual values to create more effective groups, relationships and projects? Eli Lilly and Company was able to re-use knowledge to increase sustainability for itself, a patient population in crisis and a country.

Eli Lilly, a pharmaceutical company, is an example of a corporation that has a complex network of stakeholders which includes individuals or groups that receive value from their relationship with the firm (and from whom Lilly receives value) although not financially or through ownership of stock. These stakeholders span the range from local communities in which Lilly operations are located to international stakeholders, such as countries, governments and non-governmental organisations that are a part of a national infrastructure.

Lilly is aware that it exists in part to make money and to provide its investors with a return, but also must be a good corporate citizen in order to remain in business. On occasion this has meant sacrificing a bit of shareholder value in the short term in order to be socially responsible in the long term. In 2001, the company faced such a dilemma and found a way to use its I-stuff creatively to solve a difficult sustainability problem.

At that time, explains Rob Smith, Eli Lilly and Company Director of Public Relations and Corporate Branding, the company's business strategy focused on discovering and developing new medicines in four therapeutic areas: neuroscience, endocrinology, oncology, and cardiovascular diseases. At the same time, a new form of tuberculosis, multi-drug-resistant tuberculosis (MDR-TB) was emerging as a global health crisis. Each year over 300,000 new cases of MDR-TB are diagnosed in more than 100 countries.

Lilly had been manufacturing two drugs, older antibiotics that are part of the treatment protocol for MDR-TB. They are complex drugs to manufacture and Lilly has been the single supplier of them around the world. Patented in the 1950s and 1960s, these drugs represented treatments that were no longer in alignment with the Lilly business strategy. "We decided to take our manufacturing technology – our know-how and other I-stuff – and actually transfer it to manufacturers in geographical locations where the disease is most pronounced," Smith explains. "To accomplish this, we created the Lilly MDR-TB Partnership. Its primary goal is to train healthcare personnel and to increase the supply of the critical drugs needed to treat MDR-TB and to meet the treatment goal of the World Health Organisation. A secondary goal is to improve the production capacity for these two products closer to where the disease is more prevalent: Latin America, Africa, Asia, and some segments of the prison population in Russia."

So what does Lilly get out of this? "We get to re-use knowledge that we created 40 to 50 years ago in a new way and to tackle a global health issue more effectively," says Smith. "Internally, it allows us to focus on our business strategy by focusing our efforts on the four main therapeutic areas defined in our business strategy. We could not have come to such a positive resolution of our dilemma if we had not been able to manage and transfer the company's outdated but still effective I-stuff associated with these MDR-TB drugs."

Sustainable competitive advantage

The business world is beginning to recognise that corporate growth is sustained when both intellectual property and I-stuff are managed to support the business strategy. The ability to develop business models specifically focused on I-stuff, or models that combine I-stuff with IP in new and different ways, allows firms to develop even more pathways for sustainable competitive advantage.

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The IP Value Hierarchy