Key Performance Indicators: Adapting an accountability tool for digital libraries

Leslie Wolf & Lena Zentall, California Digital Library
DLF Conference, November 3, 2010
Agenda

- Why KPI’s Matter
- Part 1: Brief Theory
- Part 2: Practical Application (+ Individual Exercise)
- Part 3: Your KPI Action Plan (Individual Exercise)
- Part 4: Looking Forward/Community Engagement (Discussion)
What’s The Benefit Of Learning About KPI’s?

- You: Leader & Innovator
- Your Organization: Track & Act
Why KPI’s Are Valuable

- “What gets measured gets done”
- Anything you produce of value can be measured
- Create dialog and shared understanding
Why Did Our Team Decide To Use KPI’s?

- Incoming University President launched new type of accountability initiative
- Decision-making tool
- Tells our story
By The End of This Workshop

- You’ll be able to explain KPI’s and develop them for your own institutions
- You’ll start an action plan
- You’ll have some handouts for reference
- You’ll understand how other participants are using KPI’s
- You’ll have an opportunity to get involved in a larger community of practice
Part 1: Brief Theory

- What is a Key Performance Indicator?
- What is the difference between statistics, metrics, and KPI’s?
- What are the components of a KPI?
- What does a KPI look like?
- Who uses them? Where do they find them?
Body Temperature as a Key Performance Indicator

- Widely recognized and understood
- Measured the same way by everyone
- Easy to collect and record
- Critical indicator of health
- Helps with diagnosis:
  - If fever, investigate why
  - If no fever, investigate different symptoms
More Definitions of KPI’s

- Easily collected from a reliable source
- Quantifiable (can be calculated)
- Reflects critical success measures
- Measures progress toward goals
- One of many tools in the management tool kit
- A snapshot over time
Statistics? Metrics? KPI’s?

- **Statistics** for daily tracking. Some statistics may become…
- **Metrics** to manage your service. A very few metrics may become…
- **KPI’s** for strategic planning.
Possible Components for a KPI

- Volume
  - transactions
  - page views
  - searches
- Cost
- Timeliness
- Quality
- Customer satisfaction
How to Express a KPI

Sample Equation

Total Costs ÷ Number of Searches = Cost Per Search

Two Ways to Express a KPI

1. “Number of searches” is a weak indicator
   - Is that a lot? Too little? What’s the context?

2. “Cost per search” is a better indicator
   - Ratio of 2 elements that are strongly related
   - Provides more context
   - Better diagnostic tool – more information to work with
# KPI Example: Cost per Search

<table>
<thead>
<tr>
<th>Quarter</th>
<th>KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>January – February – March</td>
<td>$0.06 per search</td>
</tr>
<tr>
<td>April – May – June</td>
<td>$0.09 per search</td>
</tr>
<tr>
<td>July – August – September</td>
<td>$0.11 per search</td>
</tr>
</tbody>
</table>
## Diagnosing Cost per Search

<table>
<thead>
<tr>
<th>Quarter</th>
<th>KPI</th>
<th>Diagnostic</th>
</tr>
</thead>
<tbody>
<tr>
<td>January – February – March</td>
<td>$0.06 per search</td>
<td>$15,000 cost/250,000 searches</td>
</tr>
<tr>
<td>April – May – June</td>
<td>$0.09 per search</td>
<td>$15,000/175,000 Cost is stable but searches are down</td>
</tr>
<tr>
<td>July – August – September</td>
<td>$0.11 per search</td>
<td>$20,000/175,000 Cost is up and searches are the same level as April</td>
</tr>
</tbody>
</table>
Digging Down on Cost Per Search

- Why are searches down?
  - Users don’t like the service… or
  - The recent upgrade made searches more efficient

- Why are costs up?
  - Did a big upgrade and used more developers
    - Can we release the developers and reduce cost?
  - Can we renegotiate the license fee?

- What else can we do to change the equation?
Who is the Audience for KPI’s

- Traditionally for senior management
- Typically reported via a dashboard
- Goal is that in a few minutes a senior manager can get a quick update on important services
- A senior manager can self-serve: no last minute request for data
# Key Performance Indicators Dashboard: Priority 1 KPI's

**UC-eLinks**

<table>
<thead>
<tr>
<th>KPI Category</th>
<th>2009/2010 FISCAL YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td></td>
</tr>
<tr>
<td>1 Total Cost of Service</td>
<td>#######</td>
</tr>
<tr>
<td>2 Total Transactions</td>
<td>#######</td>
</tr>
<tr>
<td>3 Cost Per Transaction</td>
<td>$0.04</td>
</tr>
<tr>
<td>Quality</td>
<td></td>
</tr>
<tr>
<td>4 Quality of Systems: Quality of Systems (RAMP)</td>
<td>90%</td>
</tr>
<tr>
<td>(see tabs below for details)</td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td></td>
</tr>
<tr>
<td>5 Successful transaction (clickthroughs)</td>
<td>#######</td>
</tr>
<tr>
<td>6 Total transactions (OpenURL processed -UC-eLinks window)</td>
<td>#######</td>
</tr>
<tr>
<td>7 % of successful transactions</td>
<td>72.71%</td>
</tr>
</tbody>
</table>

**Service Specific Indicators**

- User Flow (UC-eLinks)

See tab "eLinks userflow"
Cool Dashboard: Indianapolis Museum of Art

- $316,700,000: Total Size of the IMA's Endowment
- 6,646 memberships
- 48 works of art
- 256 works of art
- 21,536 visitors
- 49,389 KWH per day
- 28,299 students
- 370,048 visits

Note: All data points are dated except for 'Cool Dashboard: Indianapolis Museum of Art' which is header.
Cool Dashboard: Indianapolis Museum of Art

Dashboard Series: Artworks On Loan

256 works of art

Number of Artworks On Loan
Works of art on loan to other institutions.

