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# Agenda

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## Research – Industry context: Organizations' objectives

Every organization exists to produce a product(s) and/or service(s).

Why?

It's all about business performance.

**Assumption #1** – Business performance improvement is desirable

## Research – Industry context: Organizations' objectives

Means of production (Adam Smith):

- capital
- land
- labour
- enterprise

The assets deployed are:

- financial (money)
- physical (plant and equipment)
- human (people)
- intellectual (data, documents, content and knowledge).

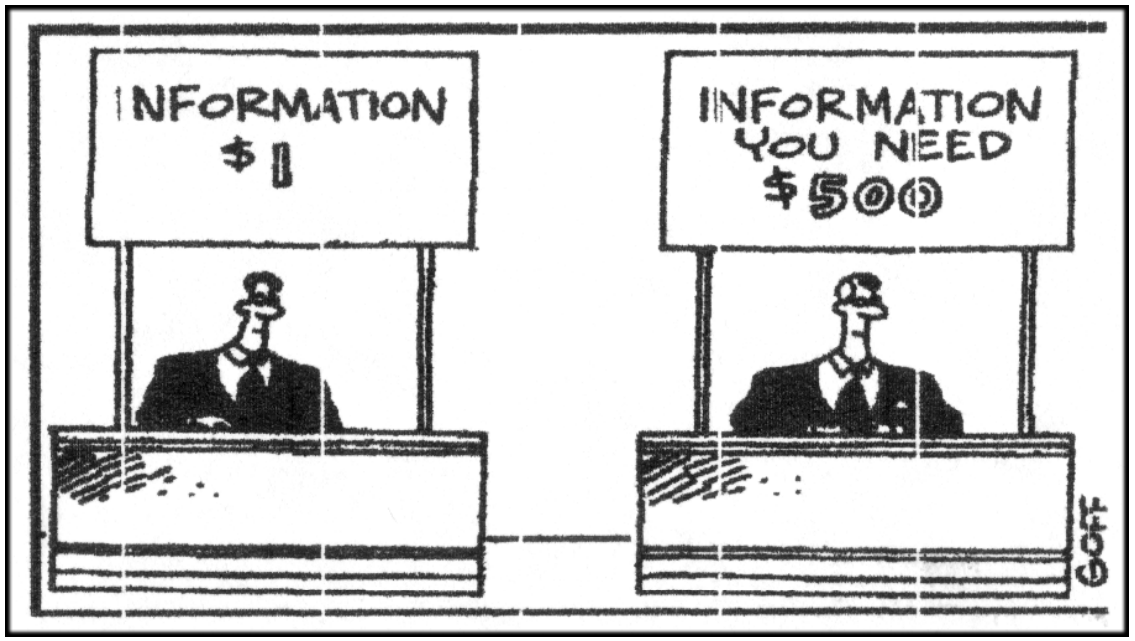
**Assumption # 2** – Knowledge, information & data are the enablers of enterprise and therefore comprise an asset critical to the operation of every organization.

# Research – Industry context: Organizations' objectives


Effective deployment of assets, particularly Intellectual Assets, should:

- internally / for staff
  - drive faster processes
  - facilitate better decisions
- externally / to clients
  - improve services
  - provide new services
  - reduce price
  - enable faster delivery
- for the organization
  - improve service delivery
  - reduce costs
  - increase productivity
  - mitigate risk
  - improve compliance

# Research – Industry context: The common problem



## Research – Industry context: Examples of potential benefits

- **E&P company:** Incoming email October 2006 = 4,041,085. In December 2006 = 5,338,988.
- **Mining company:** Business and mining professionals and managers spend 15 hours per month in avoidable filing, distributing and searching for lost documents costing $24,296,250 per year.
- **E&P company:** Reducing hard copy storage by 52% saved space worth $1,827,000 per year now used for break-out, meeting and collaboration spaces and more effective work spaces and storage.
- **Consulting engineering firm:** Saving 5 minutes per person per day achieves a $2.5 million per year productivity improvement.
- **E&P company:** Its inability to provide drawings, documents, wiring diagrams, plant dossiers etc. incurs a surcharge of between 10% and 25% in offshore construction contracts *(Experience Matters 2006).*
- **Government agency:** reduced hard copy storage costs by 73% by rationalising providers *(Experience Matters 2009).*

# Research – Industry context: Consolidated potential benefits

Industry research suggests that, on average, the potential benefits from improving information management practices are up to $20,000 per employee per year. Reconciliation with global research indicates that this figure is slightly conservative. Anecdotal evidence suggests that it is highly conservative.

