

Using Metadata to Deploy Successful Enterprise Marketing Systems

David Raab, Raab Associates, Inc.

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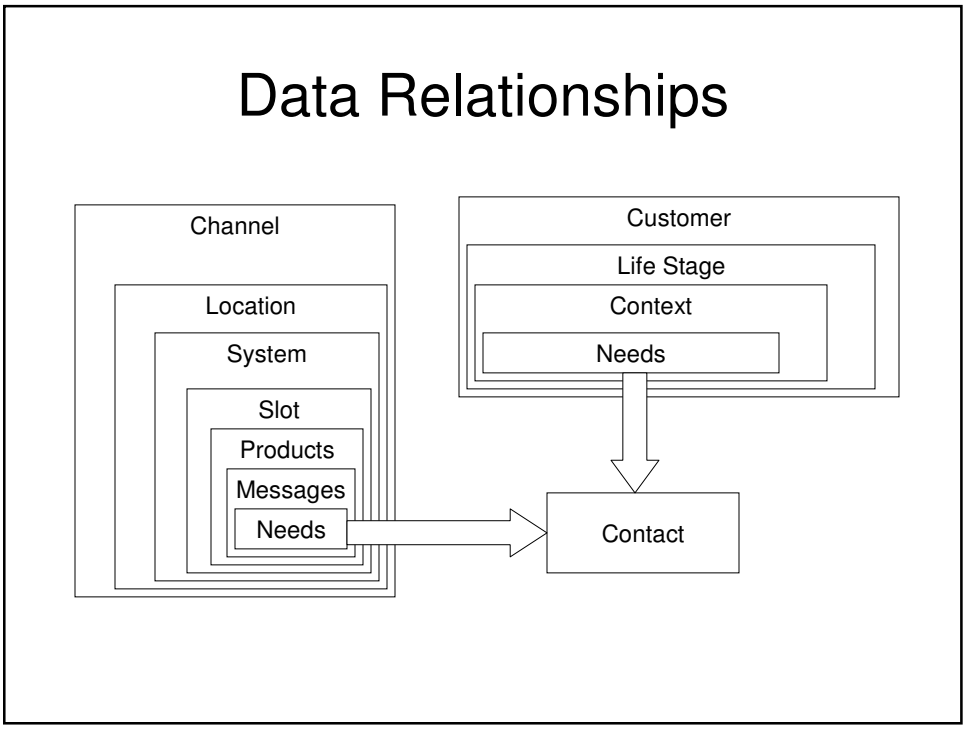
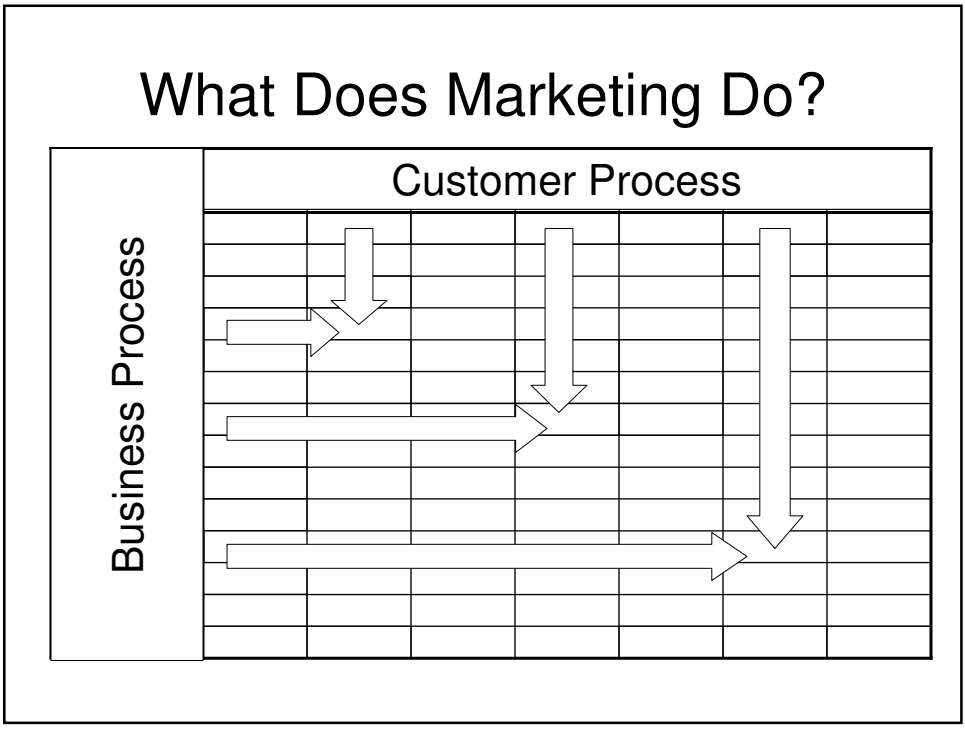
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 April 25, 2006

What Does Marketing Do?

