

Leveraging Local Data in Community Organizations

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Communities and Data

- Big Data, Open Data, Data Mining, Data Analytics...what's the big deal?

What data would you like to have?

- “We have a lot of data but we need meaningful numbers. Method that could help us qualify the data that we have .We would like to know how the Ripple effect works and also love to see people follow up. Also, a method that can help us evaluate our programs. Goal is to deepen the experience, every neighborhood, in particular children, relationship personal with people. “

What data would you like to have?

- Demographics - to plan and evaluate
 - Available database to research prospects
- Neighborhood level data
 - Census data is not enough
 - E.g. When to move to a new area?
- Supply and demand capability
 - Identify gaps in services to encourage providers to fill those gaps
- People's ability to donate

What data would you like to have?

- Specific populations
 - Youth
 - People with disabilities
- Specific topics
 - Housing – costs, people who would be homeless if they didn't have someone to live with
 - Employment data and link to transportation – what job would people have access to

Challenges

- Data
 - Obtaining feedback from users (follow up)
 - Having practical data / particular data that is useful from specific families, rather than broad Census or demographic data
 - Data and mapping tools
- Data management and quality
 - Keeping data updated
- Data & reaching potential audience
 - Getting in touch with the right person
 - Collecting their addresses to reach them
 - Collecting data of people who are not reachable by internet

Challenges

- Method
 - Are we measuring the right thing?
 - Sorting out information from data
 - What I need vs. What I would like to know
 - Not flaunting the results - making the conclusions clear and accurate
 - That makes sense to funders and the organization
 - Showing that it fits their mission
 - Reporting to people with different computer technology savvyness
 - Different locations of services
 - Affects data collection (distributed, by people working for other organizations)
 - Need for aggregation of data at higher levels such as neighborhoods
 - Communication with many different partners (e.g. 300+)
- Limited time / staff to collect and process data
 - Would be good to have someone dedicated to this
 - Being able to present data in a practical way / show everyday needs is a rare skillset

Data Capability in Community Organizations

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- Idiosyncratic, often isolated expertise – based on experiential learning

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- Where does the expertise for working with data “live” in community organizations?

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- Community -> People, places, and activity
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- What does the available data about local events and activities look like?
- What are the implications of this? What does this affect?

Bringing Big Data ‘Home’

- For some “big data” is about everywhere, every-time, everything
- But for many people and organization useful data is local data.
- Wanted: tools and strategies for bridging the gap between “big data” and local communities

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- Wanted: tools and strategies for bridging the gap between “big data” and local communities
- What is and could be done to bridge this gap?

Maturity Models

- Developmental models created to describe the degree of formality, management, and optimization of processes in an organization.
- “Maturity” refers to general level of development capability within the organization
 - From ad hoc practices, to formally defined steps, to managed result metrics, to active optimization of the processes.
- Maturity models are used for:
 - Development and feedback
 - Assessment and compliance

Example Maturity Model Levels

Level	Description
Initial	The activity is chaotic, ad hoc, and characterized by individual “heroics”
Repeatable	The activity is at least documented sufficiently such that repeating the same steps may be attempted.
Defined	The activity is defined/confirmed as a standard business process, and documented at the level of specific work instructions.
Managed	The activity is quantitatively managed in accordance with agreed-upon goals and metrics.
Optimizing	Management of the includes deliberate process optimization/improvement

