Ensuring ‘ROI’ and ‘ROE’ on Taxonomy Programs

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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

Step 1: Know your business’ objectives

Step 2: Know the pain points

Step 3: Pain mitigation plan

Step 4: Fully scope level of effort

Step 5: Cost benefit analysis

Step 6: Go / No Go Decision
The Analysis Steps –
Know What Your Business is Trying to Achieve

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

- 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

Step 2
Know the pain points
The Analysis Steps –
Know How Taxonomy Program will Assist Business

- 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

- 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

Program Design Considerations

- Multilingual - How many languages?
- External Standards - Compliant with ANSI/NISO Z39.19 and what?
- 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

- 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

Step 4:
Fully scope level of effort
The Analysis Steps – Full Scoping 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

Step 4: Fully scope level of effort
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