**Working Level Benefits**

- Reduced time looking for documents
- Less time spent in unproductive activities
- Reduced error rates
- Less rework
- Reduced accidental destruction
- Improved version control
- Improved office space utilisation
- Less time required to induct new employees

**Enterprise Level Benefits**

- Increased productivity and improved service delivery
- Reduced cost of operation
- Risk mitigation / reduction
- Increased ability to initiate or defend litigation
- Improved compliance
- More agile organisation operation

## Research – Industry context: A lack of governance and management

**Financial Assets**

- Chief Financial Officer
- Chart of Accounts
- Balance Sheet
- Income Statement

**Physical Assets**

- Director Corporate Services
- Assets Register
- Depreciation Schedule
- Maintenance Schedule

**Human Assets**

- Director HR
- Organization Chart
- Roles and Responsibilities
- Key Performance Indicators

**Intellectual Assets**

Includes all data, documents, content and knowledge, all media e.g. paper, digital, film, headspace, all formats e.g. spreadsheets, email, drawings.

- IT Manager?
- BCS and IA Map?
- ?

# Why?

## Research project

EXPERIENCEMATTERS
BUSINESS ADVISERS IN INFORMATION

UniSA

RESPICE PROSPICE

FIAT LUX

# Intellectual Assets

# A Governance and Management Perspective

**Collaborative research**

## Research project – Background

*“Let's face it, the subject of information will never get your colleagues' pulses racing. Yet there is no escaping that it is the life-blood of all organisations today. It is the basis upon which day-to-day operations are undertaken and all critical decisions are made”*

(ARK group, 2011, Report on Valuing, Protecting and Leveraging Core Business Information)

## Research project – Background

- Comprehensive research has been done on the management of critical business assets such as data, information and knowledge

- Yet there seem to be many barriers to the effective deployment of these assets and a lack of senior management involvement

- Our research – governance and barriers to management focus to determine the perspective of senior leaders on the identification, costing, valuing and realization of benefits from intellectual assets in organizations

## Research project – Research team

**Dr Nina Evans**
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University of South Australia

**James Price**
Managing Director
Experience Matters
Adelaide, South Australia

**Prof. Gordon Hunter**
Information Systems
Faculty of Management
The University of Lethbridge, Canada

**Prof. Louis Fourie**
Head of IS department
University of the Western Cape
Cape Town, South Africa

## Research project – The value of University / Industry collaboration

- Researchers at universities value a sound theoretical base and robust methodologies when conducting research. However, they sometimes feel detached from reality and real world organizations

- Practitioners and consultants have practical experience and industry contacts. However, they are more inclined toward shorter term thinking and acceptance of ideas at face value, without the necessary proof and research-based evidence

- Due to the complementary strengths and despite the differences in culture and approaches to problem solving, the relationship between practitioners and academic researchers is very beneficial in collaborative research projects

## Research project – Project Audience

- Academia - use findings for research and innovation
- Private and public sector organizations - use findings for business improvement
- Students - findings will be used for improving curricula and developing knowledge

## Research literature - Terminology

## Research literature – Examples of Intangible Assets

- data
- information
- knowledge
- documents
- content on web sites
- brands
- corporate reputation
- organizational capabilities
- relationships with customers and suppliers
- customer satisfaction
- customer loyalty
- relationship with investors
- business reputation
- trademarks
- distribution agreements
- patents
- software
- research and development
- strategy
- process quality
- employee innovativeness
- supplier know-how
- corporate culture
- product reputation
- corporate reputation
- employee know-how
- employee satisfaction
- employee loyalty
- training of employees
- databases
- intellectual property
- management systems
- technological processes

## Research project – Definitions

- Focus is on data, documents, published content and knowledge, irrespective of medium (hard/soft copy, microfiche and head-space) or format (e.g. Word document, spreadsheet, email, drawing and HTML) . Clearly distinct from tangible assets such as Financial, Physical or Human Assets

- **Governance** refers to what decisions must be made to ensure effective management and who makes the decisions. **Management** involves making and implementing the decisions.

## Research project - Stages and geographies

The project is being conducted in four stages in Australia, South Africa and the US/Canada

1. **The Problem.** In this stage qualitative research was conducted to determine whether senior management recognizes the existence, cost and intrinsic business value of data, information and knowledge to their organizations and whether they are managed as valuable assets

2. **The Cause.** This stage identifies the barriers to the effective deployment of these assets and the reasons for a disconnect between the acknowledgement of the existence and value of intellectual assets

3. **The Benefits.** This stage will quantify the benefits of efficiently and effectively managing data, information and knowledge through the use of case studies

4. **The Solution.** This stage will attempt to design a roadmap/framework for overcoming the barriers to effective deployment through effective management and governance interventions.

