

The Tacit Taxonomy

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Agenda

- **Defining a Tacit Taxonomy**
 - What's a Taxonomy?
 - What do you mean by Tacit?
 - Example of a Tacit Taxonomy
 - Why is it important to understand Taxonomy and Tacit?
- **ABC's of Developing a Tacit Taxonomy**
 - Understand How It Got that Way
 - Put a Value on It
 - Impact Inventory and Prioritization
 - Do the Dirty Work
 - Organize the Structures According to Use
 - Assimilate and Monitor
- **Considerations for a Tacit Taxonomy**

Defining a Tacit Taxonomy

What's a Taxonomy?

My thoughts

- *An organizing structure or method to facilitate ease of use*

Wikipedia definition

- **Taxonomy** (from **Greek** verb *τασσεῖν* or *tassein* = "to classify" and *νόμος* or *nomos* = law, science, cf "economy") was once only the science of classifying living organisms (**alpha taxonomy**), but later the word was applied in a wider sense, and may also refer to either a classification of things, **or the principles underlying the classification**. Almost anything, animate objects, inanimate objects, places, and events, may be classified according to some taxonomic scheme.

Examples

- Libraries
- Grocery stores

What do you mean by Tacit?

My thoughts

- *Something that can be understood without using words to explain it*

American
Heritage
Dictionary
definition

- Tac·it [*tas-it*]
 1. understood without being openly expressed; implied: tacit approval.
 2. silent; saying nothing: a tacit partner.
 3. unvoiced or unspoken: a tacit prayer.

Example

- With knowledge work we understand the importance of getting tacit knowledge out of our engineers minds and made into explicit content.

An Example of a Tacit Taxonomy

My thoughts

- *An organizing structure or method to facilitate ease of use according to purpose or use*

Examples

- My pantry
 - Organized according to use
 - Space constraints (i.e. cans vs. boxes)
 - Use (i.e. baking vs. cooking vs. snacking)
 - Frequency of use (i.e. baking vs. eating)
 - Household preference (i.e. favorite snacks vs. specialty ingredients)
- So let's explore that a little more...

An Example of a Tacit Taxonomy, cont.



Here's my Pantry!

- I recently was married and through the move-in process, found myself with the task of organizing what had never been organized before.
- My husband and I love to cook, but I could NEVER find anything in the pantry
- I began the rigorous process of organizing the pantry according to the following criteria:
 - Space constraints (i.e. cans vs. boxes)
 - Use (i.e. baking vs. cooking vs. snacking)
 - Frequency of use (i.e. baking vs. eating)
 - Household preference (i.e. favorite snacks vs. specialty ingredients)

An Example of a Tacit Taxonomy, cont.



- Space constraints: cans vs. boxes
 - Boxes require more space than cans
- Use: baking vs. cooking vs. snacking
 - Clump food together according to use
- Frequency: baking vs. eating
 - Keep within reach items used most frequently
- Preference: favorite snacks vs. specialty ingredients
 - Keep snacks readily available while specialty items are located according to use
- Result is a taxonomy tacitly organized according to use **AND** it maintains itself (in use since February 2006) ☺

An Example of a Tacit Taxonomy, cont.

- KM solutions address these same parameters for the content they index:
 - Space constraints
 - Need to manage different content types (video clips, flash files, pictures, PDFs, emails, Instant Message threads, etc.) based on source, size and intent
 - Use parameters
 - Reflected through words in taxonomy, dictionaries, etc. (Knova's K-Map structure or 7.0's context layer)
 - Frequency
 - Promotion features (i.e. Knova's Best Bets, 7.0's Visual Search Manager)
 - Analytics (Knova's Analytics)
 - Preference
 - User interface configurations, profiles, access levels

Why is it important to understand Taxonomy and Tacit?

Because three areas need attention:

1. Gap in our taxonomy
2. Don't know customer perspective
3. We expect them to use our words to find what they need

WHICH MEANS...

- Customers may never really find what they need.
- Customers will continue to have degraded service experiences.
- Perpetuated call volume with a roadblock to deflection.