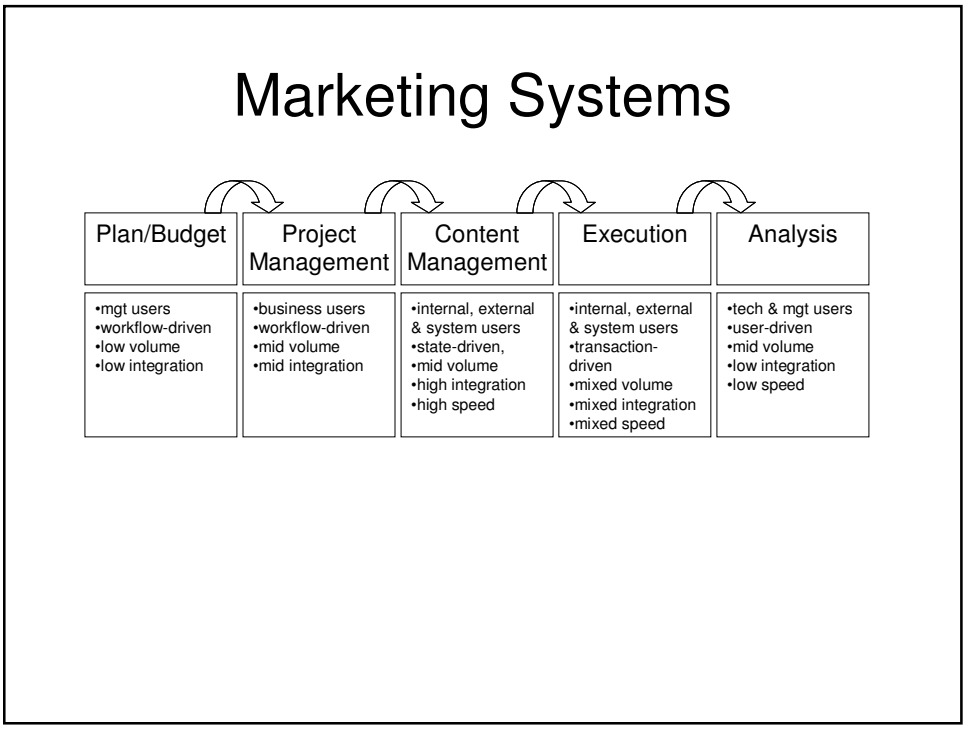
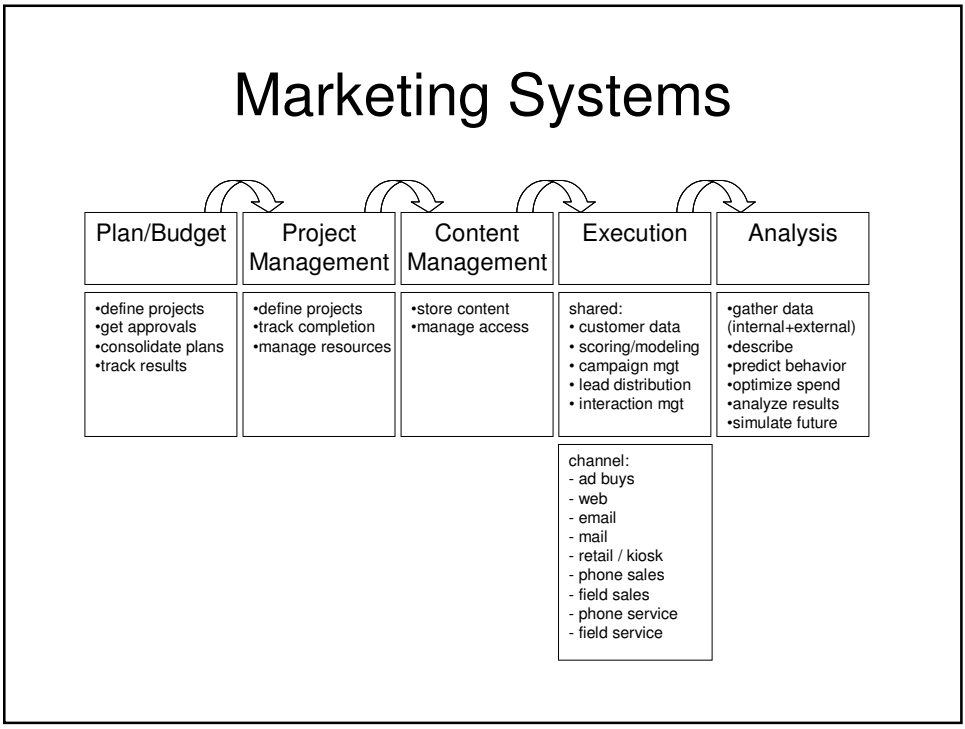
Channel:	Life Stage						
	Aware	Select	Negotiate	Finance	Support	Repair	Dispose
Dealer	x	x	x	x	x	x	x
3rd Party Retail						x	x
Events	x	x					
Field Sales							
Call Center		x		x	x		
Web	x	x	x	x	x		
Email	x		x	x	x		
Direct Mail	x						
Magazine	x						
Newspaper	x						
Radio							
TV	x						
Outdoor	x						
Community	x	x			x	x	x