## Research project methodology and process – Stages 1 and 2: Qualitative research

- Narrative Inquiry
- Document research participants' recollections and interpretations of personal experiences
- Interview guide used to facilitate gathering the personal qualitative stories
    - focuses the interview on the research questions and the participant's experience
    - supports a consistent approach to the various interviews
- Prompts to delve into the topic in more detail and explore a comment in more detail.
- Interview transcripts - identify emerging categories or themes relating to the deployment of these assets

## Research project methodology and process – Stage 1 participants

Representatives of senior level management at nine Australian organizations

| Title | Industry |
|---|---|
| Board member | Various, mostly banking |
| CEO | Manufacturing (Process) |
| CEO | Services (HR) |
| Managing Partner | Services (Legal) |
| CFO | Utilities (Rail) |
| CFO | Services (Automotive) |
| CFO | Banking, Finance & Insurance |
| CKO | Utilities (Pipelines) |
| CKO | State Government |
| Data Management | Banking, Finance & Insurance |

## Research project  methodology and process – Stage 1 Interview Protocol

- Which of these assets do you have in your organisation?
- How does your organisation currently manage these assets?
    - Who is responsible (job title and duties)?
    - What investments have been made in these assets?
- Are these assets considered a scarce resource / building sustainable value and how are decisions made to invest in these assets?
- How do you value and determine the cost of managing these assets?
- Does your organisation recognise the benefits of managing these assets?
- Lessons learnt?
- Current issues and challenges?
- The future?

## Research project methodology and process – Stage 2 participants

Representatives of senior level management at 11 Australian and South African organizations

| Title | Industry |
|---|---|
| Board member | Various, mostly banking |
| CEO | Services (HR) |
| CEO | Services (IM) |
| Managing Partner | Services (Legal) |
| CFO | Utilities (Rail) |
| CFO | Banking, Finance & Insurance |
| CIO | Banking, Finance & Insurance |
| CIO | Banking, Finance & Insurance |
| CIO | Government (Local) |
| CKO | Utilities (Pipelines) |
| CKO | Government (State) |

## Research project  methodology and process – Stage 2 Interview Protocol

If the Intellectual assets are not managed

- Why are these assets not managed?
- Would there be a benefit to your organization to manage these assets?
- Does your Board understand Intellectual Assets?
- Could your accounting practices recognize Intellectual Assets?
- Is software seen as a way to manage Intellectual Assets?

## Findings – All organisations have Knowledge, Information & Data Assets

- Reputation, goodwill, intellectual property , *"what's in the heads of my professional staff",* a database of potential job candidates, client management system, financial system (P6)

- Information about the current tangible assets (e.g. how a product was built), employees' knowledge (e.g. maintenance procedures), HR training records, documents, content, drawings, images, records, knowledge (P1)

- Internal processes ,software systems, - insurance system and a membership system (P8)

- "Knowhow" (the database), matters (client files), precedents and manuals (P2)

- Skills and knowledge and the capabilities of the employees (P4)

## Findings – These Assets are valuable to their organisations

Managers realize that K,I&D assets are crucial for growth and competitiveness and should be deployed and managed as such

*"All we have is knowledge in this business, we don't actually have anything else; really, that's all our business is, knowledge"*

*"As we got bigger, I realized that we couldn't do that anymore so now the business would grind to a halt without these assets" (P6)*

*"The better we are at managing these forms of assets, the more sustainable value we create. It's what I regard as the good management of these assets that optimise the business." (P2)*

## Findings – K,I&D Assets are not managed well

*"We're at a place on that spectrum, it's not the case here that there's no management of intellectual property of information. In fact, there's a substantial effort that goes into both capturing and organising information. I think that we're probably a long way from optimising the capture and organisation of information. So I think there's lots of head room and we can do it a lot, lot better" (P2)*

*"I understand that there is great value in the intellectual assets and the sharing of information within the organisation. But like all organisations, we certainly struggle with it, and we don't bring it to the surface and give it the level of resources that it would need to get that value out" (P8)*

## Findings – K,I&D Assets are not managed well

- It often takes a crisis or severe financial loss to change the attitude.

  *"If people aren't suffering pain, they would not be likely to want to do something differently" (P3)*

- Management of non-tangible assets is often only done for compliance

## Findings – Governance

- Governance is important. Knowledge, Information & Data Assets should be owned; someone has to take responsibility for it.