ABC's of Developing a Tacit Taxonomy

S e p t e m b e r 2 4 - 2 7 , 2 0 0 6

Understand How It Got that Way

- **Assess holistically**
 - Knowledge Management
 - Resource Management
 - Performance Management
 - Interaction Management
- **Develop YOUR use parameters**
 - I.e. space constraints, use, frequency, preference
 - I.e. Where is it happening, Why is it happening?, When is it happening? and What is happening?
- **Continual cycle**
 - Assessment and development for use parameters must be iterative and ongoing

Assessment – Example

Knowledge Management



– Structures

- Solution-based Architecture MEDIUM PRIORITY
- “Right for Me” Dynamic Content MEDIUM PRIORITY
- **Informational and Domain Metadata** **HIGH PRIORITY**

– Access

- Personalized Intelligent Navigation MEDIUM PRIORITY
- **Demand Topologies** **HIGH PRIORITY**

– Processes

- **A-Loop/I-Loop** **HIGH PRIORITY**
- Pro-Social Behaviors MEDIUM PRIORITY
- **Increasing Returns** **HIGH PRIORITY**
- Levels MEDIUM PRIORITY

Put a Value on It: Impact Value

We need to understand the Impact

- Volume doesn't tell us everything.
- Consider different meaningful business variables.
 - Customer value (revenue-based, contract-driven)
 - Severity
 - Complexity (product maturity or TTR)
- Create a balanced calculation to show the measured impact of each customer interaction.
- Results in a number (relative to our scale) associated to each interaction we want to value.

Impact Value Model – Example

Incident Value Calculation										
			Option 1				Option 2			
Key	Description	Value	Max.:	Basic	Weight	Value	Max.:	Basic	Weight	
Importance				300			300			
	T1	Tier 1	300			300				
	T2	Tier 2	250			250				
	T3	Tier 3	200			200				
	T4	Tier 4	150			150				
	T5	Tier 5	100			100				
Customer	<i>Hot</i>			200			200			
	1 - Hot	Hot customer	200			200				
	0 - Calm	Non hot customer	0			0				
	<i>Special</i>			200	500	25.00%	200	200	700	35.00%
	1 - Special	Special situation	200			200				
	0 - Standard	Standard situation	0			0				
Service level				200			400			
	1 - PLATINUM	Platinum	200			400				
	2 - GOLD	Gold	150			350				
	3 - SILVER	Silver	100			300				
	4 - BRONZE	Bronze	50			250				
	5 - WARRANTY	Warranty	25			200				
	6 - T&M	T&M	10			100				
Severity	Severity			500			600			
	P1	Critical problem	500			600				
	P2	Serious problem	400		500	25.00%	500	600	30.00%	
	P3	Medium problem	300			350				
	P4	Low problem	100			200				
Problem	Complexity			1000			700			
	1 - Complex	High complexity	1000			700				
	2 - Ambitious	Medium complexity	500			500				
	3 - Simple	Low complexity	200		1000	50.00%	200	700	35.00%	
	<i>Sensitivity</i>			200				200		
	1 - Sensitive	Sensitive product	200			200				
0 - Mature	Non sensitive product	0			0					
Basic elements max.:				2000			2000			
<i>Flags ("Adders") max.:</i>				600			600			
Incident Value max.:				2600			2600			

