Ensuring ‘ROI’ and ‘ROE’ on Taxonomy Programs

Marti Heyman

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The Importance of ROI and ROE

- **Ensure stewardship of corporate resources**
  - Demonstrate care:
    - in the use of available funds
    - in the use of available human resources
    - in the use of available IT resources

- **Maintain and enhance professional credibility**
  - Demonstrate rigorous analysis and planning

What's Wrong with ROI/ROE Arguments?

- **Most ROI arguments for Taxonomy Programs are based on assumptions which can not be proven or validated**
  - Assumptions about effort spent searching
  - Assumptions about reasons for searching
  - Assumptions about what staff will do with time no longer spent searching
  - Assumptions that all re-creation of "existing" content is not potentially an enhancement of that content
  - …….

What's Wrong with ROI/ROE Arguments?

- **Taxonomy Programs are NEVER done in a vacuum**
  - If they are, you won't be successful
  - Typically 'just' one component of a complex series of programs aimed at solving a knowledge discovery problems
    - Other programs are beyond your control and influence
    - Multiple programs means multiple actions influencing the changes in multiple variables
    - Any experiment with changes to multiple variables results in results you can't reliably explain
    - In other words, you won't know true cause and effect
  - And therefore you cannot claim the ROI/ROE for the Taxonomy Program

What's Wrong about ROI/ROE Arguments?

- **Some of the "suspect" calculations:**
  - **Time saved** searching for the right information
    - Assumes the amount of time spent searching
      - No way to accurately measure and validate this assumption
    - Statistically valid sampling of target population not feasible
    - Ignores the wide variety of types of queries
      - Scanning the literature to get a sense of it
      - Seeking a specific, known resource
      - Seeking a concise answer to a narrow question
      - Seeking any data point to get a broad understanding of the topic

What's Wrong about ROI/ROE Arguments?

- Some of the "suspect" calculations:
  - **Increased productivity**
    - Assumes workers will do something productive in the time now "saved" in searching
    - Assumes workers aren't producing better versions when they have to re-create content which supposedly already exists
    - Essentially, though, not a statement that can be measured and proved in most circumstances

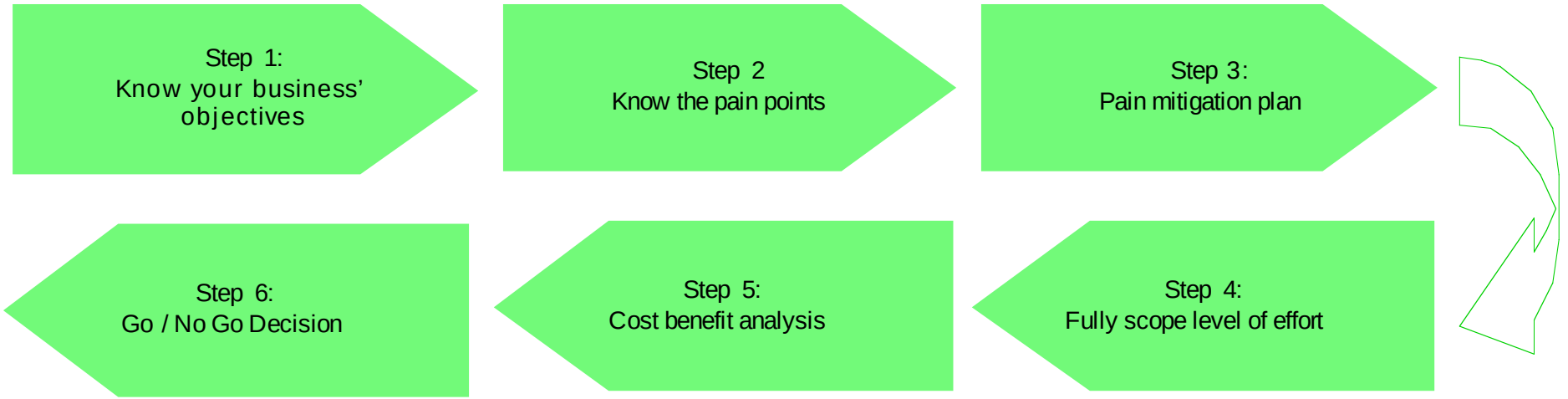
What's Right about ROI/ROE Arguments?

- **ROI/ROE in "context" of knowledge discovery**
  - Consider all efforts underway to improve knowledge discovery, including:
    - taxonomy program,
    - search engine,
    - user experience,
    - and content enhancement
- **Some environments will support "Taxonomy in a vacuum" and valid ROI/ROE calculations**
  - Customer support centres
    - Decreased time to closure:
      - Cutting costs
      - Increased sales
  - Online Retail
    - Increased sales

The Criticality of ROI and ROE Analysis

- **Still need to ensure stewardship of corporate resources**
  - Or you won't get any more resources and may lose what resources you have!
- **Still want to maintain and enhance professional credibility**
  - Or you won't get opportunities to grow your professional skills (and income!)
- **The best way to do both is to demonstrate rigorous analysis and planning**
  - You can do this without relying on suspect ROI/ROE calculations
  - The analysis still respects the INTENT of ROI/ROE

Analysis Steps



The Analysis Steps – Know What Your Business is Trying to Achieve

Step 1:
Know your business' objectives

- **Know the business objectives for knowledge discovery**
  - Examples:
    - Reduced time for knowledge discovery
    - Increased richness of knowledge discovery
    - Decreased risk to firm of making business decisions with partial information
    - ……..