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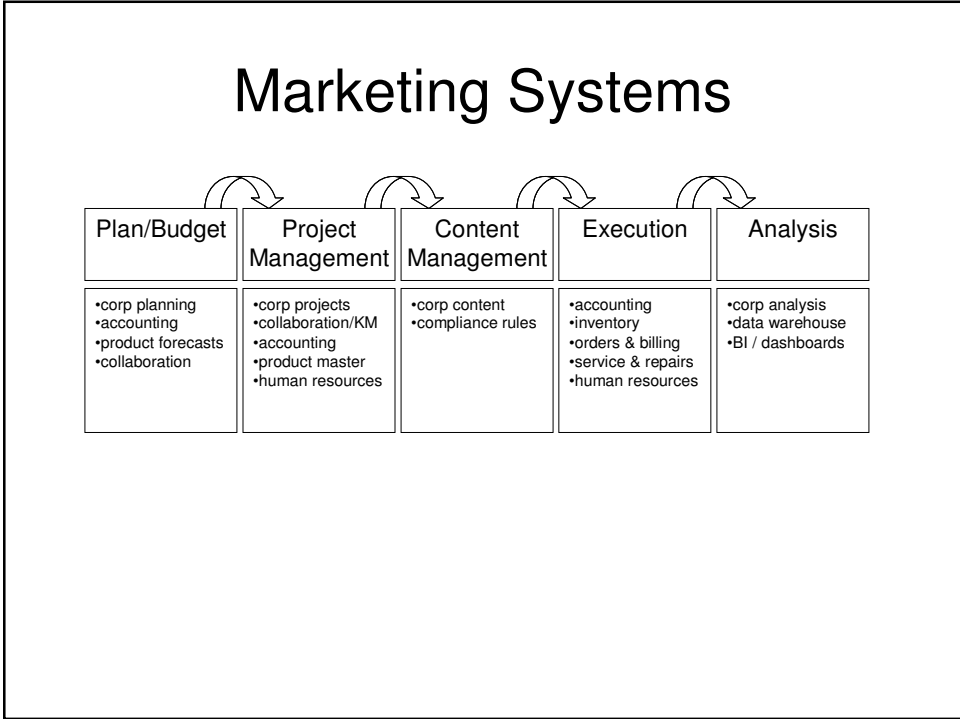
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- ## Uses for Metadata
- Technical (length, format)
 - Descriptive (of data elements e.g. full names, user-defined hierarchies)
 - Tagging (of specific entries e.g. content attributes, units of measure)

Roles for Metadata

- Connect among marketing systems
- Connect marketing systems to other systems

Challenges of Connectivity

- Repurposing data (using data for purposes other than intended)
- Integrating data (combine similar data from different external systems)
- Retranslating (pushing from marketing to operational systems)

Let's look at some details....