This figure describes the demand and activity surrounding loans of IMA's works of art to other institutions around the world.

See the complete list
Part 2: Let’s Get Practical

- We’ll show you how we created KPI’s for UC-eLinks, which is our name for SFX (Ex Libris’s link resolver software).

- In this part, we’ll let you brainstorm a few possible KPI’s for your own service.
Step 1. Prepare

- Determine who should be part of the discussion.
  - Have a good mix of technical, product management, and customer service.
  - Invite senior managers to join in – you’ll get quicker buy-in and approval that way.
- Send some background information about KPI’s in advance (since it’s new to most people).
- Determine what a successful meeting will accomplish: what is the desired outcome?
Step 2. Brainstorm All Possible Things to Track

- What data do we already track regularly?
- In an ideal world, what would we want to track?
- What will senior management be interested in?
- What do we care about most?
- What KPI’s will tell our story best?
Step 3. Make Sure You Can Capture the Data

- After brainstorming, start to narrow down the list to what’s realistic.

- If the data is too difficult to extract, your effort will just fall apart.

- Make sure your data source is valid and you understand the definitions of the fields being captured.
Step 4. Narrow it Down to a Few KPI’s

- What we chose for UC-eLinks:
  - Cost per Transaction (when a UC-eLinks window appears)
  - % of Successful Transactions (click-thru’s)
  - User Flow
    - Track where users are going using UC-eLinks (targets)
    - Track where users are coming from using UC-eLinks (sources)
  - Quality of Systems
Step 5. Define the Data Elements

- Define what’s in a transaction.
  - The term means something different in each discipline.

- Define what costs you are going to track.
  - What can you track without too much burden?

- Define what you mean by quality of systems.
  - It can be a mind-twister; don’t make it too complicated.

- Figure out ways to track user satisfaction.
  - Are there existing surveys or trouble ticketing systems?
Step 6. Put It In Writing

- For cost: We’ll use staffing, infrastructure and licensing costs. We won’t use costs for the 10 campuses.

- For quality of systems: We’ll use a weighted average that our developers created. We’ll track Reliability, Availability, Maintainability, and Performance (“RAMP”).

- For user satisfaction: We’ll use only reported complaints since we have no survey data.
Now It’s Your Turn (Exercise)

Interactive Discussion:

- In your services, what do you think is important to track? For example:
  - Cost of service
  - User satisfaction
  - Quality
  - Volume
  - User satisfaction

- Would it be difficult or easy to track?

- What could stop you? What are the challenges?
Recap

- We defined what a KPI is
- We understand the difference between statistics, metrics and KPI’s
- We know the components of a KPI and what a KPI equation looks like
- We’ve seen a reporting dashboard
- We know how senior management uses KPI’s
How Do You Get Started?

- Get management approval for proposed KPI’s
- Set up a place to track the data (e.g. Excel worksheet)
- Get agreement on how often to track (we decided quarterly)
- Set up a test period (hands-off!)
- Start tracking and reporting
- At the end of the test period, assess and modify as needed
What We Learned

- Our timing was good. We had the data when it was requested (no fire drills).

- When everyone is focused on the KPI’s the team is more results-oriented: “What gets measured gets done.”

- We started real dialog – and sometimes lively discussions – about how well we’re doing (especially on quality of systems, which is somewhat subjective).

- KPI’s are now integral to our service roadmap and strategic planning.
More Lessons

- We hadn’t accounted for all our expenses – for instance, we didn’t add benefits to our staffing costs. (We decided not to go back and change the test KPI’s.)

- Biggest problem: No benchmarks/baseline. We didn’t know what was a good “cost per transaction.”
  - What’s the cost of improvement?
  - What’s the sweet spot to balance cost and quality?
  - When is it “good enough” (what’s the opportunity cost)?
Words of Wisdom for You

- “Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.”
  – Albert Einstein
More Words of Wisdom

- You can’t do this from the bottom up – you need senior management support.

- Numbers tell a story – understand that story **before you share it**, not after you are asked to explain the results.

- You can’t control what senior management does with the numbers when you leave the room!

- KPI’s will reveal hidden truths.
  - We worried: “What if the service is more expensive and less effective than we thought?”
Questions?
Part 3: Your KPI Action Plan (Exercise)

Take a few minutes to fill out your action plan (see the Handout)
Action Plan Questions

- What’s the first thing you’ll do when you get back to your office?
- What was the most valuable thing you learned today?
- Key Points/Things you want to explore further?
- What barriers, if any, do you foresee?
Part 4: Looking Forward

Interactive Discussion:

- Where do we go from here?
- Is there value in having a community of practice to share KPI’s with peer institutions? If so,
  - What’s the value to you?
  - How do we make it happen?
Thank You!

Leslie Wolf leslie.wolf@ucop.edu
Lena Zentall lena.zentall@ucop.edu