Impact Inventory and Prioritization

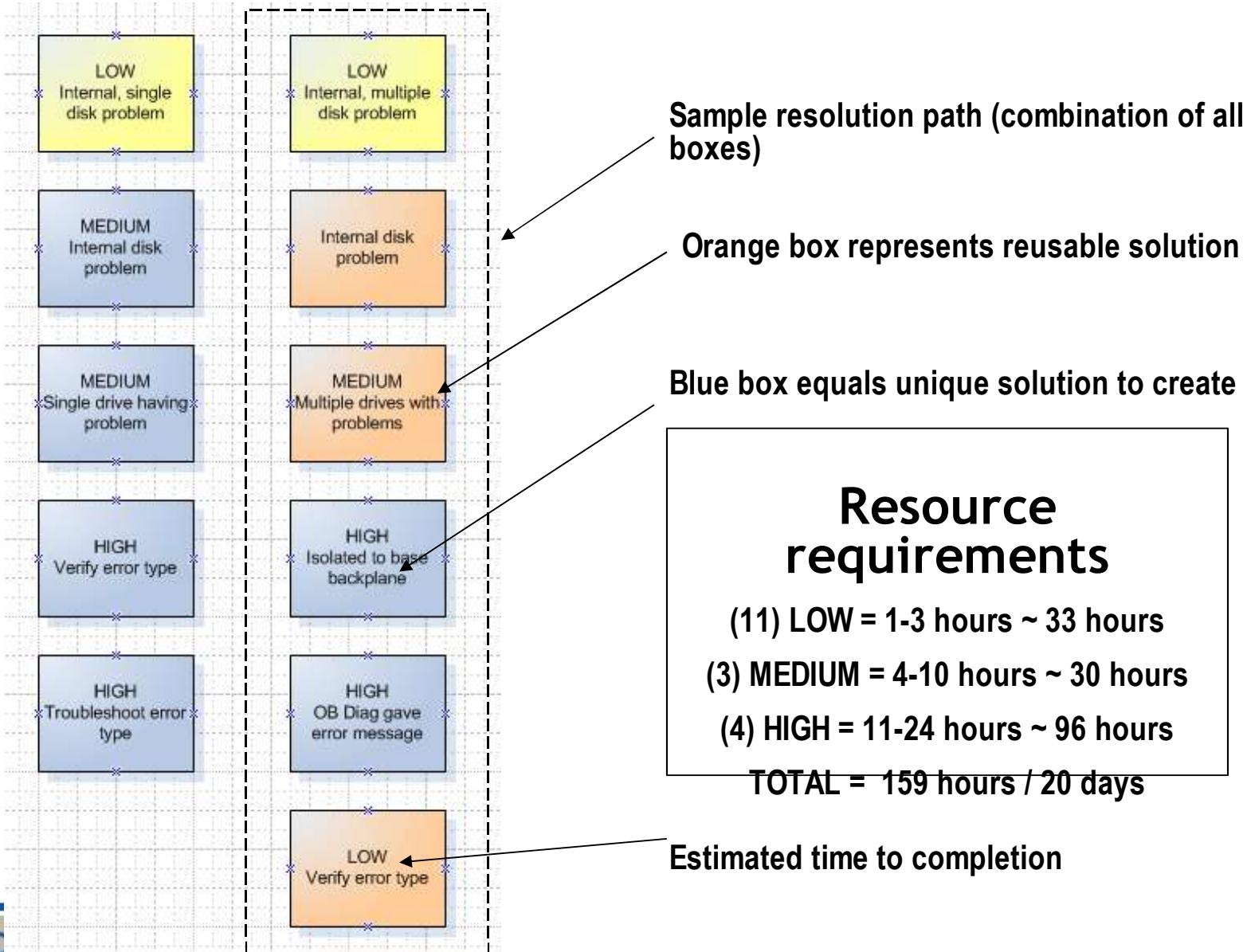
- Use existing CRM or call tracking data.
- Map to Impact Value model.
- Calculate an Impact Value for each interaction in the data set.
- Prioritize into heaviest hitters or value buckets.

Collectio	Bucket	KO ID	Cases	Case Ratio	Cost Avg	Cost Sum	Cost Ratio
Network	Unknown Host		334	2.39%	55.9	18619.7	2.25%
	RPC		218	1.56%	83.0	18093.9	2.18%
	RAP		331	2.37%	54.6	18069.3	2.18%
	Inactivity Timeout		140	1.00%	99.8	13974.3	1.69%
	Unable to Send		97	0.70%	85.9	8246.6	1.00%
	Connection Refused		109	0.78%	64.0	6972.4	0.84%
	Connection Timed Out		50	0.36%	88.6	4428.5	0.53%
	Firewall		41	0.29%	46.6	1910.5	0.23%
	Client Backup Fails		57	0.41%	31.6	1801.1	0.22%
	Operation would block		26	0.19%	63.5	1650.9	0.20%
Network Total			1403	10.05%	66.9	93767.1	11.32%

Doing the Dirty Work – Normalization

- “Normalization” is a method for managing the relevance, quality, findability and long-term viability of content.
- Focus on highest impact value problems
 - Assess existing content value and viability
 - Create, merge or purge
- Resolution Paths are prescribed, context-driven content objects structured to work together and address problems.
 - Apply them in the cases of highest demand.
 - Not meant to address low-volume special cases.
 - Object-oriented for high reuse.
 - Relevant regardless of expertise.
 - Conduct lab or usability testing.

Resolution Path – Example



Organize the Structures According to Use

- **Taxonomy components should include context.**
 - Information-based metadata, content-based metadata, subject tags, etc.
 - Need to build in overall context as well (what isn't literally in words)
- **Normalization tagging isn't done all at once.**
 - Resolution Paths and other normalized content are tagged with use-based tags developed during Normalization.
 - Not everything is tagged at once...we are in a demand-driven model.
- **Auto-tagging vs. manually tagging — It's a balance.**
 - Auto-tagging relieves huge resource constraints and is based on content primarily.
 - Manual-tagging is resource-intensive depending on how many tags and can be based on relationship or context.