The Analysis Steps – Know where the Business is Facing Problems

Step 2
Know the pain points

- **Where is the pain in current state?**
  - Identify what's preventing achievement of goals
  - Examples:
    - Objective: Reduced time for knowledge discovery
      - Poor relevancy of search results
      - No single point of access to all resource discovery (either browse or search)
      - No advanced search utilizing facets
      - No ability to narrow search results using filters

The Analysis Steps – Know How Taxonomy Program will Assist Business

Step 3:
Pain mitigation plan

- **Where is the opportunity?**
  - Identify where your program can assist the business
  - Be honest about what benefits can be achieved
  - Explicitly map taxonomy benefit to the achievement of business objectives
  - Be sure to document !!
    - This is not an academic exercise
    - This step is the foundation of the justification of the taxonomy program
    - The document is a tool for communicating your program's value

The Analysis Steps – Know How Taxonomy Program will Assist Business

Step 3:
Pain mitigation plan

- Example of explicitly mapped taxonomy benefit to the success of business objectives
  - **Objective:** Disambiguate language so as to facilitate effective, efficient knowledge discovery within a single knowledge base or across multiple knowledge bases
    - **Supports resolution of:**
      - Poor relevancy of search results
      - No single point of access to all resource discovery (either browse or search)
    - **So as to achieve the business goal of:**
      - Reduced time for knowledge discovery

The Analysis Steps – Full Scoping of Effort

Step 4:
Fully scope level of effort

- **Program Design Considerations**
  - Multilingual - How many languages?
  - External Standards - Compliant with ANSI/NISO Z39.19 and ????
  - Extent of adoption - Entire business, one unit, multiple countries?
  - Extent of implementation - Use in one or more CMS, one or more search technologies, CRM, SCM, or HR systems……
  - Business sponsor/owner - Single business owner or cross-business committee?
  - Human resources - Dedicated “team” for on-going maintenance and support or community of part-time staff ?
  - How extensive will it be - Depth and breadth within and across facets
  - How extensible will it be – Will there be need to customize (local extensions)

The Analysis Steps – Full Scoping of Effort

Step 4:
Fully scope level of effort

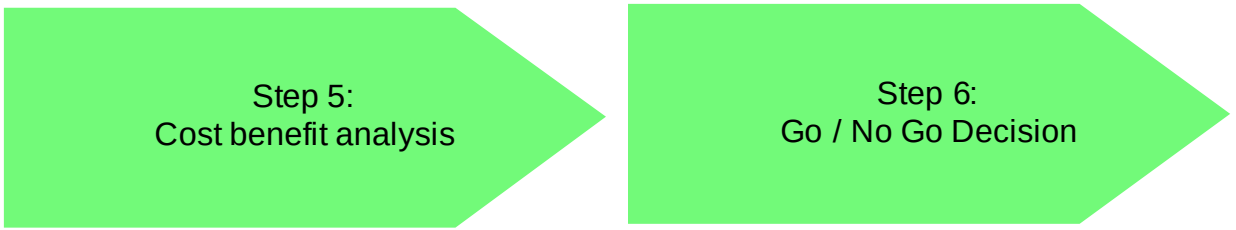
- **Program Design Considerations**
  - Projected frequency of revisions
  - Version control
  - Vocabulary Management Software
  - Human Resource skill sets
    - Information science,
    - Information technology,
    - Business knowledge
    - User experience/graphic design

The Analysis Steps – Full Scoping of Effort

Step 4:
Fully scope level of effort

- **Quantification of Effort and Investment**
  - Estimate human resource effort (days, dollars)
    - Cost of Development
      - 8 to 10 concepts per hour (depends on complexity)
    - Cost of Translation
      - 50 concepts per hour (depends on complexity)
    - Cost of Maintenance (depends on volatility)
      - *20 to 30 concepts an hour*
  - Estimate hardware and software costs (dollars)
      - Cost of vocabulary management software purchase, maintenance, and enhancements

The Analysis Steps – Cost/Benefit Assessment



- **Full costing: Total Cost of Ownership**
  - Training of indexers
  - Training of those who will maintain
  - Cost of effort to integrate into systems
  - ……..
- **Final Analysis**
  - If Benefits > Costs, then do it!
  - If Costs > Benefits, then don't do it!
    - Options are to redesign effort or determine new route to support achievement of business goals

Credibility – Avoid ROI/ROE Quantification if you Can!

- **Your objectives should be:**
  - to demonstrate a rigorous analysis of what the business is trying to achieve and how controlled vocabularies will contribute to achieving those goals
  - to demonstrate a complete knowledge of the true costs of the effort and clear mapping of results to benefits
  - to demonstrate the benefits are not overshadowed by the costs
- **You should always avoid:**
  - any hard dollar claims of cost savings or increased revenue – you'll have to prove it and you probably won't be able to

Credibility –
Avoid ROI/ROE Quantification if you Can!

- Return on Taxonomy Programs:
  - not return in a financial sense
  - but return in terms of **capability and opportunity gained** by using controlled vocabularies

- The “real” discussion should be about the simple fact that controlled vocabularies are a **core part of the infrastructure**, the same as the IT hardware and the physical buildings.

Controlled Vocabularies – Critical components of infrastructure

- Would you ever consider building a physical, public library building and filling it up with books, periodicals and resources without also providing a mechanism (or two) for finding the information?
  - Why do we then actually do that in a digital environment?
  - We shouldn't present Taxonomy Programs as "nice to have"
    - but as **critical** to have components of the **infrastructure**