Data Maturity Models

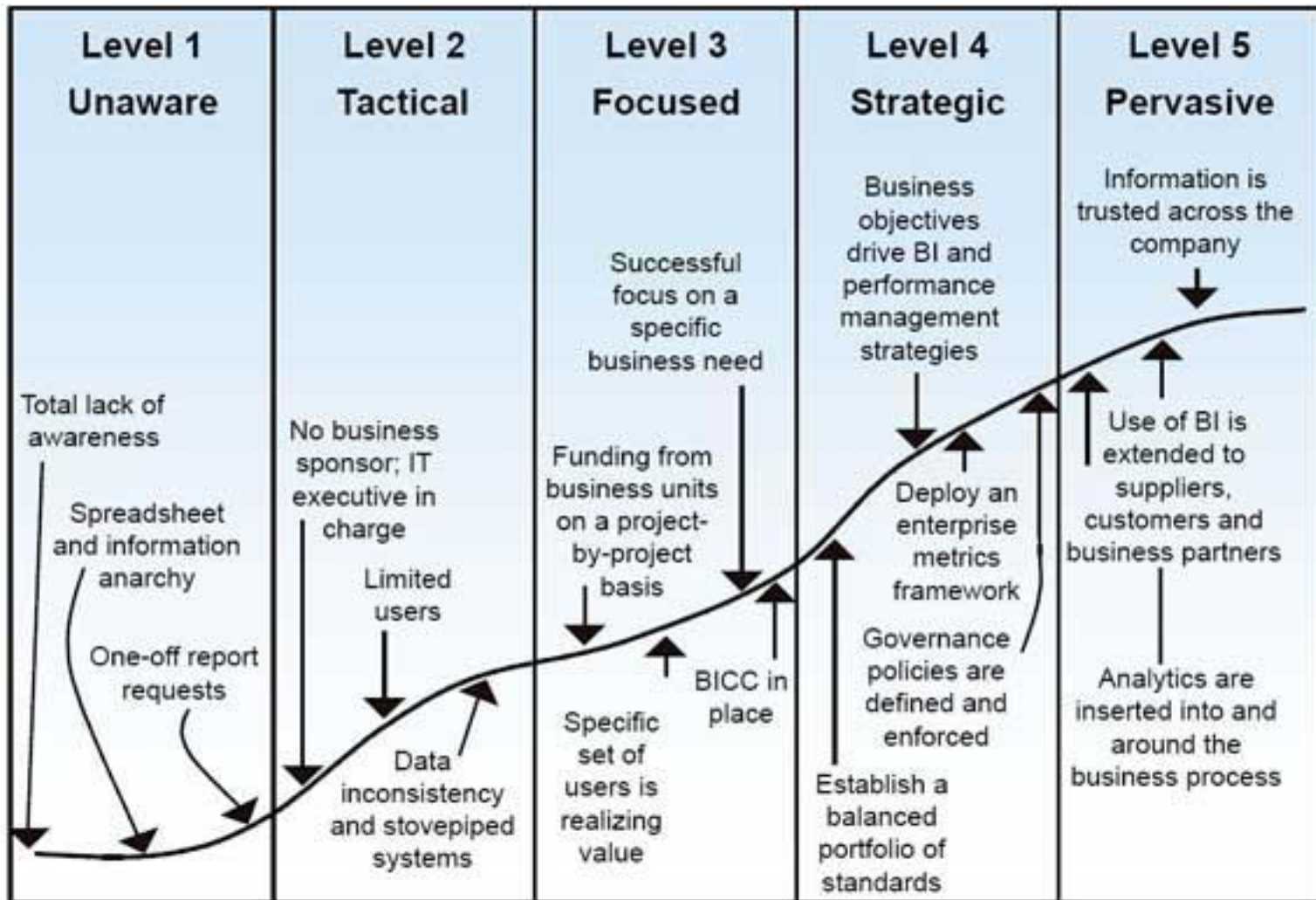
- Data Maturity Models describe the level of development of an organization's ability to effectively use data to support critical activity
- Complete data maturity models consider
 - Processes and procedures
 - Infrastructure and tools
 - Human resources
 - Data resources

Data Maturity Models (cont.)

- DMMs can have multiple dimensions:
 - Data management
 - Single/few sources, Multiple structured sources, Multiple diverse sources, Multiple diverse linked sources
 - Analytics sophistication
 - Data entity description, Substantive entity description, Causal and explanatory analysis, Predictive and prescriptive analysis
 - Analytics products
 - Raw data, textual summaries, static and dynamic visualizations, computationally-enabled data and results
 - Data culture
 - Anti-, ambivalent, accepting, appropriated

Phase Impact	The Old World			The New Era
	Pilot	Departmental Analytics	Enterprise Analytics	Big Data Analytics
Staff Skills (IT)	Little or no expertise in analytics – basic of knowledge BI tools	Data warehouse team focused on performance, availability and security	Advanced data modelers and stewards key part of the IT department	Business Analytics Competency Center (BACC) that includes 'data scientists'
Staff Skills (Business/IT)	Functional knowledge for BI tools	Few business analysts – limited usage of advanced analytics	Savvy analytical modelers and statisticians utilized	Complex problem solving integrated into Business Analytics Competency Center (BACC)
Technology & Tools	Simple historical BI reporting and dashboards	Data warehouse implemented, broad usage of BI tools, limited analytical data marts	In database mining, usage of high performance computing & analytical appliance	Widespread adoption of appliances for multiple workloads, Architecture and governance for emerging technologies
Financial Impact	No substantial financial impact. No ROI Models in place	Certain revenue generating KPIs in place with ROI clearly understood	Significant revenue impact (measured and monitored on a regular basis)	Business strategy & competitive differentiation is based on analytics
Data Governance	Little or none (Skunk works)	Initial data warehouse model and architecture	Data definitions & models standardized	Clear master data management strategy
Line of Business	Frustrated	Visible	Aligned (including LoB executives)	Cross-departmental (with CEO visibility)
CIO Engagement	Hidden	Limited	Involved	Transformative

Source: IDC Asia/Pacific Business Analytics Practice (July, 2011)



BI = business intelligence

BICC = BI competency center

Source: Gartner (December 2008)

Community Data Maturity Model

- These models are all for organizations...
- ... what would a community data maturity model look like?

- What are the levels?
- What are the indicators of each level?
- What activities and investments would be likely to help move a community from one level to the next?

To Contact Us....

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