Tacit Taxonomy: Under Development

Where I am working...	What I am trying to do...	What is happening...
The Software – Getting it running right (i.e. updates, downloads, install, capabilities, ...)	Questions about capabilities — basic or customize (i.e. what is, locate, access, set, options...)	Nothing is happening (i.e. won't start, not working...)
Terms: Release, capabilities, installation, install, update, upgrade, patch, download, application, enhancement, features	Terms: What are, obtain, set, options, locate, compatibility, requirement, preferences, permissions, modes, access	Terms: Won't start, not working
Permissions, access keys, and configurations (i.e. licensing, registrations, access levels...)	Putting things into (i.e. deposit, enter, create, maximize...)	It starts but does not complete successfully (i.e. stops working, incomplete...)
Terms: Service key, permission, preferences, security, licensing, registration, configuration, product codes, access, violation, user rights, turn on/off	Terms: Add, create, deposit, maximize, entering,	Terms: Stops working, incomplete, doesn't finish
Things we do day-to-day (i.e. multi-user modes, running tasks...)	Taking things away or lessen (i.e. remove, filter, decrease, retrieve...)	It completes but comes out wrong (i.e. bad data, wrong information...)
Terms: Multi-user mode, running	Terms: Close, remove, delete, decrease, eliminate, retrieve, receive, reverse, cancel, borrow, filter	Terms: Wrong, bad data, unexpected information
Data, files & utilities (i.e. backup/restore, convert, export, send data...)	Running a function (i.e. sell, track, mark, open, calculate...) Actions which trigger a function	It reports error
Terms: Backup, Restore, convert, versions, migration, import, export, files, inventory, archive, see data,	Terms: Calculate, run, open, customize, change, edit, modify, mark, memorize, pull, sell, track, verify,	Terms: error
Interoperability (i.e. with VPN, PC, OS, OS...)	Working with two things or moving things (i.e. reconcile, move, scroll, alphabetize, transfer...)	It works, but is degraded /damaged
Terms: network, operating systems, hardware, VPN, ODBC, PC, OS, server, disk, USB, time-out	Terms: Balance, reconcile, move, juggling, merge, trade, transfer	Terms: Degraded, slow, damage
Displays, reports, things printed (i.e. customize, align, display, ...)	Displays, reports, things printed (i.e. customize, align, display, ...)	How do I know it worked (i.e. verify, validate...)
Terms: Customize, modify, design, display, report, print, appear, show write, duplicate, format, align, disappear		Terms: Verify, validate

Assimilate and Monitor: Workflow and Metrics

- Ultimately, new products, content and customers will enter into our environment.
- Must be in a state of constant renewal and regeneration.
- **Assimilation:**
 - Construct assimilation considerations into the workflow.
 - Don't treat it like a project.
 - Create path of least resistance.
- **Monitor Impact:**
 - As we decrease TTR and more customers find what they need, impact value will go down — indicates time to reprioritize our content focus.
 - The more mature our content, the lower the impact — re-prioritize.

What does that buy us? – Results

Effects on performance as a whole (over 90 days):

	Time to Link	Time to Relief	Time to Close	Median Time to Close
Non-normalized	5	3	30	7
Normalized	4	2	23	6

Effects on performance per product (over 90 days):

	BEFORE Time to Close	BEFORE Median Time to Close	Target	AFTER Time to Close result
Networking product for UNIX	60	3	6	7
Networking product for Exchange	34	8	16	13
Windows Server	15	6	12	0
Networking product for Oracle	40	11	22	7
Management Console	16	6	12	6
Exchange Module	31	15	30	11
Snap Image Module	88	22	44	36
SQL	30	6	12	3

Considerations for a Tacit Taxonomy

S e p t e m b e r 2 4 - 2 7 , 2 0 0 6

Principles and Considerations

- Built based on USE not failures or product classifications.
 - I don't have to know what I am looking for to find it. (Use)
- Built based on the context not just the content.
 - And I don't have to use pre-determined terms expressed to find it. (context)
- Anytime we find ourselves requiring our customers to use better search terms, we have still missed the boat.
- Ongoing process — the taxonomy is a living, breathing thing.
 - If you haven't changed how they use it or why they use it, then the USE perspective should still be relevant.

Questions?

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Thank you!

Normalization Process (about 3-4 weeks)

1. Conduct demand analysis
2. Identify and secure qualified resources
3. Hold normalization workshop (about 1 week)
4. Define high level problem areas
5. Leverage demand analysis and case research to identify resolution paths
6. Populate resolution paths with new or existing content
7. Validate resolution paths thru testing
8. Track impact