Major Entities

Plan/Budget	Project Management	Content Management	Execution	Analysis
Divisions	Divisions	Divisions	Divisions	Divisions
Projects/campaigns	Projects/campaigns	Projects/campaigns	Projects/campaigns	Projects/campaigns
Products/revenues	Products/revenues	Products/revenues	Products/revenues	Products/revenues
Channels/costs	Channels/costs	Channels/costs	Channels/costs	Channels/costs
People/roles	People/roles	People/roles	People/roles	People/roles
Offers	Offers	Offers	Offers	Offers
Segments	Segments	Segments	Segments	Segments
	Promo materials	Promo materials	Promo materials	Promo materials
	Tasks/dates	Systems	Systems	Systems
			Customers/partners	Customers/partners
			Context	Context

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Divisions

primary attributes	reporting relationships (hierarchy); scope type (products; geography; customer segments; channels); people by role
data sources	mostly external (accounting or corporate planning)
links to enterprise systems:	import
descriptive metadata	scope attributes (?)
tagging metadata	rollup codes
technical metadata	n/a
granularity across systems	similar; might be more detailed in execution
data / metadata issues	changes over time, synchronizing across systems, different subdivision methods across divisions or across markets within a division (e.g. territory by product in one region, by location in another), uneven hierarchies
metadata creation	most from corp reference systems e.g. accounting; may draw on standard codes for geography, product group, customer type

Projects / Campaigns

primary attributes	division, product/product group, strategies/tactics, channel, customer segment, market, dates, objectives, costs, revenues, people by role
data sources	mostly internal
links to enterprise systems	codes from corporate accounting, planning, products
descriptive metadata	category labels
tagging metadata	codes for strategies, tactics, channels, products, cost types, etc.
technical metadata	data formats
granularity across systems	more detailed in operational systems. e.g. waves within campaigns
data / metadata issues	translating across systems; each execution system has different subset of projects, probably in different structures
metadata creation	mostly internal for strategies, tactics, segments; import divisions, products, etc.; some external e.g. media markets

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Products / Revenues

primary attributes	SKU, product type/group hierarchy, version (size, color, style, localization), features (power source, diameter, thickness, materials, etc.; highly variable), price, cost, supplier, available dates, inventory (?), capacity, lead time, components, materials; from a customer perspective: needs met, quality
data sources	mostly external (product master)
links to enterprise systems	import
descriptive metadata	attribute categories and metrics; needs categories & metrics
tagging metadata	attribute codes; needs codes
technical metadata	format
granularity across systems	much more detailed in execution
data / metadata issues	translating from different systems, different groups; versions over time; units of measure; different attributes for different product types; product history (e.g. flaws, recalls)
metadata creation	internal; industry standards for sizes, colors, etc.; industry standards for data formats (e.g. date)

Channels / Costs

primary attributes	name, owner, slot details: locations, systems, capacity, dimensions, unit costs; effectiveness ratings
data sources:	some internal, details from external operational systems themselves
links to enterprise systems	import slot details
descriptive metadata	labels
tagging metadata	slot categories and metrics
technical metadata	format; wide variety of source systems
granularity across systems	very detailed in execution, content mgt & analysis
data / metadata issues	gathering slot details & keeping current; capacity by time period; inconsistent measures from different channel systems for same things; lack of accurate/meaningful costs
metadata creation	some internal, most from source systems, some standards e.g. geography, advertising units

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People / Roles

primary attributes	name, ID, system rights, role, authorities, division/department, start/end date, schedule, skills, experience, licenses & certifications, past performance, relations to other employees (current and past)
data sources	mostly external; some internal (often not integrated)
links to enterprise systems	human resources, corporate directories
descriptive metadata	labels, relationship hierarchies
tagging metadata	codes for roles, authorities, divisions, skills, etc.; some unstructured data (e.g. performance reviews)
technical metadata	format
granularity across systems	similar; but more people with more detail in operational systems
data / metadata issues	keeping current, esp. authorities; privacy; security; different role types in different systems; relating person to projects, products, tasks, etc.; dealing with unstructured data; interpreting relationships
metadata creation	most from source systems

Offers

primary attributes	product, price, positioning, availability (date, market, customer type, channel, etc.), approvals
data sources	mostly internal; may originate in execution system, planning or contact mgt system
links to enterprise systems	product master
descriptive metadata	labels
tagging metadata	codes and metrics for product, price (e.g. currency & exchange rate), geography, etc.
technical metadata	format
granularity across systems	much more detailed in content, execution and analysis
data / metadata issues	different attributes by channel; tracking availability over time; tracking versions; synchronizing across systems; different measures for same item in different systems; meaningful taxonomies (somewhat unstructured)
metadata creation	some from source systems, some standard references e.g. dates, geography