- The structure of organizations often does not include a role that is responsible for K,I&D Asset management

- The person responsible for managing the K,I&D Assets must be at the correct level to influence the strategy of the organization

*"There needs to be a disciplined approach to dealing with information, such as naming documents properly so people will be able to find them" (P1).*

## Findings – Governance

- CIO is in charge of data, information and knowledge BUT often has a technical focus

> *"He wasn't interested. It wasn't an issue to him. Nobody had come to him and said you need to get information in order. His focus was on the technology element. For him, his biggest issue was speed and access. That's what he focused on. Not actually the managing of the information and the content" (P1)*

## Findings – Cost, value, benefits realisation not done

- Most companies have never assessed the cost, value and benefits of intellectual asset management.

> *"We don't cost them, and we don't give them the level of value that they probably deserve. I think we're slowly waking up to that. But is it getting the attention that it deserves? Yes, slowly. Is it top priority? No." (P8)*

## Findings – IT, hardware and software are often seen as solutions to the problem

Information technology, hardware and software are often seen as solutions to the problem, rather than an increased focus on the content (data, information and knowledge).

*"The MD just assumed that the work we wanted to do was a technical solution, so I've been very careful in all the change communications that we've talked about when I deal with him that it's not" (P1- CKO)*

Often referred to as 'vendor panacea'

*"IT people talk about it with levels of certainty that are unjustified. They're like the Merc salesman who's basically saying, you'll never have a problem. Well, it's just [nonsense], eventually you will"*

## Findings – IT, hardware and software are often seen as solutions to the problem

Organizations often spend too much on IT infrastructure and software and very little on data management and –quality.

> *"We spent a lot of time fixing holes in the bucket and beating it into different shapes. But fundamentally the stuff inside was still rancid. What was in there wasn't right and we needed to get it fixed. So the approach we've taken for many years is that we would put chemicals in the bucket to try and purify the water. Well somebody else comes along and throws more rubbish into it and makes it polluted again, because we haven't really looked at what the problem is, what's actually causing that pollution of the water in the bucket." (P5)*

## Barriers to governance and management

- Information - and Knowledge Management is an evolving industry – the language is not well-defined yet
- The necessary management tools do not exist yet
- The benefits are not always obvious
- The cost of managing intangible assets is not understood

*"You misappropriate $1 million and it comes out. It's $1 million, where is it? You lose a truck, where's the truck? You know, shareholders look at the dollars, the physical assets, the physical liabilities, the generation of wealth. But this is nebulous." (P10)*

## Barriers to governance and management

- Lack of education and training

*"It [Information Management] is not yet a recognized discipline. People confuse it with information technology, which is not information management." (P9)*

- The focus gets lost in other priorities and day-to-day activities

*"We've just been through the GFC and sales are tough and business is tough... and we've got a lot of immediate priorities to generate better cash flows and better returns to shareholders and stuff. You get locked up a bit in the here and now" (P9)*

*"There are just other priorities, you know, a thousand priorities." (P3)*

## Barriers to governance and management

- Executive support is crucial, yet often absent

*"Something we're still not comfortable about is the support from the top. There are a lot of good words spoken. A challenge we have at the moment is trying to make sure that at the top they're actually putting the money where their mouth is. It's not because they don't want to or that they don't believe it, there are so many competing priorities." (P5 – data manager)*

- Board members are more focused on strategy and managing risk

*"From my perspective as a director you just don't see that, unless something goes wrong ... it's not on the radar. It's not considered to be a big enough risk. Is there a better way of doing it, whatever? But it's just not on the agenda"*

## Barriers to governance and management

- Data, information and knowledge are managed in silos
- Managers are often ‘cushioned’ by staff and are therefore unaware of the issues regarding searching for documents, etc.
- People resist sharing knowledge
- Sharing information and knowledge is often seen as a security risk

  *“Well, this is an interesting document, for example, but in the wrong hands it could be dangerous. Because I understand the nuances of this document and it's of interest to me but if you come into it cold, you're not going to get it and you might use it inappropriately. That means someone's got to sit down and write a whole lot of notes that sit around that document - you know, beware, this is the background, this is how you should use it and that requires effort.” (P2)*

## Research Summary

- In the aftermath of the GFC, business performance, risk management and compliance have rarely been more important and increased regulation and control is likely.
- Data, information and knowledge assets are crucial for competitiveness and growth, especially in certain businesses
- Managing these assets is usually poorly done, but improvement is possible. The benefits of doing so are significant
- Governance is a prerequisite - Although sharing knowledge should be everyone's business, someone should be held accountable and take responsibility for data, information and knowledge
- The effective deployment of data, information and knowledge is a topic that should be of vital interest to senior leaders