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Segments

primary attributes	demographics (age/gender/income/marital/children), purchase history, promo/response history, interaction history, estimated potential, location, known/estimated needs
data sources	execution systems and external sources; some derived data from analysis systems
links to enterprise systems	orders & billing, service & repairs, data warehouse/customer database
descriptive metadata	labels; likely to vary by market, product group
tagging metadata	demographic & cluster codes; behavior groups; persistent segment codes; needs sets & scores by product
technical metadata	formats
granularity across systems	just counts in planning; much more detailed in execution and analysis
data / metadata issues	changing definitions over time; consistency across systems; lack of actual data to classify individual customers
metadata creation	some external, mostly built by analysts

Promo Materials

primary attributes	inherited: product, channel, offer, segment(s), campaign created: treatment (=text, images, positioning), dimensions, costs, approvals, availability
data sources	internal, mostly from content mgt or execution systems
links to enterprise systems	limited; sometimes product master, sometimes accounting
descriptive metadata	labels; likely to vary by market, product group
tagging metadata	codes and metrics for treatment, dimensions, costs, etc.
technical metadata	formats (very important – highly granular)
granularity across systems	low in planning & projects; high in content mgt, execution and analysis
data / metadata issues	tracking status (approvals, availability); synchronizing taxonomies across channels; treatment of graphics, unstructured text; synchronizing versions across channels
metadata creation	some inherited, some internal, some industry standards (e.g. advertising dimensions, media markets)

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Systems

primary attributes	channel, locations within channel, traffic by location, availability/capacity (in time; planned vs. potential), delivery formats (e.g. color vs. b/w, interactive or not), owners, slots details (position, size, unit costs, volume) [note: can have slot without systems e.g. advertising spot];
data sources	mostly from systems themselves
links to enterprise systems	inventory, orders & billing, service & repairs, compliance
descriptive metadata	labels
tagging metadata	location, time, and position codes; capacity measures
technical metadata	formats
granularity across systems	low in planning and projects; some in content mgt; much in execution and analysis
data / metadata issues	keeping current with status, locations, capacity, availability, etc.; gathering actual contacts delivered
metadata creation	mostly internal; some inherited e.g. location codes

Customers/ Partners

primary attributes	name, address, phone, email, etc.; demographics (age, gender, income, education, etc.); area demographics; location vs. channels/outlets; message / response history, purchase /payment history, service history; known & inferred needs; past and future value; scores (response, attrition, payment, etc.); persistent and ad hoc segments; behavior patterns
data sources	mostly operational systems, some external sources
links to enterprise systems	orders & billing, service & repairs, product master
descriptive metadata	labels
tagging metadata	codes for demographics, clusters, needs, attitudes, segments, patterns; measures and groups for purchases, value, responsiveness by product, message, channel, etc.
technical metadata	formats; many systems
granularity across systems	highly detailed in execution and analysis, not present elsewhere
data / metadata issues	customer identity across systems; customer needs determination; integrating unstructured data (e.g. email comments); identifying complex behavior patterns; reducing anonymity; privacy; coordinating treatments across systems
metadata creation	mostly internal, based on analytics

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Context

primary attributes	customer state (location, needs, history); company state (system, channel, offers, inventory levels, product profitability); external state (weather, competition, holiday/season, economy, etc.)
data sources	mostly execution systems, some external
links to enterprise systems	inventory, orders & billing, service & repairs, accounting
descriptive metadata	labels
tagging metadata	codes for location type, offer type, product type, behavior pattern, season, external, etc; measures for needs
technical metadata	formats
granularity across systems	highly detailed in execution and analysis, not present elsewhere
data / metadata issues	integrating internal and external data; taxonomy for locations, offers, etc.; measuring customer needs and product/offer/message needs met
metadata creation	mostly internal; some external for location, external data (e.g. competitive advertising, weather)

- ## Observation 1
- (Tagging) metadata is the glue that integrates customer processes across systems
 - Lots of generic metadata, e.g. location codes, product groups; much is inherited from non-marketing systems
 - Better sharing of metadata will improve and streamline marketing business processes

Observation 2

- Customer process is what really counts
- Customer process metadata is not generic (needs, patterns, offers, life stages)
- More work to develop, but higher value once completed
- You need both

Thank You!

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